



# INTEGRATED RESOURCE PLANNING REPORT

to the:

Indiana Utility Regulatory Commission

Appendix – Volume 3

PUBLIC REDACTED

Submitted Pursuant to:

Commission Rule 170 IAC 4-7

January 31, 2022

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Maps are CEII and intentionally excluded from I&M's 2021 IRP filing.

**AMERICAN ELECTRIC POWER\***

**FERC FORM 715 – ANNUAL TRANSMISSION PLANNING  
AND EVALUATION REPORT**

**Critical Energy Infrastructure Information**

**DO NOT RELEASE**

**2021 FILING**

**\*Filed by American Electric Power on behalf of:**

**Appalachian Power Company  
Indiana Michigan Power Company  
Kentucky Power Company  
Kingsport Power Company  
Ohio Power Company  
Wheeling Power Company**

**AEP Appalachian Transmission Company  
AEP Kentucky Transmission Company  
AEP Indiana Michigan Transmission Company  
AEP Ohio Transmission Company  
AEP West Virginia Transmission Company**

**AMERICAN ELECTRIC POWER – 2021 FILING**  
**FERC FORM 715 – ANNUAL TRANSMISSION PLANNING**  
**AND EVALUATION REPORT**

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# **FERC Form No. 715**

## **Part 1**

### **DATA REQUEST PROCESS AND FEE SCHEDULE**

Parts 2, 3, and 6 of the completed FERC Form 715 are Critical Energy Infrastructure Information (“CEII”) as that term is defined in Section 388.113 of Title 18 of the Code of Federal Regulations.

FERC Form No. 715  
Part 1  
**IDENTIFICATION AND CERTIFICATION**

In compliance with the requirements of this FERC Form No. 715 "Annual Transmission Planning Evaluation Report" set forth in 18 CFR § 141.300, PJM Interconnection, L.L.C. (PJM) the information herein on behalf of its transmission owners subject to the reporting requirements of this FERC Form No. 715. The following is a list of the PJM transmission owners whose information is included in this report:

- AMP Transmission, LLC
- American Electric Power Service Corporation
- Baltimore Gas and Electric Company
- City of Cleveland, Department of Public Utilities, Division of Cleveland Public Power
- Commonwealth Edison Company
- Dayton Power and Light Company
- Duke Energy – Ohio and Kentucky
- Duquesne Light Company
- East Kentucky Power Cooperative
- Essential Power Rock Springs, LLC
- FirstEnergy Operating Companies:
  - Allegheny Power
  - American Transmission Systems, Inc.
  - Jersey Central Power and Light Company
  - Metropolitan Edison Company
  - Pennsylvania Electric Company
  - Trans-Allegheny Interstate Line Company
- Hudson Transmission Partners, LLC
- Neptune Regional Transmission System, LLC
- NextEra MidAtlantic Indiana
- ITC Interconnection, LLC
- Ohio Valley Electric Corporation
- PECO Energy Company
- Pennsylvania Power and Light Company
- Pepco Holdings, Inc. (PHI)
  - Atlantic City Electric Company
  - Delmarva Power and Light Company
  - Potomac Electric Power Company
- Public Service Electric and Gas Company
- Rockland Electric Company
- Silver Run
- Southern Maryland Electric Cooperative
- Transource West Virginia
- UGI Utilities, Inc. - Electric Division
- Virginia Electric & Power Company

This Part 1 contains each member transmission owner's Identification and Certification form. Requests for this information are to be directed to the following regional contact:

**Regional Contact Information**

**Address:** PJM  
2750 Monroe Blvd.  
Audubon, PA 19403

**Contact Person:** Mark J. Kuras  
**Title:** Senior Lead Engineer  
NERC Compliance  
**Phone:** (610) 666-8924  
**E-mail:** mark.kuras@pjm.com

**FERC FORM 715**  
**ANNUAL TRANSMISSION PLANNING AND EVALUATION REPORT**  
**Part 1: Identification and Certification**  
**April 1, 2021**

**Transmitting Utility Name** (Collectively referred to as "AEP")

Appalachian Power Company	AEP Appalachian Transmission Company
Indiana Michigan Power Company	AEP Kentucky Transmission Company
Kentucky Power Company	AEP Indiana Michigan Transmission Company
Kingsport Power Company	AEP Ohio Transmission Company
Ohio Power Company	AEP West Virginia Transmission Company
Wheeling Power Company	

**Transmitting Utility**

**Mailing Address** American Electric Power  
8500 Smiths Mill Road  
New Albany, OH 43054

**Contact Person**

<b>Name</b>	Nicolas Koehler
<b>Title</b>	Director, East Transmission Planning
<b>Phone</b>	[REDACTED]
<b>E-mail Address</b>	[REDACTED]

**Certifying Official**

By affixing my signature I certify that the information supplied in this filing by my Transmitting Utility is accurate.

**Signature**  \_\_\_\_\_

<b>Name</b>	Kamran Ali
<b>Title</b>	Vice President, Transmission Planning & Analysis
<b>Phone</b>	[REDACTED]
<b>E-mail Address</b>	[REDACTED]

**AMERICAN ELECTRIC POWER 2021 FILING**

**FERC FORM 715 – ANNUAL TRANSMISSION PLANNING  
AND EVALUATION REPORT**

**PART 3 – TRANSMITTING UTILITY MAPS AND DIAGRAMS  
EASTERN AEP**

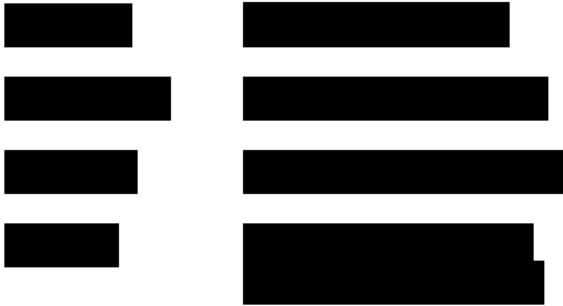
The following maps and diagrams for the Appalachian Power Company, Kentucky Power Company, Kingsport Power Company, Indiana Michigan Power Company, Ohio Power Company, and Wheeling Power Company are attached as listed:

**AEP System Map – Transmission Facilities**



2021 EHV and Major Generating Station Diagram for AEP East

**System Operating Maps [Transmission System One-Line Diagram]**





**AMERICAN ELECTRIC POWER – 2021 FILING**

**FERC FORM 715 – ANNUAL TRANSMISSION PLANNING  
AND EVALUATION REPORT**

**PART 4 – TRANSMISSION PLANNING RELIABILITY CRITERIA**

Attached is a document entitled "The American Electric Power System Transmission Planning Criteria". This document provides the criteria to test and assess the strength of AEP's transmission system to meet its load serving responsibility and provides a description of transmission planning criteria for the AEP System.

## **Purpose**

This report presents an overview of AEP's transmission planning criteria.

The AEP criteria described herein supplements the: 1) North American Electric Reliability Corporation (NERC) Reliability Standards; 2) ReliabilityFirst Corporation (RFC) Standards, 3) PJM Planning and Operating Manuals: Manual 14B, 4) SPP Criteria with Appendices Section 3, Regional Transmission Planning, and 5) ERCOT Planning Guide Section 4, Transmission Planning Criteria where applicable.

## **Nominal Voltage Levels**

Nominal 765 kV, 345 kV, 161 kV, and 138 kV voltage levels will normally be used for most new power transmission lines and are considered Bulk Electric System (BES). Some interconnection lines may be at 500 kV, 230 kV, or 115 kV to match neighboring utilities' voltage, and some 69 kV lines may be constructed in appropriate situations.

The AEP transmission facilities for the PJM and MISO regions are divided into the following three performance categories:

- **EHV Facilities:**  
Transmission lines rated 765 kV, 500 kV, and 345 kV, and transformers with secondary voltages at or above 345 kV, are considered Extra High Voltage (EHV) facilities, and are referred to as "EHV facilities" in this document. These facilities are part of the BES.
- **HV Facilities:**  
Transmission lines rated 230 kV, 161 kV, and 138 kV, and transformers with secondary voltages above 100 kV but below 345 kV, are considered High Voltage (HV) facilities, and are referred to as "HV facilities" in this document. These facilities are part of the BES.
- **Sub-T Facilities:**  
Transmission lines rated below 100 kV, and transformers with secondary voltages below 100 kV are considered sub-transmission (Sub-T) facilities, and are referred to as "Sub-T facilities" in this document. These facilities are not part of the BES.

## **Voltage Limits**

### **For the SPP and ERCOT Regions:**

Transmission level buses above 60 kV shall meet the following steady state voltage response and post-contingency voltage deviation criteria:

- 0.95 per unit to 1.05 per unit in the pre-contingency state following the occurrence of any operating condition in category P0 of the NERC Reliability Standard [TPL-001-4](#) addressing Transmission System Planning Performance Requirements. Facilities associated with series line compensating capacitors are permitted to operate above 1.05 per unit.
- 0.92 per unit to 1.05 per unit in the post-contingency state following the occurrence of any

operating condition in categories P1 through P7 of the NERC Reliability Standard [TPL-001-4](#) addressing Transmission System Planning Performance Requirements. Facilities associated with series line compensating capacitors are permitted to operate above 1.05 per unit.

- Following the occurrence of any operating condition in categories P1 through P7 of the NERC Reliability Standard [TPL-001-4](#), further analysis is required in the event of a post-contingency steady-state voltage deviation that exceeds 8% at any load-serving bus above 100 kV, exclusive of buses on a radial system that serve only Resource Entities and/or Load.

#### For the PJM and MISO Regions:

Transmission level buses shall meet the following steady state voltage response and post-contingency voltage deviation criteria:

- 0.95 per unit to 1.05 per unit in the pre-contingency state following the occurrence of any operating condition in category P0 of the NERC Reliability Standard [TPL-001-4](#) addressing Transmission System Planning Performance Requirements. Certain 500 kV facilities are permitted to operate above 1.05 per unit to match neighboring utilities operating criteria.
- 0.92 per unit to 1.05 per unit in the post-contingency state following the occurrence of any operating condition in categories P1 through P7 of the NERC Reliability Standard [TPL-001-4](#) addressing Transmission System Planning Performance Requirements. Certain 500 kV facilities are permitted to operate above 1.05 per unit to match neighboring utilities operating criteria.
- Following the occurrence of any operating condition in categories P1 through P7 of the NERC Reliability Standard [TPL-001-4](#), a voltage deviation from system normal of 8% or greater is not acceptable at any station.

Transmission voltages during emergencies should not result in customer voltages exceeding or falling below prescribed limits at distribution substations on the transmission system and voltages at generating stations below minimum acceptable levels established for each station must be avoided to prevent tripping of the generating units. Static and dynamic reactive devices and LTC auto-transformers are used in transmission substations to hold voltage levels within acceptable ranges during normal and emergency conditions. The voltage limits of these reactive devices can exceed prescribed limits if distribution regulating equipment maintains customer voltage within acceptable limits. Voltage fluctuations (flicker) are addressed in the AEP Interconnection Guidelines.

#### Thermal Limits

Thermal ratings define transmission facility loading limits. Normal ratings are generally based upon no abnormal loss of facility life or equipment damage. Emergency ratings accept some loss of life or strength, over a defined time limit for operation at the rated loading level. The thermal rating for a transmission line is defined by the most limiting element, be it a conductor capability, sag clearance, or terminal equipment rating. Thermal limits establish the maximum amount of

electrical current that a transmission circuit or electrical facility can conduct over a specified time period before it sustains permanent damage by overheating or before it violates public safety requirements. Normal and emergency transmission equipment ratings are documented by AEP standards and guidelines.

For the SPP and ERCOT Regions:

Transmission level buses above 60 kV shall meet the following performance criteria:

- No facility may exceed its normal rating in the pre-contingency state following the occurrence of any operating condition in category P0 of the NERC Reliability Standard [TPL-001-4](#) addressing Transmission System Planning Performance Requirements.
- No facility may exceed its emergency rating in the post-contingency state following the occurrence of any operating condition in categories P1 through P7 of the NERC Reliability Standard [TPL-001-4](#) addressing Transmission System Planning Performance Requirements.

For the PJM and MISO Regions:

Transmission level buses shall meet the following performance criteria:

- No facility may exceed its normal rating in the pre-contingency state following the occurrence of any operating condition in category P0 of the NERC Reliability Standard [TPL-001-4](#) addressing Transmission System Planning Performance Requirements.
- No facility may exceed its emergency rating in the post-contingency state following the occurrence of any operating condition in categories P1 through P7 of the NERC Reliability Standard [TPL-001-4](#) addressing Transmission System Planning Performance Requirements.

**Steady State Testing Criteria**

The AEP transmission system will be designed so that there are no thermal or voltage criteria violations for a maintenance outage followed by an unscheduled outage of any transmission element during off-peak load periods. Load shedding is not permitted to maintain facilities within thermal and voltage limits.

For the ERCOT Region:

Steady State testing of the AEP transmission system is in accordance with NERC Reliability Standard [TPL-001-4](#) and the ERCOT Planning Guide Section 4.

For the PJM, MISO and SPP Regions:

Steady State testing of the AEP transmission system is in accordance with NERC Reliability Standard [TPL-001-4](#).

**Short Circuit Testing Criteria**

For the SPP and ERCOT Regions:

AEP steady state planning criteria requires that no bus voltage on AEP system shall exceed 1.05 per unit under system normal or contingency conditions. This voltage limit takes into consideration the equipment capabilities on AEP system. Short circuit assessment is performed assuming 1.05 per unit voltage at all the AEP system buses.

For the PJM and MISO Regions:

AEP steady state planning criteria requires that no bus voltage on AEP system shall exceed 1.05 per unit under system normal or contingency conditions. This voltage limit takes into consideration the equipment capabilities on AEP system. Short circuit assessment is performed assuming 1.05 per unit voltage at all the AEP system buses. This is a conservative approach but accounts for a wide range of system conditions. Circuit breakers at or near a generator plant shall be analyzed differently based on the scheduled voltage at the generator bus. This exception only applies to generator plants already in operation with established scheduled voltages.

**Stability Testing and Generation Ride-Through Performance Criteria**

Stability testing of the AEP transmission system is in accordance with NERC TPL-001-4. In addition, testing of the AEP system in the ERCOT Region is in accordance with the ERCOT Planning Guide Section 4.

TPL-001-4 R4.1.3 acceptable damping and R5 transient voltage response criteria may be found in PJM Manual 14B Section G.2.2, ERCOT Planning Guide Sections 4.1.1.5 and 4.1.1.6, and the SPP Disturbance Performance Requirements document for the PJM, ERCOT, and SPP areas, respectively.

An exception to TPL-001-4 stability testing criteria is that P7 category Planning Events are simulated with three-phase faults instead of phase-to-ground faults because three-phase is more conservative for common tower structure outages.

All transmission and sub-transmission connected generation, including wind and solar projects, are required to maintain stability and continuity of real and reactive power delivery through all TPL-001-4 planning events. ERCOT generation is further required to abide by the low and high voltage ride-through requirements of Nodal Operating Guide Section 2.9.

Generation that becomes radial through a series capacitor bank or multiple series capacitor banks may be exposed to RMS voltages greater than NERC PRC-024 and RTO criteria for High-Voltage Ride-Through (HVRT) no-trip zone levels because of natural system resonance. If such a radial configuration can result from N-1 or N-2 transmission outages, the generation must remain connected and producing power for the duration of such configuration even if voltages exceed the HVRT no-trip zone boundaries. An HVRT ride-through waiver will be granted only under the following conditions:

1. Any SSR or SSCI resulting from the radial configuration is effectively mitigated, and
2. The potential loss of generation does not exceed the largest single unit in the interconnection, and

3. N-3 or greater configuration is necessary for the generation to become radial to a series capacitor, and
4. Agreed to by the RTO

## **AMERICAN ELECTRIC POWER – 2021 FILING**

### **FERC FORM 715 – ANNUAL TRANSMISSION PLANNING AND EVALUATION REPORT**

#### **PART 5 – TRANSMISSION PLANNING ASSESSMENT PRACTICES EASTERN AEP**

On an annual basis, AEP, in conjunction with PJM, develops base case power flow models for the eastern AEP transmission system, representing the summer peak, winter peak, and light load conditions. These models are developed to represent the composite transmission/generation system into the future, although not for every year or season.

On an as-needed basis, AEP performs system reliability studies for the eastern AEP operating companies to determine future system needs. Such studies analyze the effect of single contingency outages of transmission lines, transformers, and generation units. In addition, the effects of less probable contingencies are also analyzed. These less probable contingencies involve outages such as loss of all generating units at a station, loss of all transmission lines on a common right-of-way, and other events resulting in loss of two or more components. If violations of the Planning Criteria are identified by the studies, alternative solutions are developed and analyzed. The recommended solutions then become part of the PJM Regional Transmission Expansion Plan (RTEP). In the annual PJM RTEP process, PJM performs power flow analyses as outlined in Manual 14b, checking for base case and contingency thermal and voltage violations. PJM tests the mitigation plans for effectiveness in mitigating the violations. PJM also performs a Short Circuit evaluation and coordinates with AEPSC on the interrupting capabilities of fault interrupting devices and mitigation plans for any capability exceedances. The resulting mitigation plans become a part of the PJM RTEP, along with PJM interconnection projects and other AEP projects.

In performing such studies, AEP and PJM follow the practices outlined in the NERC Reliability Standards, the Reliability *First* Reliability Standards, and the AEP Transmission Planning Criteria described in Part 4.

**Vol 3, Exhibit B**

**Projected Fuel Costs**

Year	Indiana Michigan Power Company Projected Fuel Costs			
	¢/Mbtu		\$/MMBtu	
	Donald C. Cook 1	Donald C. Cook	Rockport 1	Rockport 2
2021				
2022				
2023				
2024				
2025				
2026				
2027				
2028				
2029				
2030				
2031				
2032				
2033				
2034				
2035				
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2037				
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2041				
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2044				
2045				
2046				
2047				
2048				
2049				
2050				



**(REDACTED)**

**Volume 3, Exhibit C**

**INDIANA INDUSTRIAL ENERGY MODELS  
AND INPUT DATA**

The MEANS Procedure

Variable	Label	Mean
year	year	2026.00
month	month	6.5000000
ei_imi	BILLED KWH	562.8658715

INDIANA MICHIGAN POWER COMPANY  
INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ENDOGENOUS VARIABLE

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit C  
PUBLIC REDACTED

Obs	year	month	ei_imi
1	1995	1	445.063
2	1995	2	434.885
3	1995	3	485.973
4	1995	4	462.101
5	1995	5	477.43
6	1995	6	484.029
7	1995	7	446.893
8	1995	8	483.124
9	1995	9	451.58
10	1995	10	495.133
11	1995	11	473.149
12	1995	12	454.79
13	1996	1	506.5363
14	1996	2	510.7182
15	1996	3	509.1997
16	1996	4	523.2746
17	1996	5	549.2134
18	1996	6	523.7555
19	1996	7	532.4252
20	1996	8	562.1799
21	1996	9	533.4938
22	1996	10	557.9409
23	1996	11	489.2345
24	1996	12	516.5402
25	1997	1	537.9642
26	1997	2	514.5719
27	1997	3	513.6808
28	1997	4	555.2667
29	1997	5	531.4818
30	1997	6	553.8671
31	1997	7	557.1743
32	1997	8	555.3932
33	1997	9	559.4926
34	1997	10	570.845
35	1997	11	521.8339
36	1997	12	548.9433
37	1998	1	522.1611
38	1998	2	523.2191
39	1998	3	555.7506
40	1998	4	554.6195
41	1998	5	558.8179
42	1998	6	576.8707
43	1998	7	532.5246
44	1998	8	617.8052
45	1998	9	580.4243
46	1998	10	603.798
47	1998	11	558.0011
48	1998	12	579.6036
49	1999	1	519.1415

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MANUFACTURING ENERGY SALES  
ENDOGENOUS VARIABLE

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Obs	year	month	ei_imi
50	1999	2	571.4783
51	1999	3	600.4029
52	1999	4	609.3566
53	1999	5	588.3993
54	1999	6	604.8096
55	1999	7	595.7039
56	1999	8	627.5208
57	1999	9	619.0776
58	1999	10	598.5051
59	1999	11	601.8821
60	1999	12	586.8782
61	2000	1	593.8731
62	2000	2	601.5177
63	2000	3	610.609
64	2000	4	581.0451
65	2000	5	624.1091
66	2000	6	620.2041
67	2000	7	595.2475
68	2000	8	602.1409
69	2000	9	609.4992
70	2000	10	578.3946
71	2000	11	534.1597
72	2000	12	587.5377
73	2001	1	562.522
74	2001	2	549.0661
75	2001	3	586.6955
76	2001	4	570.2732
77	2001	5	597.5152
78	2001	6	594.6218
79	2001	7	730.9623
80	2001	8	631.9577
81	2001	9	589.4201
82	2001	10	572.8912
83	2001	11	537.5029
84	2001	12	544.2759
85	2002	1	565.8917
86	2002	2	554.4982
87	2002	3	578.8751
88	2002	4	582.4315
89	2002	5	602.319
90	2002	6	594.2844
91	2002	7	602.8749
92	2002	8	614.3839
93	2002	9	617.7006
94	2002	10	591.8831
95	2002	11	580.0996
96	2002	12	580.2616
97	2003	1	573.4895
98	2003	2	558.3607

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Obs	year	month	ei_imi
99	2003	3	564.4867
100	2003	4	555.21
101	2003	5	576.1037
102	2003	6	575.6623
103	2003	7	556.9208
104	2003	8	582.2612
105	2003	9	597.5811
106	2003	10	590.5284
107	2003	11	563.8974
108	2003	12	558.1062
109	2004	1	591.1904
110	2004	2	571.6933
111	2004	3	584.2021
112	2004	4	582.1246
113	2004	5	595.1821
114	2004	6	600.7901
115	2004	7	581.1516
116	2004	8	597.2478
117	2004	9	616.325
118	2004	10	577.2869
119	2004	11	564.9906
120	2004	12	583.0957
121	2005	1	558.5265
122	2005	2	572.8868
123	2005	3	589.6879
124	2005	4	551.5711
125	2005	5	592.4665
126	2005	6	584.8243
127	2005	7	581.8307
128	2005	8	611.8744
129	2005	9	620.5461
130	2005	10	612.1391
131	2005	11	558.0226
132	2005	12	588.3965
133	2006	1	585.8103
134	2006	2	568.0625
135	2006	3	593.1102
136	2006	4	564.774
137	2006	5	601.6685
138	2006	6	589.9968
139	2006	7	591.6418
140	2006	8	614.3286
141	2006	9	604.5194
142	2006	10	569.5298
143	2006	11	561.0125
144	2006	12	571.7102
145	2007	1	554.0955
146	2007	2	552.4443
147	2007	3	580.4356

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Obs	year	month	ei_imi
148	2007	4	555.1105
149	2007	5	579.5736
150	2007	6	592.4012
151	2007	7	592.7365
152	2007	8	607.259
153	2007	9	614.2926
154	2007	10	584.8136
155	2007	11	542.5132
156	2007	12	571.0556
157	2008	1	572.9256
158	2008	2	559.9062
159	2008	3	581.6669
160	2008	4	564.7042
161	2008	5	583.4742
162	2008	6	591.2739
163	2008	7	572.7185
164	2008	8	592.4687
165	2008	9	559.4872
166	2008	10	479.4442
167	2008	11	449.3421
168	2008	12	480.4226
169	2009	1	480.3961
170	2009	2	450.4962
171	2009	3	450.8111
172	2009	4	452.2333
173	2009	5	463.4872
174	2009	6	499.5121
175	2009	7	522.7519
176	2009	8	546.6993
177	2009	9	552.8066
178	2009	10	532.8112
179	2009	11	504.974
180	2009	12	547.4043
181	2010	1	552.3489
182	2010	2	520.3179
183	2010	3	555.2909
184	2010	4	531.5204
185	2010	5	558.832
186	2010	6	541.3213
187	2010	7	547.2915
188	2010	8	577.0647
189	2010	9	545.7517
190	2010	10	528.1695
191	2010	11	538.4091
192	2010	12	584.1981
193	2011	1	556.5215
194	2011	2	509.029
195	2011	3	570.8447
196	2011	4	537.3576

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MANUFACTURING ENERGY SALES  
ENDOGENOUS VARIABLE

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit C  
PUBLIC REDACTED

Obs	year	month	ei_imi
197	2011	5	563.3275
198	2011	6	577.2622
199	2011	7	542.0551
200	2011	8	601.6735
201	2011	9	597.7811
202	2011	10	550.3301
203	2011	11	545.8797
204	2011	12	573.0644
205	2012	1	570.4171
206	2012	2	534.0153
207	2012	3	558.0769
208	2012	4	573.1815
209	2012	5	571.3803
210	2012	6	565.2665
211	2012	7	577.1958
212	2012	8	588.7895
213	2012	9	551.9438
214	2012	10	544.6008
215	2012	11	563.5895
216	2012	12	555.4219
217	2013	1	552.1268
218	2013	2	545.1737
219	2013	3	547.9073
220	2013	4	536.9473
221	2013	5	569.2039
222	2013	6	558.789
223	2013	7	577.4297
224	2013	8	562.7971
225	2013	9	589.0043
226	2013	10	559.0491
227	2013	11	561.0187
228	2013	12	562.3288
229	2014	1	535.0116
230	2014	2	533.1196
231	2014	3	573.4851
232	2014	4	567.1311
233	2014	5	585.8228
234	2014	6	581.0288
235	2014	7	591.038
236	2014	8	593.9361
237	2014	9	576.1844
238	2014	10	570.1743
239	2014	11	575.9166
240	2014	12	575.2029
241	2015	1	561.2531
242	2015	2	527.6418
243	2015	3	536.7722
244	2015	4	547.2244
245	2015	5	573.7563

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Obs	year	month	ei_imi
246	2015	6	594.801
247	2015	7	572.7484
248	2015	8	601.2221
249	2015	9	578.7481
250	2015	10	537.597
251	2015	11	527.4492
252	2015	12	589.8728
253	2016	1	544.5754
254	2016	2	559.7568
255	2016	3	587.4488
256	2016	4	573.3268
257	2016	5	583.1317
258	2016	6	595.2635
259	2016	7	598.789
260	2016	8	607.8734
261	2016	9	585.9521
262	2016	10	534.0034
263	2016	11	570.5345
264	2016	12	583.7737
265	2017	1	585.7369
266	2017	2	559.3046
267	2017	3	586.1146
268	2017	4	563.3794
269	2017	5	557.466
270	2017	6	576.0374
271	2017	7	591.6151
272	2017	8	606.0111
273	2017	9	587.2093
274	2017	10	567.7227
275	2017	11	578.0346
276	2017	12	598.5434
277	2018	1	592.6421
278	2018	2	555.9168
279	2018	3	591.6134
280	2018	4	586.0074
281	2018	5	585.6396
282	2018	6	591.7216
283	2018	7	609.3525
284	2018	8	605.4945
285	2018	9	601.7443
286	2018	10	574.0402
287	2018	11	565.5359
288	2018	12	582.9078
289	2019	1	574.7303
290	2019	2	550.0202
291	2019	3	581.6774
292	2019	4	575.1775
293	2019	5	573.8886
294	2019	6	568.8296



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Obs	year	month	ei_imi
295	2019	7	583.1765
296	2019	8	580.5804
297	2019	9	579.7264
298	2019	10	547.4396
299	2019	11	547.8022
300	2019	12	559.5783
301	2020	1	552.4036
302	2020	2	543.3627
303	2020	3	557.091
304	2020	4	461.629
305	2020	5	473.4904
306	2020	6	508.8628
307	2020	7	553.3962
308	2020	8	567.0317
309	2020	9	570.0996
310	2020	10	544.1887
311	2020	11	552.8134
312	2020	12	565.6854
313	2021	1	548.4334
314	2021	2	.
315	2021	3	.
316	2021	4	.
317	2021	5	.
318	2021	6	.
319	2021	7	.
320	2021	8	.
321	2021	9	.
322	2021	10	.
323	2021	11	.
324	2021	12	.
325	2022	1	.
326	2022	2	.
327	2022	3	.
328	2022	4	.
329	2022	5	.
330	2022	6	.
331	2022	7	.
332	2022	8	.
333	2022	9	.
334	2022	10	.
335	2022	11	.
336	2022	12	.
337	2023	1	.
338	2023	2	.
339	2023	3	.
340	2023	4	.
341	2023	5	.
342	2023	6	.
343	2023	7	.

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Obs	year	month	ei_imi
344	2023	8	.
345	2023	9	.
346	2023	10	.
347	2023	11	.
348	2023	12	.
349	2024	1	.
350	2024	2	.
351	2024	3	.
352	2024	4	.
353	2024	5	.
354	2024	6	.
355	2024	7	.
356	2024	8	.
357	2024	9	.
358	2024	10	.
359	2024	11	.
360	2024	12	.
361	2025	1	.
362	2025	2	.
363	2025	3	.
364	2025	4	.
365	2025	5	.
366	2025	6	.
367	2025	7	.
368	2025	8	.
369	2025	9	.
370	2025	10	.
371	2025	11	.
372	2025	12	.
373	2026	1	.
374	2026	2	.
375	2026	3	.
376	2026	4	.
377	2026	5	.
378	2026	6	.
379	2026	7	.
380	2026	8	.
381	2026	9	.
382	2026	10	.
383	2026	11	.
384	2026	12	.
385	2027	1	.
386	2027	2	.
387	2027	3	.
388	2027	4	.
389	2027	5	.
390	2027	6	.
391	2027	7	.
392	2027	8	.

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Obs	year	month	ei_imi
393	2027	9	.
394	2027	10	.
395	2027	11	.
396	2027	12	.
397	2028	1	.
398	2028	2	.
399	2028	3	.
400	2028	4	.
401	2028	5	.
402	2028	6	.
403	2028	7	.
404	2028	8	.
405	2028	9	.
406	2028	10	.
407	2028	11	.
408	2028	12	.
409	2029	1	.
410	2029	2	.
411	2029	3	.
412	2029	4	.
413	2029	5	.
414	2029	6	.
415	2029	7	.
416	2029	8	.
417	2029	9	.
418	2029	10	.
419	2029	11	.
420	2029	12	.
421	2030	1	.
422	2030	2	.
423	2030	3	.
424	2030	4	.
425	2030	5	.
426	2030	6	.
427	2030	7	.
428	2030	8	.
429	2030	9	.
430	2030	10	.
431	2030	11	.
432	2030	12	.
433	2031	1	.
434	2031	2	.
435	2031	3	.
436	2031	4	.
437	2031	5	.
438	2031	6	.
439	2031	7	.
440	2031	8	.
441	2031	9	.

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Obs	year	month	ei_imi
442	2031	10	.
443	2031	11	.
444	2031	12	.
445	2032	1	.
446	2032	2	.
447	2032	3	.
448	2032	4	.
449	2032	5	.
450	2032	6	.
451	2032	7	.
452	2032	8	.
453	2032	9	.
454	2032	10	.
455	2032	11	.
456	2032	12	.
457	2033	1	.
458	2033	2	.
459	2033	3	.
460	2033	4	.
461	2033	5	.
462	2033	6	.
463	2033	7	.
464	2033	8	.
465	2033	9	.
466	2033	10	.
467	2033	11	.
468	2033	12	.
469	2034	1	.
470	2034	2	.
471	2034	3	.
472	2034	4	.
473	2034	5	.
474	2034	6	.
475	2034	7	.
476	2034	8	.
477	2034	9	.
478	2034	10	.
479	2034	11	.
480	2034	12	.
481	2035	1	.
482	2035	2	.
483	2035	3	.
484	2035	4	.
485	2035	5	.
486	2035	6	.
487	2035	7	.
488	2035	8	.
489	2035	9	.
490	2035	10	.

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Obs	year	month	ei_imi
491	2035	11	.
492	2035	12	.
493	2036	1	.
494	2036	2	.
495	2036	3	.
496	2036	4	.
497	2036	5	.
498	2036	6	.
499	2036	7	.
500	2036	8	.
501	2036	9	.
502	2036	10	.
503	2036	11	.
504	2036	12	.
505	2037	1	.
506	2037	2	.
507	2037	3	.
508	2037	4	.
509	2037	5	.
510	2037	6	.
511	2037	7	.
512	2037	8	.
513	2037	9	.
514	2037	10	.
515	2037	11	.
516	2037	12	.
517	2038	1	.
518	2038	2	.
519	2038	3	.
520	2038	4	.
521	2038	5	.
522	2038	6	.
523	2038	7	.
524	2038	8	.
525	2038	9	.
526	2038	10	.
527	2038	11	.
528	2038	12	.
529	2039	1	.
530	2039	2	.
531	2039	3	.
532	2039	4	.
533	2039	5	.
534	2039	6	.
535	2039	7	.
536	2039	8	.
537	2039	9	.
538	2039	10	.
539	2039	11	.

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Obs	year	month	ei_imi
540	2039	12	.
541	2040	1	.
542	2040	2	.
543	2040	3	.
544	2040	4	.
545	2040	5	.
546	2040	6	.
547	2040	7	.
548	2040	8	.
549	2040	9	.
550	2040	10	.
551	2040	11	.
552	2040	12	.
553	2041	1	.
554	2041	2	.
555	2041	3	.
556	2041	4	.
557	2041	5	.
558	2041	6	.
559	2041	7	.
560	2041	8	.
561	2041	9	.
562	2041	10	.
563	2041	11	.
564	2041	12	.
565	2042	1	.
566	2042	2	.
567	2042	3	.
568	2042	4	.
569	2042	5	.
570	2042	6	.
571	2042	7	.
572	2042	8	.
573	2042	9	.
574	2042	10	.
575	2042	11	.
576	2042	12	.
577	2043	1	.
578	2043	2	.
579	2043	3	.
580	2043	4	.
581	2043	5	.
582	2043	6	.
583	2043	7	.
584	2043	8	.
585	2043	9	.
586	2043	10	.
587	2043	11	.
588	2043	12	.

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Obs	year	month	ei_imi
589	2044	1	.
590	2044	2	.
591	2044	3	.
592	2044	4	.
593	2044	5	.
594	2044	6	.
595	2044	7	.
596	2044	8	.
597	2044	9	.
598	2044	10	.
599	2044	11	.
600	2044	12	.
601	2045	1	.
602	2045	2	.
603	2045	3	.
604	2045	4	.
605	2045	5	.
606	2045	6	.
607	2045	7	.
608	2045	8	.
609	2045	9	.
610	2045	10	.
611	2045	11	.
612	2045	12	.
613	2046	1	.
614	2046	2	.
615	2046	3	.
616	2046	4	.
617	2046	5	.
618	2046	6	.
619	2046	7	.
620	2046	8	.
621	2046	9	.
622	2046	10	.
623	2046	11	.
624	2046	12	.
625	2047	1	.
626	2047	2	.
627	2047	3	.
628	2047	4	.
629	2047	5	.
630	2047	6	.
631	2047	7	.
632	2047	8	.
633	2047	9	.
634	2047	10	.
635	2047	11	.
636	2047	12	.
637	2048	1	.

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Obs	year	month	ei_imi
638	2048	2	.
639	2048	3	.
640	2048	4	.
641	2048	5	.
642	2048	6	.
643	2048	7	.
644	2048	8	.
645	2048	9	.
646	2048	10	.
647	2048	11	.
648	2048	12	.
649	2049	1	.
650	2049	2	.
651	2049	3	.
652	2049	4	.
653	2049	5	.
654	2049	6	.
655	2049	7	.
656	2049	8	.
657	2049	9	.
658	2049	10	.
659	2049	11	.
660	2049	12	.
661	2050	1	.
662	2050	2	.
663	2050	3	.
664	2050	4	.
665	2050	5	.
666	2050	6	.
667	2050	7	.
668	2050	8	.
669	2050	9	.
670	2050	10	.
671	2050	11	.
672	2050	12	.
673	2051	1	.
674	2051	2	.
675	2051	3	.
676	2051	4	.
677	2051	5	.
678	2051	6	.
679	2051	7	.
680	2051	8	.
681	2051	9	.
682	2051	10	.
683	2051	11	.
684	2051	12	.
685	2052	1	.
686	2052	2	.



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Obs	year	month	ei_imi
687	2052	3	.
688	2052	4	.
689	2052	5	.
690	2052	6	.
691	2052	7	.
692	2052	8	.
693	2052	9	.
694	2052	10	.
695	2052	11	.
696	2052	12	.
697	2053	1	.
698	2053	2	.
699	2053	3	.
700	2053	4	.
701	2053	5	.
702	2053	6	.
703	2053	7	.
704	2053	8	.
705	2053	9	.
706	2053	10	.
707	2053	11	.
708	2053	12	.
709	2054	1	.
710	2054	2	.
711	2054	3	.
712	2054	4	.
713	2054	5	.
714	2054	6	.
715	2054	7	.
716	2054	8	.
717	2054	9	.
718	2054	10	.
719	2054	11	.
720	2054	12	.
721	2055	1	.
722	2055	2	.
723	2055	3	.
724	2055	4	.
725	2055	5	.
726	2055	6	.
727	2055	7	.
728	2055	8	.
729	2055	9	.
730	2055	10	.
731	2055	11	.
732	2055	12	.
733	2056	1	.
734	2056	2	.
735	2056	3	.

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Obs	year	month	ei_imi
736	2056	4	.
737	2056	5	.
738	2056	6	.
739	2056	7	.
740	2056	8	.
741	2056	9	.
742	2056	10	.
743	2056	11	.
744	2056	12	.
745	2057	1	.
746	2057	2	.
747	2057	3	.
748	2057	4	.
749	2057	5	.
750	2057	6	.
751	2057	7	.
752	2057	8	.
753	2057	9	.
754	2057	10	.
755	2057	11	.
756	2057	12	.

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The MEANS Procedure

Variable	Label	Mean
year	year	2026.00
month	month	6.5000000
grpmf_imi	SERVICE AREA GROSS REGIONAL PRODUCT-MANUF.	31504.87
frbmvp	FRB IND. PROD. INDEX, MOTOR VEHICLES	141.6644733
D030N	BINARY VARIABLE-2003 ON	0.8730159
d1	JANUARY	0.0833333
d2	FEBRUARY	0.0833333
d3	MARCH	0.0833333
d4	APRIL	0.0833333
d5	MAY	0.0833333
d6	JUNE	0.0833333
d7	JULY	0.0833333
d8	AUGUST	0.0833333
d9	SEPTEMBER	0.0833333
d10	OCTOBER	0.0833333
d11	NOVEMBER	0.0833333
d95	BINARY VARIABLE-1995	0.0158730
dsep12on	BINARY VARIABLE-SEPTEMBER 2012 ON	0.7195767
mar01oct01	BINARY VARIABLE-MARCH 2001 THROUGH OCTOBER 2001	0.0105820
jan20on	BINARY VARIABLE-JANUARY 2020 ON	0.6031746



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0	y	m	g	f	D	d	d	d	d	d	d	d	d	d	d	d	d	m	P
41	1998	5	19032.11	91.108	0	0	0	0	0	1	0	0	0	0	0	0	0	0	CONFID.
42	1998	6	19111.54	89.190	0	0	0	0	0	0	1	0	0	0	0	0	0	0	CONFID.
43	1998	7	19164.84	87.836	0	0	0	0	0	0	0	1	0	0	0	0	0	0	CONFID.
44	1998	8	19192.76	88.737	0	0	0	0	0	0	0	0	1	0	0	0	0	0	CONFID.
45	1998	9	19199.21	92.674	0	0	0	0	0	0	0	0	0	1	0	0	0	0	CONFID.
46	1998	10	19189.92	97.908	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
47	1998	11	19170.24	101.898	0	0	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
48	1998	12	19145.33	102.945	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
49	1999	1	19120.04	102.013	0	1	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
50	1999	2	19100.90	100.978	0	0	1	0	0	0	0	0	0	0	0	0	0	0	CONFID.
51	1999	3	19091.60	101.039	0	0	0	1	0	0	0	0	0	0	0	0	0	0	CONFID.
52	1999	4	19097.04	101.957	0	0	0	0	1	0	0	0	0	0	0	0	0	0	CONFID.
53	1999	5	19123.20	102.968	0	0	0	0	0	1	0	0	0	0	0	0	0	0	CONFID.
54	1999	6	19175.04	103.519	0	0	0	0	0	0	1	0	0	0	0	0	0	0	CONFID.
55	1999	7	19257.63	103.798	0	0	0	0	0	0	0	1	0	0	0	0	0	0	CONFID.
56	1999	8	19371.88	104.258	0	0	0	0	0	0	0	0	1	0	0	0	0	0	CONFID.
57	1999	9	19507.02	105.149	0	0	0	0	0	0	0	0	0	1	0	0	0	0	CONFID.
58	1999	10	19657.11	106.203	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
59	1999	11	19814.35	106.979	0	0	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
60	1999	12	19971.11	107.204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
61	2000	1	20122.06	107.143	0	1	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
62	2000	2	20252.65	107.223	0	0	1	0	0	0	0	0	0	0	0	0	0	0	CONFID.
63	2000	3	20360.26	107.658	0	0	0	1	0	0	0	0	0	0	0	0	0	0	CONFID.
64	2000	4	20439.06	108.028	0	0	0	0	1	0	0	0	0	0	0	0	0	0	CONFID.
65	2000	5	20478.93	107.673	0	0	0	0	0	1	0	0	0	0	0	0	0	0	CONFID.
66	2000	6	20472.67	106.219	0	0	0	0	0	0	1	0	0	0	0	0	0	0	CONFID.
67	2000	7	20412.71	104.087	0	0	0	0	0	0	0	1	0	0	0	0	0	0	CONFID.
68	2000	8	20298.00	101.949	0	0	0	0	0	0	0	0	1	0	0	0	0	0	CONFID.
69	2000	9	20141.16	100.309	0	0	0	0	0	0	0	0	0	1	0	0	0	0	CONFID.
70	2000	10	19950.18	98.772	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
71	2000	11	19735.04	96.731	0	0	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
72	2000	12	19505.22	93.968	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
73	2001	1	19266.69	91.438	0	1	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
74	2001	2	19044.15	90.574	0	0	1	0	0	0	0	0	0	0	0	0	0	0	CONFID.
75	2001	3	18835.19	91.966	0	0	0	1	0	0	0	0	0	0	0	0	0	1	CONFID.
76	2001	4	18642.31	94.602	0	0	0	0	1	0	0	0	0	0	0	0	0	1	CONFID.
77	2001	5	18482.92	96.718	0	0	0	0	0	1	0	0	0	0	0	0	0	1	CONFID.
78	2001	6	18366.31	97.095	0	0	0	0	0	0	1	0	0	0	0	0	0	1	CONFID.
79	2001	7	18302.10	96.176	0	0	0	0	0	0	0	1	0	0	0	0	0	1	CONFID.
80	2001	8	18292.14	94.970	0	0	0	0	0	0	0	0	1	0	0	0	0	1	CONFID.









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O b s	y e a r	m o n t h	g r o u p m i n i	f r o m v a r i a b l e	D 0 3 0 N	d 1	d 2	d 3	d 4	d 5	d 6	d 7	d 8	d 9	d 0	d 1	d 5	m a r c h 2 0 1 5	j u n e 2 0 1 5	P R I C E		
201	2011	9	21889.99	92.817	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	CONFID.	
202	2011	10	21814.38	93.811	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	CONFID.
203	2011	11	21757.68	94.910	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	CONFID.
204	2011	12	21718.80	96.571	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
205	2012	1	21696.10	98.505	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
206	2012	2	21688.99	100.062	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
207	2012	3	21695.49	100.880	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
208	2012	4	21714.55	100.955	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	CONFID.
209	2012	5	21745.08	100.381	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	CONFID.
210	2012	6	21785.67	99.382	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	CONFID.
211	2012	7	21835.19	98.453	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	CONDID.
212	2012	8	21893.63	98.185	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	CONFID.
213	2012	9	21958.44	98.927	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	CONFID.
214	2012	10	22029.98	100.273	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	CONFID.
215	2012	11	22107.55	101.586	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	CONFID.
216	2012	12	22190.62	102.440	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
217	2013	1	22280.01	103.052	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
218	2013	2	22369.13	103.783	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
219	2013	3	22461.73	104.876	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
220	2013	4	22560.44	106.039	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
221	2013	5	22661.63	106.703	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	CONFID.
222	2013	6	22764.68	106.614	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	CONFID.
223	2013	7	22868.98	106.358	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	CONDID.
224	2013	8	22975.60	106.822	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	CONFID.
225	2013	9	23080.43	108.454	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	CONFID.
226	2013	10	23184.50	110.515	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	CONFID.
227	2013	11	23287.13	111.886	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	CONFID.
228	2013	12	23387.64	111.889	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
229	2014	1	23486.93	111.248	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
230	2014	2	23578.10	111.140	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
231	2014	3	23665.34	112.288	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
232	2014	4	23750.84	114.402	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
233	2014	5	23830.82	116.724	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	CONFID.
234	2014	6	23904.67	118.635	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	CONFID.
235	2014	7	23971.68	119.938	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	CONDID.
236	2014	8	24032.75	120.594	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	CONFID.
237	2014	9	24086.42	120.603	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	CONFID.
238	2014	10	24134.25	120.199	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	CONFID.
239	2014	11	24176.88	119.671	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	CONFID.
240	2014	12	24214.81	119.269	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.

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			g	f	D																
		m	r	r	0																
	y	o	p	b	3															P	
0	e	n	m	m	0	d	d	d	d	d	d	d	d	d	1	1	9	2	1	2	
b	a	t	i	v	N	1	2	3	4	5	6	7	8	9	0	1	5	n	0	0	
s	r	h	i	p																E	
241	2015	1	24249.19	119.131	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
242	2015	2	24278.54	119.347	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
243	2015	3	24305.07	120.004	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
244	2015	4	24330.16	121.214	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	CONFID.
245	2015	5	24353.40	123.048	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	CONFID.
246	2015	6	24375.37	125.353	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	CONFID.
247	2015	7	24396.62	127.298	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	CONDID.
248	2015	8	24418.13	127.830	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	CONFID.
249	2015	9	24439.84	126.405	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	CONFID.
250	2015	10	24462.74	124.083	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	CONFID.
251	2015	11	24487.45	122.398	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	CONFID.
252	2015	12	24514.64	122.347	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
253	2016	1	24545.45	123.241	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
254	2016	2	24578.93	123.808	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
255	2016	3	24616.69	123.321	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
256	2016	4	24660.03	122.432	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	CONFID.
257	2016	5	24709.03	122.291	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	CONFID.
258	2016	6	24764.30	123.585	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	CONFID.
259	2016	7	24826.48	125.625	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	CONDID.
260	2016	8	24896.74	127.264	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	CONFID.
261	2016	9	24972.27	127.637	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	CONFID.
262	2016	10	25053.56	127.013	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	CONFID.
263	2016	11	25139.94	125.981	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	CONFID.
264	2016	12	25230.86	125.052	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
265	2017	1	25327.25	124.527	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
266	2017	2	25422.11	124.634	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
267	2017	3	25519.52	125.371	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
268	2017	4	25622.26	126.186	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	CONFID.
269	2017	5	25726.48	126.244	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	CONFID.
270	2017	6	25831.56	125.100	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	CONFID.
271	2017	7	25936.90	123.411	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	CONDID.
272	2017	8	26043.69	122.199	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	CONFID.
273	2017	9	26148.02	122.259	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	CONFID.
274	2017	10	26251.20	123.484	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	CONFID.
275	2017	11	26352.80	125.505	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	CONFID.
276	2017	12	26452.35	127.869	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
277	2018	1	26551.02	129.847	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
278	2018	2	26642.16	130.544	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
279	2018	3	26730.14	129.657	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	CONFID.
280	2018	4	26817.46	127.950	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	CONFID.

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			g	f	D													m			
		m	r	r	0													a			
	y	o	p	b	0													s	j		
0	e	n	m	m	3													e	a		
b	a	t	i	v	0	d	d	d	d	d	d	d	d	d	1	1	9	o	o		
s	r	h	i	p	N	1	2	3	4	5	6	7	8	9	0	1	5	n	n		
281	2018	5	26900.56	126.702	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	CONFID.	
282	2018	6	26979.08	126.821	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	CONFID.
283	2018	7	27052.47	128.112	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	CONDID.
284	2018	8	27120.81	130.013	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	CONFID.
285	2018	9	27180.26	131.864	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	CONFID.
286	2018	10	27230.23	133.072	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	CONFID.
287	2018	11	27269.15	133.029	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	CONFID.
288	2018	12	27295.22	131.439	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
289	2019	1	27306.93	129.009	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
290	2019	2	27302.75	126.940	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
291	2019	3	27281.65	125.922	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
292	2019	4	27240.95	126.120	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	CONFID.
293	2019	5	27179.06	127.572	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	CONFID.
294	2019	6	27094.56	129.830	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	CONFID.
295	2019	7	26985.76	131.267	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	CONDID.
296	2019	8	26852.34	129.834	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	CONFID.
297	2019	9	26703.94	125.005	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	CONFID.
298	2019	10	26544.11	120.479	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	CONFID.
299	2019	11	26378.58	121.227	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	CONFID.
300	2019	12	26212.97	128.770	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	CONFID.
301	2020	1	26050.37	133.760	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
302	2020	2	25903.96	123.656	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
303	2020	3	25774.02	93.308	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
304	2020	4	25663.96	58.814	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
305	2020	5	25582.08	44.949	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
306	2020	6	25533.68	65.855	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
307	2020	7	25524.39	105.636	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
308	2020	8	25555.33	138.336	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
309	2020	9	25621.27	145.194	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
310	2020	10	25717.94	134.769	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
311	2020	11	25840.35	123.313	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
312	2020	12	25984.05	122.416	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
313	2021	1	26146.93	129.460	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
314	2021	2	26313.20	136.690	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
315	2021	3	26486.29	139.382	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
316	2021	4	26667.77	138.416	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
317	2021	5	26847.19	136.522	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
318	2021	6	27019.92	135.902	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
319	2021	7	27181.37	136.356	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
320	2021	8	27331.95	136.874	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.

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			g	f	D													m			
			r	r	0													a			
			p	b	3													s	j		
			m	m	0													e	o		
			f	v	0													p	1		
			i	p	N													1	2		
																		o	0		
																		n	o		
																		1	n		
321	2021	9	27467.54	136.750	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
322	2021	10	27591.54	136.289	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
323	2021	11	27705.09	136.094	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
324	2021	12	27809.05	136.575	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
325	2022	1	27906.00	137.533	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
326	2022	2	27991.06	138.493	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
327	2022	3	28069.87	139.206	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
328	2022	4	28145.90	139.683	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
329	2022	5	28217.27	139.989	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
330	2022	6	28285.02	140.204	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
331	2022	7	28350.07	140.358	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
332	2022	8	28414.00	140.466	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
333	2022	9	28474.83	140.528	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
334	2022	10	28533.63	140.517	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
335	2022	11	28590.47	140.400	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
336	2022	12	28645.37	140.160	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
337	2023	1	28699.24	139.848	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
338	2023	2	28748.74	139.556	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
339	2023	3	28796.52	139.319	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
340	2023	4	28844.21	139.114	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
341	2023	5	28890.15	138.909	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
342	2023	6	28934.42	138.672	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
343	2023	7	28977.03	138.399	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
344	2023	8	29018.74	138.091	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
345	2023	9	29058.28	137.767	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
346	2023	10	29096.43	137.447	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
347	2023	11	29133.29	137.157	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
348	2023	12	29168.96	136.909	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
349	2024	1	29204.09	136.665	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
350	2024	2	29237.11	136.386	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
351	2024	3	29269.23	136.030	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
352	2024	4	29301.11	135.591	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
353	2024	5	29332.25	135.092	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
354	2024	6	29362.78	134.556	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
355	2024	7	29392.78	134.024	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
356	2024	8	29422.75	133.539	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
357	2024	9	29451.65	133.158	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
358	2024	10	29479.92	132.892	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
359	2024	11	29507.48	132.752	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
360	2024	12	29534.27	132.739	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.

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			g	f	D																	
		m	r	r	0																	
	y	o	p	b	3															P		
0	e	n	m	m	0	d	d	d	d	d	d	d	d	d	1	1	9	o	1	2		
b	a	t	i	v	0	1	2	3	4	5	6	7	8	9	0	1	5	n	1	0		
s	r	h	i	p	N	1	2	3	4	5	6	7	8	9	0	1	5	n	1	n		
361	2025	1	29560.63	132.830	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
362	2025	2	29584.86	132.978	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
363	2025	3	29608.17	133.160	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
364	2025	4	29631.26	133.376	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
365	2025	5	29653.25	133.621	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
366	2025	6	29674.07	133.888	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
367	2025	7	29693.66	134.147	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONDID.
368	2025	8	29712.45	134.369	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.
369	2025	9	29730.11	134.513	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
370	2025	10	29747.27	134.561	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
371	2025	11	29764.24	134.496	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
372	2025	12	29781.33	134.309	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
373	2026	1	29799.14	134.029	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
374	2026	2	29816.80	133.719	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
375	2026	3	29835.46	133.406	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
376	2026	4	29856.06	133.114	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
377	2026	5	29878.33	132.888	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
378	2026	6	29902.55	132.749	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
379	2026	7	29929.06	132.685	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONDID.
380	2026	8	29958.43	132.668	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.
381	2026	9	29989.64	132.678	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
382	2026	10	30023.04	132.710	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
383	2026	11	30058.51	132.763	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
384	2026	12	30095.97	132.838	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
385	2027	1	30135.95	132.944	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
386	2027	2	30175.68	133.080	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
387	2027	3	30216.98	133.258	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
388	2027	4	30261.20	133.483	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
389	2027	5	30306.88	133.747	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
390	2027	6	30353.90	134.043	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
391	2027	7	30402.16	134.356	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONDID.
392	2027	8	30452.35	134.672	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.
393	2027	9	30502.70	134.967	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
394	2027	10	30553.87	135.242	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
395	2027	11	30605.71	135.499	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
396	2027	12	30658.07	135.742	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
397	2028	1	30711.68	135.991	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
398	2028	2	30763.78	136.250	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
399	2028	3	30815.95	136.542	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
400	2028	4	30868.93	136.869	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.

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O b s	y e a r	m o n t h	g r o u p _ m i n i	f r o m v a r i a b l e	D O 3 0 N	d 1	d 2	d 3	d 4	d 5	d 6	d 7	d 8	d 9	d 0	d 1	d 5	m a r c h 2 0 2 0	j u n e 2 0 2 0	P R I C E	
401	2028	5	30921.70	137.215	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
402	2028	6	30974.10	137.571	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
403	2028	7	31026.01	137.921	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
404	2028	8	31078.20	138.251	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
405	2028	9	31129.06	138.538	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
406	2028	10	31179.51	138.784	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
407	2028	11	31229.60	138.995	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
408	2028	12	31279.40	139.172	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
409	2029	1	31329.80	139.325	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
410	2029	2	31377.61	139.453	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
411	2029	3	31425.34	139.570	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
412	2029	4	31474.66	139.697	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
413	2029	5	31524.03	139.850	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
414	2029	6	31573.51	140.039	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
415	2029	7	31623.17	140.243	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
416	2029	8	31673.86	140.439	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
417	2029	9	31723.97	140.600	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
418	2029	10	31774.32	140.740	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
419	2029	11	31824.94	140.876	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
420	2029	12	31875.82	141.024	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
421	2030	1	31927.84	141.191	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
422	2030	2	31977.62	141.365	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
423	2030	3	32027.70	141.556	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
424	2030	4	32079.79	141.772	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
425	2030	5	32132.22	142.007	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
426	2030	6	32185.00	142.264	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
427	2030	7	32238.15	142.542	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
428	2030	8	32292.51	142.847	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
429	2030	9	32346.27	143.164	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
430	2030	10	32400.26	143.480	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
431	2030	11	32454.40	143.774	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
432	2030	12	32508.63	144.030	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
433	2031	1	32563.78	144.252	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
434	2031	2	32616.23	144.438	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
435	2031	3	32668.60	144.608	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
436	2031	4	32722.59	144.795	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
437	2031	5	32776.36	145.023	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
438	2031	6	32829.85	145.308	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
439	2031	7	32883.01	145.637	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
440	2031	8	32936.69	145.985	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.

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O b s	y e a r	m o n t h	g r o u p _ i d e n t i f i c a t i o n	f r o m _ v a r i a b l e	D O I N	1	2	3	4	5	6	7	8	9	0	1	5	m a r c h	j u n e	P R I C E			
																					1	2	3
441	2031	9	32989.21	146.318	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.	
442	2031	10	33041.51	146.631	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.	
443	2031	11	33093.64	146.915	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.	
444	2031	12	33145.66	147.167	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
445	2032	1	33198.48	147.389	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
446	2032	2	33249.60	147.571	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
447	2032	3	33300.80	147.729	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
448	2032	4	33352.96	147.894	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
449	2032	5	33405.33	148.101	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
450	2032	6	33457.93	148.377	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.	
451	2032	7	33510.83	148.717	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONDID.	
452	2032	8	33564.94	149.113	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.	
453	2032	9	33618.53	149.532	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.	
454	2032	10	33672.46	149.951	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.	
455	2032	11	33726.74	150.339	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	CONFID.
456	2032	12	33781.38	150.674	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
457	2033	1	33837.29	150.974	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
458	2033	2	33890.84	151.245	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
459	2033	3	33944.74	151.523	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
460	2033	4	34000.83	151.831	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
461	2033	5	34057.30	152.172	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
462	2033	6	34114.15	152.551	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.	
463	2033	7	34171.40	152.954	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONDID.	
464	2033	8	34229.96	153.366	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.	
465	2033	9	34287.91	153.754	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.	
466	2033	10	34346.15	154.118	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.	
467	2033	11	34404.63	154.455	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	CONFID.
468	2033	12	34463.33	154.763	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
469	2034	1	34523.16	155.050	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
470	2034	2	34580.21	155.305	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
471	2034	3	34637.35	155.552	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
472	2034	4	34696.47	155.820	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
473	2034	5	34755.59	156.129	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
474	2034	6	34814.68	156.492	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.	
475	2034	7	34873.69	156.884	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONDID.	
476	2034	8	34933.57	157.273	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.	
477	2034	9	34992.41	157.613	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.	
478	2034	10	35051.16	157.896	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.	
479	2034	11	35109.85	158.115	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	CONFID.
480	2034	12	35168.47	158.268	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	

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0	y	m	g	f	D	d	d	d	d	d	d	d	d	d	d	d	d	m	j	P	
																					0
s	r	h	i	p	N	1	2	3	4	5	6	7	8	9	0	1	5	n	1	n	E
481	2035	1	35228.01	158.382	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
482	2035	2	35284.61	158.481	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
483	2035	3	35341.19	158.597	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
484	2035	4	35399.65	158.743	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
485	2035	5	35458.10	158.925	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
486	2035	6	35516.53	159.142	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
487	2035	7	35574.96	159.377	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
488	2035	8	35634.32	159.609	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
489	2035	9	35692.65	159.813	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
490	2035	10	35750.87	159.983	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.	
491	2035	11	35808.93	160.118	1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.	
492	2035	12	35866.79	160.217	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
493	2036	1	35925.33	160.300	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
494	2036	2	35981.69	160.387	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
495	2036	3	36037.71	160.497	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
496	2036	4	36094.27	160.636	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.	
497	2036	5	36150.40	160.803	1	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.	
498	2036	6	36206.04	160.993	1	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.	
499	2036	7	36261.15	161.198	1	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONDID.	
500	2036	8	36316.63	161.410	1	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.	
501	2036	9	36370.75	161.614	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.	
502	2036	10	36424.47	161.808	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.	
503	2036	11	36477.84	161.986	1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.	
504	2036	12	36530.93	162.145	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
505	2037	1	36584.67	162.279	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
506	2037	2	36635.65	162.371	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
507	2037	3	36686.55	162.431	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
508	2037	4	36739.14	162.487	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.	
509	2037	5	36791.75	162.579	1	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.	
510	2037	6	36844.44	162.731	1	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.	
511	2037	7	36897.28	162.931	1	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONDID.	
512	2037	8	36951.16	163.153	1	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.	
513	2037	9	37004.34	163.368	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.	
514	2037	10	37057.66	163.573	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.	
515	2037	11	37111.12	163.769	1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.	
516	2037	12	37164.71	163.956	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
517	2038	1	37219.29	164.142	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
518	2038	2	37271.31	164.319	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
519	2038	3	37323.43	164.502	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.	
520	2038	4	37377.37	164.703	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.	



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O b s	y e a r	m o n t h	g r o u p m f i	f r o m v a r i a b l e	D 0 3 0 N	d 1	d 2	d 3	d 4	d 5	d 6	d 7	d 8	d 9	d 0	d 1	d 5	m a r c h 2 0 2 0	j u n e 2 0 2 0	P R I C E	
521	2038	5	37431.37	164.923	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
522	2038	6	37485.43	165.164	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
523	2038	7	37539.52	165.415	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
524	2038	8	37594.55	165.665	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
525	2038	9	37648.76	165.893	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
526	2038	10	37703.09	166.104	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
527	2038	11	37757.55	166.300	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
528	2038	12	37812.20	166.488	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
529	2039	1	37867.96	166.682	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
530	2039	2	37921.25	166.886	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
531	2039	3	37974.80	167.117	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
532	2039	4	38030.48	167.383	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
533	2039	5	38086.50	167.669	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
534	2039	6	38142.89	167.966	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
535	2039	7	38199.69	168.262	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
536	2039	8	38257.81	168.548	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
537	2039	9	38315.30	168.803	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
538	2039	10	38373.01	169.029	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
539	2039	11	38430.84	169.224	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
540	2039	12	38488.70	169.387	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
541	2040	1	38547.48	169.533	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
542	2040	2	38604.22	169.664	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
543	2040	3	38660.75	169.800	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
544	2040	4	38717.92	169.953	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
545	2040	5	38774.69	170.133	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
546	2040	6	38830.99	170.344	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
547	2040	7	38886.72	170.568	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
548	2040	8	38942.78	170.782	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
549	2040	9	38997.41	170.960	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
550	2040	10	39051.56	171.107	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
551	2040	11	39105.31	171.233	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
552	2040	12	39158.70	171.343	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
553	2041	1	39212.66	171.445	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
554	2041	2	39263.78	171.535	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
555	2041	3	39314.73	171.623	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
556	2041	4	39367.28	171.721	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
557	2041	5	39419.76	171.840	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
558	2041	6	39472.22	171.985	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
559	2041	7	39524.73	172.151	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
560	2041	8	39578.15	172.327	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.

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																					0
s	r	h	r	r	0	1	2	3	4	5	6	7	8	9	0	1	5	a	a	R	
			p	p	N	1	2	3	4	5	6	7	8	9	0	1	5	s	o	I	
			m	v	3	0	1	2	3	4	5	6	7	8	9	0	1	5	e	o	C
			i	p	N	1	2	3	4	5	6	7	8	9	0	1	5	n	1	n	E
561	2041	9	39630.76	172.501	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
562	2041	10	39683.39	172.691	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
563	2041	11	39736.03	172.920	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
564	2041	12	39788.64	173.196	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
565	2042	1	39842.07	173.492	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
566	2042	2	39892.86	173.746	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
567	2042	3	39943.57	173.943	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
568	2042	4	39995.90	174.092	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
569	2042	5	40048.11	174.204	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
570	2042	6	40100.17	174.298	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
571	2042	7	40152.07	174.404	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
572	2042	8	40204.68	174.554	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
573	2042	9	40256.37	174.761	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
574	2042	10	40308.07	174.999	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
575	2042	11	40359.84	175.230	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
576	2042	12	40411.77	175.424	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
577	2043	1	40464.78	175.594	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
578	2043	2	40515.51	175.750	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
579	2043	3	40566.59	175.916	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
580	2043	4	40619.83	176.108	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
581	2043	5	40673.59	176.328	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
582	2043	6	40727.93	176.574	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
583	2043	7	40782.94	176.822	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
584	2043	8	40839.53	177.044	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
585	2043	9	40895.83	177.212	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
586	2043	10	40952.71	177.350	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
587	2043	11	41010.08	177.489	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
588	2043	12	41067.92	177.651	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
589	2044	1	41127.12	177.835	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
590	2044	2	41184.74	178.019	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
591	2044	3	41242.65	178.199	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
592	2044	4	41301.76	178.370	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
593	2044	5	41361.04	178.528	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
594	2044	6	41420.46	178.672	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
595	2044	7	41479.95	178.822	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
596	2044	8	41540.47	179.002	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
597	2044	9	41600.07	179.220	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
598	2044	10	41659.76	179.466	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
599	2044	11	41719.53	179.719	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
600	2044	12	41779.40	179.962	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.

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Year	Month	Day	g r p m f _ i m i	f r b m v p	D O 3 0 N	d 1	d 2	d 3	d 4	d 5	d 6	d 7	d 8	d 9	d 0	d 1	d 5	m a r s e p t o b e r j a n u a r y	P R I C E		
601	2045	1	41840.37	180.199	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
602	2045	2	41898.53	180.421	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
603	2045	3	41956.80	180.645	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
604	2045	4	42017.21	180.885	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
605	2045	5	42077.79	181.138	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
606	2045	6	42138.55	181.407	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
607	2045	7	42199.50	181.689	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
608	2045	8	42261.63	181.983	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
609	2045	9	42322.89	182.274	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
610	2045	10	42384.23	182.573	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
611	2045	11	42445.60	182.888	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
612	2045	12	42506.97	183.222	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
613	2046	1	42569.27	183.560	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
614	2046	2	42628.45	183.858	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
615	2046	3	42687.49	184.118	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
616	2046	4	42748.32	184.362	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
617	2046	5	42808.91	184.607	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
618	2046	6	42869.19	184.869	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
619	2046	7	42929.13	185.145	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
620	2046	8	42989.67	185.426	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
621	2046	9	43048.85	185.695	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
622	2046	10	43107.64	185.956	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
623	2046	11	43166.05	186.216	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
624	2046	12	43224.07	186.478	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
625	2047	1	43282.63	186.745	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
626	2047	2	43337.98	187.000	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
627	2047	3	43392.95	187.252	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
628	2047	4	43449.39	187.511	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
629	2047	5	43505.42	187.767	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
630	2047	6	43561.04	188.020	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
631	2047	7	43616.24	188.270	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
632	2047	8	43671.94	188.524	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
633	2047	9	43726.38	188.774	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
634	2047	10	43780.50	189.025	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
635	2047	11	43834.32	189.277	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
636	2047	12	43887.90	189.529	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
637	2048	1	43942.14	189.787	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
638	2048	2	43994.45	190.037	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
639	2048	3	44046.63	190.288	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
640	2048	4	44099.58	190.543	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.

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			g	f	D																
		m	r	r	0																
	y	o	p	b	3																P
0	e	n	m	m	0	d	d	d	d	d	d	d	d	d	1	1	9	o	o	o	R
b	a	t	i	v	0	1	2	3	4	5	6	7	8	9	0	1	5	n	1	n	I
s	r	h	i	p	N	1	2	3	4	5	6	7	8	9	0	1	5	n	1	n	C
																					E
641	2048	5	44152.47	190.798	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
642	2048	6	44205.34	191.052	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
643	2048	7	44258.21	191.304	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
644	2048	8	44311.99	191.559	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
645	2048	9	44364.94	191.807	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
646	2048	10	44417.95	192.055	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
647	2048	11	44471.02	192.303	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
648	2048	12	44524.17	192.553	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
649	2049	1	44578.27	192.808	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
650	2049	2	44629.84	193.050	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
651	2049	3	44681.50	193.291	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
652	2049	4	44735.02	193.540	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
653	2049	5	44788.65	193.791	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
654	2049	6	44842.41	194.044	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
655	2049	7	44896.32	194.295	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
656	2049	8	44951.25	194.541	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
657	2049	9	45005.45	194.771	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
658	2049	10	45059.81	194.987	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
659	2049	11	45114.35	195.188	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
660	2049	12	45169.07	195.376	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
661	2050	1	45224.88	195.561	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
662	2050	2	45278.18	195.743	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
663	2050	3	45331.68	195.935	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
664	2050	4	45387.21	196.144	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
665	2050	5	45442.96	196.357	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
666	2050	6	45498.95	196.572	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
667	2050	7	45555.18	196.788	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
668	2050	8	45612.60	197.014	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
669	2050	9	45669.36	197.243	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
670	2050	10	45726.39	197.482	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
671	2050	11	45783.70	197.733	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
672	2050	12	45841.30	198.000	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
673	2051	1	45881.71	198.355	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
674	2051	2	45936.79	198.473	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
675	2051	3	45992.17	198.616	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
676	2051	4	46049.75	198.783	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
677	2051	5	46107.68	198.957	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
678	2051	6	46165.95	199.132	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
679	2051	7	46224.57	199.314	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
680	2051	8	46284.54	199.518	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.

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O b s	y e a r	m o n t h	g r p m f _ i m p	f r o m v p	D O 3 0 N	d 1	d 2	d 3	d 4	d 5	d 6	d 7	d 8	d 9	d 10	d 11	d 12	m a r c h	a p r i l	m a y	j u n e	j u l y	a u g u s t	s e p t e m b e r	o c t o b e r	n o v e m b e r	P R I C E
681	2051	9	46343.92	199.746	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.					
682	2051	10	46403.68	200.009	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.					
683	2051	11	46463.83	200.312	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.					
684	2051	12	46524.40	200.660	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
685	2052	1	46548.93	201.188	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
686	2052	2	46605.83	201.242	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
687	2052	3	46663.13	201.333	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
688	2052	4	46722.82	201.457	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
689	2052	5	46782.97	201.592	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
690	2052	6	46843.58	201.726	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.					
691	2052	7	46904.65	201.873	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONDID.					
692	2052	8	46967.23	202.054	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.					
693	2052	9	47029.31	202.280	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.					
694	2052	10	47091.86	202.568	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.					
695	2052	11	47154.93	202.924	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.					
696	2052	12	47218.53	203.355	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
697	2053	1	47226.70	204.061	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
698	2053	2	47285.46	204.050	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
699	2053	3	47344.74	204.088	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
700	2053	4	47406.58	204.167	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
701	2053	5	47469.01	204.261	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
702	2053	6	47532.02	204.354	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.					
703	2053	7	47595.61	204.464	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONDID.					
704	2053	8	47660.87	204.622	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.					
705	2053	9	47725.70	204.847	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.					
706	2053	10	47791.12	205.160	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.					
707	2053	11	47857.18	205.570	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.					
708	2053	12	47923.90	206.087	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
709	2054	1	47915.20	206.976	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
710	2054	2	47975.87	206.896	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
711	2054	3	48037.17	206.880	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
712	2054	4	48101.22	206.914	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
713	2054	5	48165.99	206.965	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.					
714	2054	6	48231.46	207.016	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.					
715	2054	7	48297.61	207.088	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONDID.					
716	2054	8	48365.62	207.223	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONFID.					
717	2054	9	48433.28	207.447	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.					
718	2054	10	48501.64	207.785	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.					
719	2054	11	48570.77	208.251	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.					
720	2054	12	48640.69	208.855	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.					

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		m	r	r	0																
	y	o	p	b	3															P	
0	e	n	m	m	0	d	d	d	d	d	d	d	d	d	1	1	9	o	1	2	
b	a	t	i	v	0	1	2	3	4	5	6	7	8	9	0	1	5	n	1	0	
s	r	h	i	p	N	1	2	3	4	5	6	7	8	9	0	1	5	n	1	n	
721	2055	1	48614.60	209.932	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
722	2055	2	48677.23	209.783	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
723	2055	3	48740.60	209.711	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
724	2055	4	48806.92	209.697	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
725	2055	5	48874.08	209.706	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
726	2055	6	48942.06	209.713	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
727	2055	7	49010.85	209.747	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
728	2055	8	49081.67	209.856	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
729	2055	9	49152.23	210.080	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
730	2055	10	49223.62	210.444	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.	
731	2055	11	49295.89	210.967	1	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.	
732	2055	12	49369.09	211.661	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
733	2056	1	49325.09	212.930	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
734	2056	2	49389.72	212.709	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
735	2056	3	49455.21	212.580	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
736	2056	4	49523.85	212.518	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
737	2056	5	49593.46	212.483	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
738	2056	6	49664.02	212.444	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
739	2056	7	49735.52	212.439	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
740	2056	8	49809.22	212.524	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
741	2056	9	49882.75	212.746	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
742	2056	10	49957.23	213.136	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
743	2056	11	50032.73	213.718	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
744	2056	12	50109.29	214.504	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
745	2057	1	50046.85	215.972	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
746	2057	2	50113.53	215.677	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
747	2057	3	50181.19	215.488	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.
748	2057	4	50252.20	215.377	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	CONFID.
749	2057	5	50324.32	215.296	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	CONFID.
750	2057	6	50397.53	215.212	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	CONFID.
751	2057	7	50471.79	215.166	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	CONDID.
752	2057	8	50548.46	215.225	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	CONFID.
753	2057	9	50625.03	215.445	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	CONFID.
754	2057	10	50702.68	215.864	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	CONFID.
755	2057	11	50781.49	216.505	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	CONFID.
756	2057	12	50861.50	217.385	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	CONFID.

The SYSLIN Procedure  
Ordinary Least Squares Estimation

Model   ei\_imi  
Dependent Variable                               ei\_imi  
Label   BILLED KWH

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	19	357105.6	18795.03	54.10	<.0001
Error	293	101790.3	347.4073		
Corrected Total	312	458895.9			

Root MSE	18.63886	R-Square	0.77818
Dependent Mean	562.86587	Adj R-Sq	0.76380
Coeff Var	3.31142		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variable Label
Intercept	1	-357.108	176.6441	-2.02	0.0441	Intercept
lpi36	1	-86.6097	25.18514	-3.44	0.0007	REAL MANUF. ELEC PRICE, 36-MONTH AVE., LOG
lgrpmf	1	77.19525	19.01302	4.06	<.0001	SERVICE AREA GROSS REGIONAL PRODUCT-MANUF., LOG
Lfrbmvp	1	112.9713	10.32342	10.94	<.0001	FRB IND. PROD. INDX, MOTOR VEHICLES, LOG
d1	1	-8.74124	5.131237	-1.70	0.0895	JANUARY
d2	1	-20.0848	5.173341	-3.88	0.0001	FEBRUARY
d3	1	3.007066	5.183982	0.58	0.5623	MARCH
d4	1	-7.30151	5.193382	-1.41	0.1608	APRIL
d5	1	8.861348	5.200361	1.70	0.0894	MAY
d6	1	11.44459	5.187183	2.21	0.0281	JUNE
d7	1	12.22829	5.180760	2.36	0.0189	JULY
d8	1	25.96431	5.182118	5.01	<.0001	AUGUST
d9	1	16.43202	5.177711	3.17	0.0017	SEPTEMBER
d10	1	-3.30786	5.177657	-0.64	0.5234	OCTOBER
d11	1	-17.6005	5.169597	-3.40	0.0008	NOVEMBER
mar01oct01	1	32.60870	7.095049	4.60	<.0001	BINARY VARIABLE-MARCH 2001 THROUGH OCTOBER 2001

INDIANA MICHIGAN POWER COMPANY  
INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
MODEL ESTIMATION

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The SYSLIN Procedure  
Ordinary Least Squares Estimation

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variable Label
D030N	1	-24.3196	5.161607	-4.71	<.0001	BINARY VARIABLE-2003 ON
d95	1	-71.3448	6.210376	-11.49	<.0001	BINARY VARIABLE-1995
dsep12on	1	-19.9965	4.752936	-4.21	<.0001	BINARY VARIABLE-SEPTEMBER 2012 ON
jan20on	1	-9.61749	6.240965	-1.54	0.1244	BINARY VARIABLE-JANUARY 2020 ON

Durbin-Watson	1.50652
Number of Observations	313
First-Order Autocorrelation	0.245842



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time		Residual Values Sum
1995.000000	**	-12.2399
1995.0833333	**	-11.4634
1995.1666667	***	16.9123
1995.2500000	*	4.5537
1995.3333333	*	4.8697
1995.4166667	**	9.7058
1995.5000000	*****	-28.0644
1995.5833333	*	-6.1910
1995.6666667	*****	-29.3936
1995.7500000	*****	33.2158
1995.8333333	*****	26.0067
1995.9166667	**	-7.9117
1996.0000000	***	-15.5607
1996.0833333		0.0966
1996.1666667	*****	-26.6843
1996.2500000	*	-6.7399
1996.3333333		-0.9326
1996.4166667	*****	-31.2913
1996.5000000	*****	-23.6570
1996.5833333	*	-5.9957
1996.6666667	*****	-23.4618
1996.7500000	*****	22.7634
1996.8333333	*****	-32.0177
1996.9166667	*****	-25.0679
1997.0000000		1.8867
1997.0833333	***	-12.9325
1997.1666667	*****	-36.4604
1997.2500000	***	16.2754
1997.3333333	*****	-22.8762
1997.4166667	*	-3.7674
1997.5000000	*	-4.2201
1997.5833333	*****	-23.2114
1997.6666667	***	-13.0031
1997.7500000	***	15.2550
1997.8333333	****	-21.4664
1997.9166667	***	-12.5211
1998.0000000	*****	-30.5682
1998.0833333	****	-18.3233
1998.1666667	**	-8.4758
1998.2500000		0.5544
1998.3333333	**	-9.8053
1998.4166667	**	7.7167
1998.5000000	*****	-35.8926
1998.5833333	*****	34.3116
1998.6666667		1.7283
1998.7500000	*****	38.4274
1998.8333333		2.4762
1998.9166667	*	5.1079

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1999.000000	*****	-45.2049
1999.0833333	****	19.5480
1999.1666667	*****	25.0909
1999.2500000	*****	43.1727
1999.3333333	*	4.9284
1999.4166667	****	17.7857
1999.5000000	*	7.4534
1999.5833333	*****	24.4854
1999.6666667	*****	24.1259
1999.7500000	****	21.5123
1999.8333333	*****	37.5675
1999.9166667	*	3.9964
2000.0000000	****	19.4612
2000.0833333	*****	37.3814
2000.1666667	****	22.4849
2000.2500000		2.2154
2000.3333333	*****	29.3951
2000.4166667	*****	23.9986
2000.5000000		0.8762
2000.5833333	*	-3.0796
2000.6666667	***	15.5092
2000.7500000	*	6.4035
2000.8333333	****	-20.6603
2000.9166667	****	18.8444
2001.0000000	*	6.6000
2001.0833333	*	6.1424
2001.1666667	***	-13.4202
2001.2500000	****	-22.2334
2001.3333333	***	-13.4219
2001.4166667	****	-19.3538
2001.5000000	*****	116.6668
2001.5833333	*	4.7597
2001.6666667	*****	-27.6963
2001.7500000	*****	-25.3010
2001.8333333	***	-15.3563
2001.9166667	*****	-28.2828
2002.0000000		-0.5691
2002.0833333	*	-3.3942
2002.1666667	*	-4.7914
2002.2500000	*	6.1598
2002.3333333	*	7.0393
2002.4166667	*	-6.2233
2002.5000000		-0.8186
2002.5833333	*	-4.3660
2002.6666667	**	8.0372
2002.7500000		1.9126
2002.8333333	*	3.8353
2002.9166667	***	-14.8835
2003.0000000	**	9.6474
2003.0833333	*	5.4769
2003.1666667	**	-10.8905

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
MODEL RESIDUALS

2003.2500000	**	-8.4747
2003.3333333	*	-3.1229
2003.4166667	*	-7.4738
2003.5000000	*****	-29.6107
2003.5833333	****	-20.2200
2003.6666667	*	3.1669
2003.7500000	***	15.0847
2003.8333333		1.7966
2003.9166667	*****	-22.9290
2004.0000000	****	17.7257
2004.0833333	**	8.7001
2004.1666667		-1.6748
2004.2500000	**	7.5690
2004.3333333	*	5.7032
2004.4166667	**	9.7564
2004.5000000	**	-9.8160
2004.5833333	*	-7.3097
2004.6666667	****	20.5461
2004.7500000		0.5124
2004.8333333		1.2594
2004.9166667		0.7993
2005.0000000	***	-15.3723
2005.0833333	**	10.4762
2005.1666667	*	4.8768
2005.2500000	****	-21.7984
2005.3333333	*	3.9437
2005.4166667	*	-6.0173
2005.5000000	**	-9.9147
2005.5833333	*	5.6678
2005.6666667	*****	22.8490
2005.7500000	*****	33.2912
2005.8333333	*	-6.8016
2005.9166667	*	6.2969
2006.0000000	***	13.2316
2006.0833333	*	6.8643
2006.1666667	**	7.7604
2006.2500000	**	-11.1482
2006.3333333	**	9.3038
2006.4166667	*	-3.7384
2006.5000000		-0.9162
2006.5833333	**	9.2642
2006.6666667	**	8.0331
2006.7500000	**	-8.7974
2006.8333333	*	-4.7677
2006.9166667	**	-12.0996
2007.0000000	****	-21.3187
2007.0833333	***	-12.6856
2007.1666667	**	-10.6673
2007.2500000	*****	-29.0016
2007.3333333	*****	-22.8906
2007.4166667	***	-12.8121

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
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2007.5000000	**	-11.7542
2007.5833333	**	-8.6581
2007.6666667	**	9.5724
2007.7500000		1.1099
2007.8333333	*****	-25.5310
2007.9166667	***	-12.9314
2008.0000000		0.3045
2008.0833333		1.9781
2008.1666667	*	4.8755
2008.2500000	*	3.5140
2008.3333333	**	11.3609
2008.4166667	****	22.0642
2008.5000000	**	7.9600
2008.5833333	****	19.3705
2008.6666667		0.8853
2008.7500000	*****	-52.7299
2008.8333333	*****	-58.5337
2008.9166667	*****	-30.8005
2009.0000000	*	-4.3698
2009.0833333	*	-6.7440
2009.1666667	****	-18.9648
2009.2500000	*	-4.0641
2009.3333333	***	-13.0775
2009.4166667	**	10.4624
2009.5000000	****	21.0591
2009.5833333	****	20.5981
2009.6666667	*****	28.6598
2009.7500000	*****	23.5552
2009.8333333	*	5.7364
2009.9166667	*****	26.9503
2010.0000000	*****	37.0091
2010.0833333	***	12.7363
2010.1666667	****	20.6743
2010.2500000	*	2.9481
2010.3333333	**	9.1297
2010.4166667	***	-16.3785
2010.5000000	***	-16.1255
2010.5833333	*	-2.5590
2010.6666667	*****	-23.9706
2010.7500000	****	-19.2096
2010.8333333	*	6.1105
2010.9166667	*****	32.4741
2011.0000000	**	10.6556
2011.0833333	*****	-26.7600
2011.1666667	***	13.9524
2011.2500000	*	-5.9924
2011.3333333	*	6.3895
2011.4166667	***	17.2396
2011.5000000	****	-21.1397
2011.5833333	****	21.8946
2011.6666667	*****	25.9958

INDIANA MICHIGAN POWER COMPANY  
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2011.7500000		*		-2.6446
2011.8333333				5.9633
2011.9166667				13.5524
2012.0000000				17.5758
2012.0833333		**		-9.2876
2012.1666667		**		-9.0370
2012.2500000				15.9554
2012.3333333				-1.1982
2012.4166667		**		-9.1320
2012.5000000				2.9808
2012.5833333				1.0064
2012.6666667		*		-7.2637
2012.7500000				3.2934
2012.8333333				34.9259
2012.9166667				7.8714
2013.0000000				12.4455
2013.0833333				15.7309
2013.1666667		*		-6.2142
2013.2500000		**		-7.9713
2013.3333333				7.2343
2013.4166667		*		-5.9825
2013.5000000				11.8353
2013.5833333		***		-17.3904
2013.6666667				16.2388
2013.7500000				3.8789
2013.8333333				18.0943
2013.9166667				1.4775
2014.0000000		***		-16.3735
2014.0833333		*		-6.9454
2014.1666667				8.7505
2014.2500000				10.5066
2014.3333333				10.4953
2014.4166667				1.0923
2014.5000000				8.9970
2014.5833333		*		-2.5542
2014.6666667		**		-10.9527
2014.7500000				3.2557
2014.8333333				23.8717
2014.9166667				5.7068
2015.0000000				0.7677
2015.0833333		****		-21.3671
2015.1666667		*****		-36.2723
2015.2500000		***		-16.0890
2015.3333333		*		-7.2427
2015.4166667				9.3565
2015.5000000		***		-14.8614
2015.5833333				-0.2995
2015.6666667		**		-12.1377
2015.7500000		*****		-31.3623
2015.8333333		*****		-25.4655
2015.9166667				19.4553

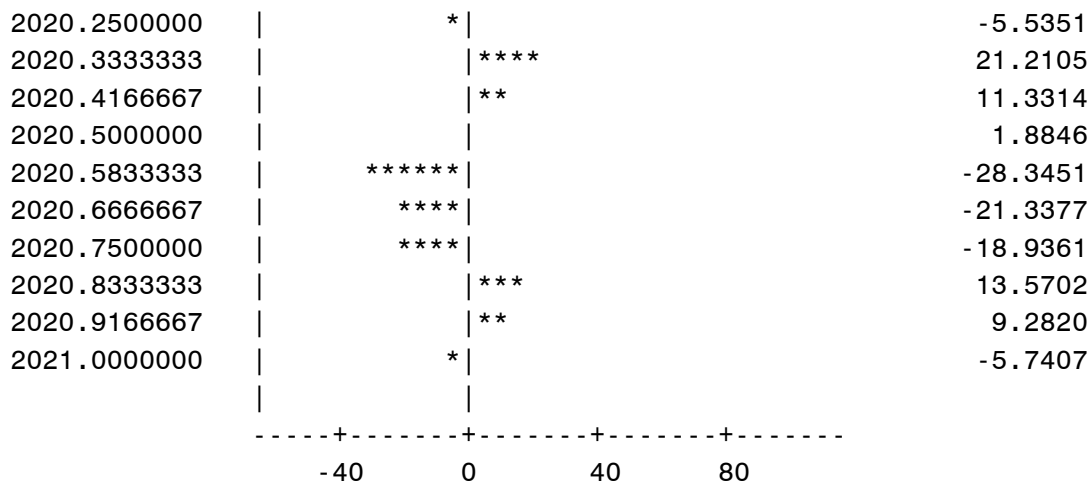
INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
MODEL RESIDUALS

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2016.0000000	****	-17.9110
2016.0833333	**	8.4062
2016.1666667	***	12.9266
2016.2500000	**	10.2219
2016.3333333	*	3.9799
2016.4166667	**	11.7503
2016.5000000	***	12.8056
2016.5833333	*	6.7197
2016.6666667	*	-6.2927
2016.7500000	*****	-37.6217
2016.8333333	***	13.6283
2016.9166667	**	10.3224
2017.0000000	****	21.3764
2017.0833333	*	5.8111
2017.1666667	**	8.3536
2017.2500000	*	-4.7663
2017.3333333	*****	-26.9796
2017.4166667	**	-10.3503
2017.5000000	*	5.9530
2017.5833333	**	7.5192
2017.6666667		-2.0618
2017.7500000	*	-2.6864
2017.8333333	****	19.7195
2017.9166667	****	20.3469
2018.0000000	****	21.3882
2018.0833333	*	-4.8792
2018.1666667	**	8.2360
2018.2500000	***	14.5325
2018.3333333		-1.0524
2018.4166667		2.1643
2018.5000000	***	17.3759
2018.5833333		-1.6683
2018.6666667		2.3394
2018.7500000	*	-6.6758
2018.8333333		-0.8277
2018.9166667		0.4065
2019.0000000	*	3.1469
2019.0833333	**	-8.3560
2019.1666667		1.8393
2019.2500000	*	5.6356
2019.3333333	**	-12.3833
2019.4166667	****	-21.9037
2019.5000000	**	-9.0567
2019.5833333	*****	-23.7493
2019.6666667	**	-10.1158
2019.7500000	****	-17.5065
2019.8333333	*	-3.1342
2019.9166667	***	-15.4631
2020.0000000	**	-7.9933
2020.0833333	*	3.7900
2020.1666667	*****	26.8193

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Residual Values

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

year	ENERGY SALES	GROWTH SALES	BASE ENERGY	ADDITIONS
1995	5594.15	.	5594.15	0.000
1996	6314.512	12.9	6314.51	0.000
1997	6520.515	3.3	6520.51	0.000
1998	6763.596	3.7	6763.60	0.000
1999	7123.156	5.3	7123.16	0.000
2000	7138.338	0.2	7138.34	0.000
2001	7067.704	-1.0	7067.70	0.000
2002	7065.504	0.0	7065.50	0.000
2003	6852.608	-3.0	6852.61	0.000
2004	7045.28	2.8	7045.28	0.000
2005	7022.773	-0.3	7022.77	0.000
2006	7016.164	-0.1	7016.16	0.000
2007	6926.731	-1.3	6926.73	0.000
2008	6587.834	-4.9	6587.83	0.000
2009	6004.383	-8.9	6004.38	0.000
2010	6580.516	9.6	6580.52	0.000
2011	6725.126	2.2	6725.13	0.000
2012	6753.879	0.4	6753.88	0.000
2013	6721.776	-0.5	6721.78	0.000
2014	6858.051	2.0	6858.05	0.000
2015	6749.086	-1.6	6749.09	0.000
2016	6924.429	2.6	6924.43	0.000
2017	6957.175	0.5	6957.17	0.000
2018	7042.616	1.2	7042.62	0.000
2019	6822.627	-3.1	6822.63	0.000
2020	6450.055	-5.5	6450.05	0.000
2021	6835.052	6.0	6851.68	-16.632
2022	6898.328	0.9	6892.47	5.856
2023	6869.238	-0.4	6863.38	5.856
2024	6829.926	-0.6	6824.07	5.856
2025	6845.547	0.2	6839.69	5.856
2026	6865.759	0.3	6859.90	5.856
2027	6909.759	0.6	6903.90	5.856
2028	6971.168	0.9	6965.31	5.856
2029	7015.546	0.6	7009.69	5.856
2030	7055.695	0.6	7049.84	5.856
2031	7101.233	0.6	7095.38	5.856
2032	7146.583	0.6	7140.73	5.856
2033	7200.426	0.8	7194.57	5.856
2034	7254.072	0.7	7248.22	5.856
2035	7296.256	0.6	7290.40	5.856
2036	7332.094	0.5	7326.24	5.856
2037	7367.508	0.5	7361.65	5.856
2038	7408.209	0.6	7402.35	5.856
2039	7452.708	0.6	7446.85	5.856
2040	7493.477	0.5	7487.62	5.856
2041	7527.354	0.5	7521.50	5.856



INDIANA MICHIGAN POWER COMPANY  
INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit C  
PUBLIC REDACTED

year	ENERGY SALES	GROWTH SALES	BASE ENERGY	ADDITIONS
2042	7564.355	0.5	7558.50	5.856
2043	7600.061	0.5	7594.21	5.856
2044	7635.775	0.5	7629.92	5.856
2045	7675.72	0.5	7669.86	5.856
2046	7718.207	0.6	7712.35	5.856
2047	7754.957	0.5	7749.10	5.856
2048	7788.042	0.4	7782.19	5.856
2049	7819.686	0.4	7813.83	5.856
2050	7848.77	0.4	7842.91	5.856
2051	7878.184	0.4	7872.33	5.856
2052	7907.689	0.4	7901.83	5.856
2053	7937.083	0.4	7931.23	5.856
2054	7966.495	0.4	7960.64	5.856
2055	7995.922	0.4	7990.07	5.856
2056	8025.367	0.4	8019.51	5.856
2057	8054.828	0.4	8048.97	5.856

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
1	1995	1	445.063	CONFID.
2	1995	2	434.885	CONFID.
3	1995	3	485.973	CONFID.
4	1995	4	462.101	CONFID.
5	1995	5	477.43	CONFID.
6	1995	6	484.029	CONFID.
7	1995	7	446.893	CONDID.
8	1995	8	483.124	CONFID.
9	1995	9	451.58	CONFID.
10	1995	10	495.133	CONFID.
11	1995	11	473.149	CONFID.
12	1995	12	454.79	CONFID.
13	1996	1	506.5363	CONFID.
14	1996	2	510.7182	CONFID.
15	1996	3	509.1997	CONFID.
16	1996	4	523.2746	CONFID.
17	1996	5	549.2134	CONFID.
18	1996	6	523.7555	CONFID.
19	1996	7	532.4252	CONDID.
20	1996	8	562.1799	CONFID.
21	1996	9	533.4938	CONFID.
22	1996	10	557.9409	CONFID.
23	1996	11	489.2345	CONFID.
24	1996	12	516.5402	CONFID.
25	1997	1	537.9642	CONFID.
26	1997	2	514.5719	CONFID.
27	1997	3	513.6808	CONFID.
28	1997	4	555.2667	CONFID.
29	1997	5	531.4818	CONFID.
30	1997	6	553.8671	CONFID.
31	1997	7	557.1743	CONDID.
32	1997	8	555.3932	CONFID.
33	1997	9	559.4926	CONFID.
34	1997	10	570.845	CONFID.
35	1997	11	521.8339	CONFID.
36	1997	12	548.9433	CONFID.
37	1998	1	522.1611	CONFID.
38	1998	2	523.2191	CONFID.
39	1998	3	555.7506	CONFID.
40	1998	4	554.6195	CONFID.
41	1998	5	558.8179	CONFID.
42	1998	6	576.8707	CONFID.
43	1998	7	532.5246	CONDID.
44	1998	8	617.8052	CONFID.
45	1998	9	580.4243	CONFID.
46	1998	10	603.798	CONFID.
47	1998	11	558.0011	CONFID.
48	1998	12	579.6036	CONFID.
49	1999	1	519.1415	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
50	1999	2	571.4783	CONFID.
51	1999	3	600.4029	CONFID.
52	1999	4	609.3566	CONFID.
53	1999	5	588.3993	CONFID.
54	1999	6	604.8096	CONFID.
55	1999	7	595.7039	CONDID.
56	1999	8	627.5208	CONFID.
57	1999	9	619.0776	CONFID.
58	1999	10	598.5051	CONFID.
59	1999	11	601.8821	CONFID.
60	1999	12	586.8782	CONFID.
61	2000	1	593.8731	CONFID.
62	2000	2	601.5177	CONFID.
63	2000	3	610.609	CONFID.
64	2000	4	581.0451	CONFID.
65	2000	5	624.1091	CONFID.
66	2000	6	620.2041	CONFID.
67	2000	7	595.2475	CONDID.
68	2000	8	602.1409	CONFID.
69	2000	9	609.4992	CONFID.
70	2000	10	578.3946	CONFID.
71	2000	11	534.1597	CONFID.
72	2000	12	587.5377	CONFID.
73	2001	1	562.522	CONFID.
74	2001	2	549.0661	CONFID.
75	2001	3	586.6955	CONFID.
76	2001	4	570.2732	CONFID.
77	2001	5	597.5152	CONFID.
78	2001	6	594.6218	CONFID.
79	2001	7	730.9623	CONDID.
80	2001	8	631.9577	CONFID.
81	2001	9	589.4201	CONFID.
82	2001	10	572.8912	CONFID.
83	2001	11	537.5029	CONFID.
84	2001	12	544.2759	CONFID.
85	2002	1	565.8917	CONFID.
86	2002	2	554.4982	CONFID.
87	2002	3	578.8751	CONFID.
88	2002	4	582.4315	CONFID.
89	2002	5	602.319	CONFID.
90	2002	6	594.2844	CONFID.
91	2002	7	602.8749	CONDID.
92	2002	8	614.3839	CONFID.
93	2002	9	617.7006	CONFID.
94	2002	10	591.8831	CONFID.
95	2002	11	580.0996	CONFID.
96	2002	12	580.2616	CONFID.
97	2003	1	573.4895	CONFID.
98	2003	2	558.3607	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
99	2003	3	564.4867	CONFID.
100	2003	4	555.21	CONFID.
101	2003	5	576.1037	CONFID.
102	2003	6	575.6623	CONFID.
103	2003	7	556.9208	CONDID.
104	2003	8	582.2612	CONFID.
105	2003	9	597.5811	CONFID.
106	2003	10	590.5284	CONFID.
107	2003	11	563.8974	CONFID.
108	2003	12	558.1062	CONFID.
109	2004	1	591.1904	CONFID.
110	2004	2	571.6933	CONFID.
111	2004	3	584.2021	CONFID.
112	2004	4	582.1246	CONFID.
113	2004	5	595.1821	CONFID.
114	2004	6	600.7901	CONFID.
115	2004	7	581.1516	CONDID.
116	2004	8	597.2478	CONFID.
117	2004	9	616.325	CONFID.
118	2004	10	577.2869	CONFID.
119	2004	11	564.9906	CONFID.
120	2004	12	583.0957	CONFID.
121	2005	1	558.5265	CONFID.
122	2005	2	572.8868	CONFID.
123	2005	3	589.6879	CONFID.
124	2005	4	551.5711	CONFID.
125	2005	5	592.4665	CONFID.
126	2005	6	584.8243	CONFID.
127	2005	7	581.8307	CONDID.
128	2005	8	611.8744	CONFID.
129	2005	9	620.5461	CONFID.
130	2005	10	612.1391	CONFID.
131	2005	11	558.0226	CONFID.
132	2005	12	588.3965	CONFID.
133	2006	1	585.8103	CONFID.
134	2006	2	568.0625	CONFID.
135	2006	3	593.1102	CONFID.
136	2006	4	564.774	CONFID.
137	2006	5	601.6685	CONFID.
138	2006	6	589.9968	CONFID.
139	2006	7	591.6418	CONDID.
140	2006	8	614.3286	CONFID.
141	2006	9	604.5194	CONFID.
142	2006	10	569.5298	CONFID.
143	2006	11	561.0125	CONFID.
144	2006	12	571.7102	CONFID.
145	2007	1	554.0955	CONFID.
146	2007	2	552.4443	CONFID.
147	2007	3	580.4356	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
148	2007	4	555.1105	CONFID.
149	2007	5	579.5736	CONFID.
150	2007	6	592.4012	CONFID.
151	2007	7	592.7365	CONDID.
152	2007	8	607.259	CONFID.
153	2007	9	614.2926	CONFID.
154	2007	10	584.8136	CONFID.
155	2007	11	542.5132	CONFID.
156	2007	12	571.0556	CONFID.
157	2008	1	572.9256	CONFID.
158	2008	2	559.9062	CONFID.
159	2008	3	581.6669	CONFID.
160	2008	4	564.7042	CONFID.
161	2008	5	583.4742	CONFID.
162	2008	6	591.2739	CONFID.
163	2008	7	572.7185	CONDID.
164	2008	8	592.4687	CONFID.
165	2008	9	559.4872	CONFID.
166	2008	10	479.4442	CONFID.
167	2008	11	449.3421	CONFID.
168	2008	12	480.4226	CONFID.
169	2009	1	480.3961	CONFID.
170	2009	2	450.4962	CONFID.
171	2009	3	450.8111	CONFID.
172	2009	4	452.2333	CONFID.
173	2009	5	463.4872	CONFID.
174	2009	6	499.5121	CONFID.
175	2009	7	522.7519	CONDID.
176	2009	8	546.6993	CONFID.
177	2009	9	552.8066	CONFID.
178	2009	10	532.8112	CONFID.
179	2009	11	504.974	CONFID.
180	2009	12	547.4043	CONFID.
181	2010	1	552.3489	CONFID.
182	2010	2	520.3179	CONFID.
183	2010	3	555.2909	CONFID.
184	2010	4	531.5204	CONFID.
185	2010	5	558.832	CONFID.
186	2010	6	541.3213	CONFID.
187	2010	7	547.2915	CONDID.
188	2010	8	577.0647	CONFID.
189	2010	9	545.7517	CONFID.
190	2010	10	528.1695	CONFID.
191	2010	11	538.4091	CONFID.
192	2010	12	584.1981	CONFID.
193	2011	1	556.5215	CONFID.
194	2011	2	509.029	CONFID.
195	2011	3	570.8447	CONFID.
196	2011	4	537.3576	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
197	2011	5	563.3275	CONFID.
198	2011	6	577.2622	CONFID.
199	2011	7	542.0551	CONDID.
200	2011	8	601.6735	CONFID.
201	2011	9	597.7811	CONFID.
202	2011	10	550.3301	CONFID.
203	2011	11	545.8797	CONFID.
204	2011	12	573.0644	CONFID.
205	2012	1	570.4171	CONFID.
206	2012	2	534.0153	CONFID.
207	2012	3	558.0769	CONFID.
208	2012	4	573.1815	CONFID.
209	2012	5	571.3803	CONFID.
210	2012	6	565.2665	CONFID.
211	2012	7	577.1958	CONDID.
212	2012	8	588.7895	CONFID.
213	2012	9	551.9438	CONFID.
214	2012	10	544.6008	CONFID.
215	2012	11	563.5895	CONFID.
216	2012	12	555.4219	CONFID.
217	2013	1	552.1268	CONFID.
218	2013	2	545.1737	CONFID.
219	2013	3	547.9073	CONFID.
220	2013	4	536.9473	CONFID.
221	2013	5	569.2039	CONFID.
222	2013	6	558.789	CONFID.
223	2013	7	577.4297	CONDID.
224	2013	8	562.7971	CONFID.
225	2013	9	589.0043	CONFID.
226	2013	10	559.0491	CONFID.
227	2013	11	561.0187	CONFID.
228	2013	12	562.3288	CONFID.
229	2014	1	535.0116	CONFID.
230	2014	2	533.1196	CONFID.
231	2014	3	573.4851	CONFID.
232	2014	4	567.1311	CONFID.
233	2014	5	585.8228	CONFID.
234	2014	6	581.0288	CONFID.
235	2014	7	591.038	CONDID.
236	2014	8	593.9361	CONFID.
237	2014	9	576.1844	CONFID.
238	2014	10	570.1743	CONFID.
239	2014	11	575.9166	CONFID.
240	2014	12	575.2029	CONFID.
241	2015	1	561.2531	CONFID.
242	2015	2	527.6418	CONFID.
243	2015	3	536.7722	CONFID.
244	2015	4	547.2244	CONFID.
245	2015	5	573.7563	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
246	2015	6	594.801	CONFID.
247	2015	7	572.7484	CONDID.
248	2015	8	601.2221	CONFID.
249	2015	9	578.7481	CONFID.
250	2015	10	537.597	CONFID.
251	2015	11	527.4492	CONFID.
252	2015	12	589.8728	CONFID.
253	2016	1	544.5754	CONFID.
254	2016	2	559.7568	CONFID.
255	2016	3	587.4488	CONFID.
256	2016	4	573.3268	CONFID.
257	2016	5	583.1317	CONFID.
258	2016	6	595.2635	CONFID.
259	2016	7	598.789	CONDID.
260	2016	8	607.8734	CONFID.
261	2016	9	585.9521	CONFID.
262	2016	10	534.0034	CONFID.
263	2016	11	570.5345	CONFID.
264	2016	12	583.7737	CONFID.
265	2017	1	585.7369	CONFID.
266	2017	2	559.3046	CONFID.
267	2017	3	586.1146	CONFID.
268	2017	4	563.3794	CONFID.
269	2017	5	557.466	CONFID.
270	2017	6	576.0374	CONFID.
271	2017	7	591.6151	CONDID.
272	2017	8	606.0111	CONFID.
273	2017	9	587.2093	CONFID.
274	2017	10	567.7227	CONFID.
275	2017	11	578.0346	CONFID.
276	2017	12	598.5434	CONFID.
277	2018	1	592.6421	CONFID.
278	2018	2	555.9168	CONFID.
279	2018	3	591.6134	CONFID.
280	2018	4	586.0074	CONFID.
281	2018	5	585.6396	CONFID.
282	2018	6	591.7216	CONFID.
283	2018	7	609.3525	CONDID.
284	2018	8	605.4945	CONFID.
285	2018	9	601.7443	CONFID.
286	2018	10	574.0402	CONFID.
287	2018	11	565.5359	CONFID.
288	2018	12	582.9078	CONFID.
289	2019	1	574.7303	CONFID.
290	2019	2	550.0202	CONFID.
291	2019	3	581.6774	CONFID.
292	2019	4	575.1775	CONFID.
293	2019	5	573.8886	CONFID.
294	2019	6	568.8296	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
295	2019	7	583.1765	CONDID.
296	2019	8	580.5804	CONFID.
297	2019	9	579.7264	CONFID.
298	2019	10	547.4396	CONFID.
299	2019	11	547.8022	CONFID.
300	2019	12	559.5783	CONFID.
301	2020	1	552.4036	CONFID.
302	2020	2	543.3627	CONFID.
303	2020	3	557.091	CONFID.
304	2020	4	461.629	CONFID.
305	2020	5	473.4904	CONFID.
306	2020	6	508.8628	CONFID.
307	2020	7	553.3962	CONDID.
308	2020	8	567.0317	CONFID.
309	2020	9	570.0996	CONFID.
310	2020	10	544.1887	CONFID.
311	2020	11	552.8134	CONFID.
312	2020	12	565.6854	CONFID.
313	2021	1	548.4334	CONFID.
314	2021	2	547.7146	CONFID.
315	2021	3	573.6337	CONFID.
316	2021	4	562.516	CONFID.
317	2021	5	577.059	CONFID.
318	2021	6	579.4051	CONFID.
319	2021	7	580.7374	CONDID.
320	2021	8	594.9957	CONFID.
321	2021	9	585.8176	CONFID.
322	2021	10	565.0961	CONFID.
323	2021	11	550.8429	CONFID.
324	2021	12	568.8003	CONFID.
325	2022	1	562.8364	CONFID.
326	2022	2	552.4464	CONFID.
327	2022	3	576.0393	CONFID.
328	2022	4	566.0404	CONFID.
329	2022	5	582.3133	CONFID.
330	2022	6	584.9895	CONFID.
331	2022	7	585.9144	CONDID.
332	2022	8	599.4326	CONFID.
333	2022	9	589.8184	CONFID.
334	2022	10	569.9381	CONFID.
335	2022	11	555.6956	CONFID.
336	2022	12	572.8636	CONFID.
337	2023	1	563.7164	CONFID.
338	2023	2	552.0553	CONFID.
339	2023	3	574.5745	CONFID.
340	2023	4	564.0343	CONFID.
341	2023	5	579.9837	CONFID.
342	2023	6	582.4271	CONFID.
343	2023	7	582.9176	CONDID.



INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
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Obs	year	month	ei_imi	SDI
344	2023	8	596.2476	CONFID.
345	2023	9	586.4599	CONFID.
346	2023	10	566.2097	CONFID.
347	2023	11	551.7038	CONFID.
348	2023	12	568.9085	CONFID.
349	2024	1	559.9699	CONFID.
350	2024	2	548.6268	CONFID.
351	2024	3	571.4136	CONFID.
352	2024	4	560.7759	CONFID.
353	2024	5	576.6322	CONFID.
354	2024	6	578.9078	CONFID.
355	2024	7	579.4191	CONDID.
356	2024	8	592.7651	CONFID.
357	2024	9	583.0986	CONFID.
358	2024	10	563.0621	CONFID.
359	2024	11	548.838	CONFID.
360	2024	12	566.4167	CONFID.
361	2025	1	557.9632	CONFID.
362	2025	2	547.085	CONFID.
363	2025	3	570.4305	CONFID.
364	2025	4	560.4527	CONFID.
365	2025	5	577.0401	CONFID.
366	2025	6	580.0653	CONFID.
367	2025	7	581.3811	CONDID.
368	2025	8	595.4263	CONFID.
369	2025	9	586.3121	CONFID.
370	2025	10	566.6525	CONFID.
371	2025	11	552.5997	CONFID.
372	2025	12	570.1384	CONFID.
373	2026	1	561.3506	CONFID.
374	2026	2	550.0682	CONFID.
375	2026	3	572.9825	CONFID.
376	2026	4	562.5668	CONFID.
377	2026	5	578.7542	CONFID.
378	2026	6	581.421	CONFID.
379	2026	7	582.4982	CONDID.
380	2026	8	596.3664	CONFID.
381	2026	9	587.1683	CONFID.
382	2026	10	567.5333	CONFID.
383	2026	11	553.6211	CONFID.
384	2026	12	571.4281	CONFID.
385	2027	1	562.9844	CONFID.
386	2027	2	552.0938	CONFID.
387	2027	3	575.4418	CONFID.
388	2027	4	565.4824	CONFID.
389	2027	5	582.1021	CONFID.
390	2027	6	585.2057	CONFID.
391	2027	7	586.5579	CONDID.
392	2027	8	600.7144	CONFID.

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MANUFACTURING ENERGY SALES  
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Obs	year	month	ei_imi	SDI
393	2027	9	591.7581	CONFID.
394	2027	10	572.3237	CONFID.
395	2027	11	558.5784	CONFID.
396	2027	12	576.5166	CONFID.
397	2028	1	568.1485	CONFID.
398	2028	2	557.3129	CONFID.
399	2028	3	580.7021	CONFID.
400	2028	4	570.7639	CONFID.
401	2028	5	587.3868	CONFID.
402	2028	6	590.4672	CONFID.
403	2028	7	591.7775	CONDID.
404	2028	8	605.8688	CONFID.
405	2028	9	596.8238	CONFID.
406	2028	10	577.2822	CONFID.
407	2028	11	563.4158	CONFID.
408	2028	12	581.2183	CONFID.
409	2029	1	572.7351	CONFID.
410	2029	2	561.751	CONFID.
411	2029	3	584.958	CONFID.
412	2029	4	574.8198	CONFID.
413	2029	5	591.2484	CONFID.
414	2029	6	594.1658	CONFID.
415	2029	7	595.3165	CONDID.
416	2029	8	609.2689	CONFID.
417	2029	9	600.0952	CONFID.
418	2029	10	580.4419	CONFID.
419	2029	11	566.4934	CONFID.
420	2029	12	584.2521	CONFID.
421	2030	1	575.7656	CONFID.
422	2030	2	564.8057	CONFID.
423	2030	3	588.0589	CONFID.
424	2030	4	577.9784	CONFID.
425	2030	5	594.461	CONFID.
426	2030	6	597.4323	CONFID.
427	2030	7	598.6189	CONDID.
428	2030	8	612.6469	CONFID.
429	2030	9	603.5855	CONFID.
430	2030	10	584.0601	CONFID.
431	2030	11	570.2251	CONFID.
432	2030	12	588.0567	CONFID.
433	2031	1	579.6075	CONFID.
434	2031	2	568.6489	CONFID.
435	2031	3	591.8776	CONFID.
436	2031	4	581.7644	CONFID.
437	2031	5	598.229	CONFID.
438	2031	6	601.2035	CONFID.
439	2031	7	602.4197	CONDID.
440	2031	8	616.4638	CONFID.
441	2031	9	607.3952	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
442	2031	10	587.8465	CONFID.
443	2031	11	573.9838	CONFID.
444	2031	12	591.7926	CONFID.
445	2032	1	583.3403	CONFID.
446	2032	2	572.3798	CONFID.
447	2032	3	595.5997	CONFID.
448	2032	4	585.4695	CONFID.
449	2032	5	601.9182	CONFID.
450	2032	6	604.8882	CONFID.
451	2032	7	606.1099	CONDID.
452	2032	8	620.1908	CONFID.
453	2032	9	611.1901	CONFID.
454	2032	10	591.7264	CONFID.
455	2032	11	577.9466	CONFID.
456	2032	12	595.824	CONFID.
457	2033	1	587.4407	CONFID.
458	2033	2	576.5566	CONFID.
459	2033	3	599.8764	CONFID.
460	2033	4	589.8656	CONFID.
461	2033	5	606.4263	CONFID.
462	2033	6	609.4781	CONFID.
463	2033	7	610.7626	CONDID.
464	2033	8	624.8638	CONFID.
465	2033	9	615.8488	CONFID.
466	2033	10	596.3525	CONFID.
467	2033	11	582.5438	CONFID.
468	2033	12	600.4102	CONFID.
469	2034	1	592.0247	CONFID.
470	2034	2	581.1362	CONFID.
471	2034	3	604.4399	CONFID.
472	2034	4	594.4061	CONFID.
473	2034	5	610.9475	CONFID.
474	2034	6	613.9816	CONFID.
475	2034	7	615.2674	CONDID.
476	2034	8	629.3523	CONFID.
477	2034	9	620.3023	CONFID.
478	2034	10	600.7482	CONFID.
479	2034	11	586.8545	CONFID.
480	2034	12	604.6107	CONFID.
481	2035	1	596.0959	CONFID.
482	2035	2	585.0911	CONFID.
483	2035	3	608.2968	CONFID.
484	2035	4	598.1721	CONFID.
485	2035	5	614.6182	CONFID.
486	2035	6	617.5491	CONFID.
487	2035	7	618.7132	CONDID.
488	2035	8	632.6835	CONFID.
489	2035	9	623.5342	CONFID.
490	2035	10	603.8983	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
491	2035	11	589.9434	CONFID.
492	2035	12	607.6601	CONFID.
493	2036	1	599.125	CONFID.
494	2036	2	588.1149	CONFID.
495	2036	3	611.3196	CONFID.
496	2036	4	601.1895	CONFID.
497	2036	5	617.6234	CONFID.
498	2036	6	620.5323	CONFID.
499	2036	7	621.6724	CONDID.
500	2036	8	635.6234	CONFID.
501	2036	9	626.4693	CONFID.
502	2036	10	606.8436	CONFID.
503	2036	11	592.9142	CONFID.
504	2036	12	610.6668	CONFID.
505	2037	1	602.1668	CONFID.
506	2037	2	591.1608	CONFID.
507	2037	3	614.3298	CONFID.
508	2037	4	604.1446	CONFID.
509	2037	5	620.5295	CONFID.
510	2037	6	623.406	CONFID.
511	2037	7	624.5587	CONDID.
512	2037	8	638.5233	CONFID.
513	2037	9	629.3854	CONFID.
514	2037	10	609.7783	CONFID.
515	2037	11	595.871	CONFID.
516	2037	12	613.654	CONFID.
517	2038	1	605.1966	CONFID.
518	2038	2	594.256	CONFID.
519	2038	3	617.5183	CONFID.
520	2038	4	607.441	CONFID.
521	2038	5	623.9223	CONFID.
522	2038	6	626.8663	CONFID.
523	2038	7	628.061	CONDID.
524	2038	8	642.05	CONFID.
525	2038	9	632.9267	CONFID.
526	2038	10	613.3287	CONFID.
527	2038	11	599.4268	CONFID.
528	2038	12	617.2154	CONFID.
529	2039	1	608.7602	CONFID.
530	2039	2	597.8335	CONFID.
531	2039	3	621.1251	CONFID.
532	2039	4	611.0879	CONFID.
533	2039	5	627.6101	CONFID.
534	2039	6	630.593	CONFID.
535	2039	7	631.8113	CONDID.
536	2039	8	645.8229	CONFID.
537	2039	9	636.7168	CONFID.
538	2039	10	617.1278	CONFID.
539	2039	11	603.2239	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
540	2039	12	620.9957	CONFID.
541	2040	1	612.5071	CONFID.
542	2040	2	601.5334	CONFID.
543	2040	3	624.7603	CONFID.
544	2040	4	614.6438	CONFID.
545	2040	5	631.0901	CONFID.
546	2040	6	634.007	CONFID.
547	2040	7	635.17	CONDID.
548	2040	8	649.1228	CONFID.
549	2040	9	639.9528	CONFID.
550	2040	10	620.2983	CONFID.
551	2040	11	606.3346	CONFID.
552	2040	12	624.0567	CONFID.
553	2041	1	615.5269	CONFID.
554	2041	2	604.5115	CONFID.
555	2041	3	627.6927	CONFID.
556	2041	4	617.5279	CONFID.
557	2041	5	633.9217	CONFID.
558	2041	6	636.7826	CONFID.
559	2041	7	637.8987	CONDID.
560	2041	8	651.8174	CONFID.
561	2041	9	642.6373	CONFID.
562	2041	10	623.005	CONFID.
563	2041	11	609.1036	CONFID.
564	2041	12	626.929	CONFID.
565	2042	1	618.5169	CONFID.
566	2042	2	607.5998	CONFID.
567	2042	3	630.8435	CONFID.
568	2042	4	620.7031	CONFID.
569	2042	5	637.0835	CONFID.
570	2042	6	639.9037	CONFID.
571	2042	7	640.9693	CONDID.
572	2042	8	654.8617	CONFID.
573	2042	9	645.6921	CONFID.
574	2042	10	626.0802	CONFID.
575	2042	11	612.1693	CONFID.
576	2042	12	629.9317	CONFID.
577	2043	1	621.4299	CONFID.
578	2043	2	610.4417	CONFID.
579	2043	3	633.6601	CONFID.
580	2043	4	623.5425	CONFID.
581	2043	5	639.9894	CONFID.
582	2043	6	642.908	CONFID.
583	2043	7	644.0615	CONDID.
584	2043	8	658.0002	CONFID.
585	2043	9	648.8082	CONFID.
586	2043	10	629.1348	CONFID.
587	2043	11	615.1693	CONFID.
588	2043	12	632.9159	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
589	2044	1	624.4293	CONFID.
590	2044	2	613.4674	CONFID.
591	2044	3	636.7014	CONFID.
592	2044	4	626.5763	CONFID.
593	2044	5	642.9883	CONFID.
594	2044	6	645.8433	CONFID.
595	2044	7	646.9402	CONDID.
596	2044	8	660.8547	CONFID.
597	2044	9	651.6952	CONFID.
598	2044	10	632.0904	CONFID.
599	2044	11	618.1962	CONFID.
600	2044	12	635.9924	CONFID.
601	2045	1	627.5331	CONFID.
602	2045	2	616.5863	CONFID.
603	2045	3	639.8397	CONFID.
604	2045	4	629.7495	CONFID.
605	2045	5	646.2139	CONFID.
606	2045	6	649.1409	CONFID.
607	2045	7	650.3123	CONDID.
608	2045	8	664.2904	CONFID.
609	2045	9	655.1686	CONFID.
610	2045	10	635.589	CONFID.
611	2045	11	621.7256	CONFID.
612	2045	12	639.57	CONFID.
613	2046	1	631.1559	CONFID.
614	2046	2	620.2377	CONFID.
615	2046	3	643.4947	CONFID.
616	2046	4	633.3878	CONFID.
617	2046	5	649.8266	CONFID.
618	2046	6	652.7347	CONFID.
619	2046	7	653.8724	CONDID.
620	2046	8	667.8194	CONFID.
621	2046	9	658.6588	CONFID.
622	2046	10	639.0304	CONFID.
623	2046	11	625.1072	CONFID.
624	2046	12	642.8815	CONFID.
625	2047	1	634.3997	CONFID.
626	2047	2	623.4303	CONFID.
627	2047	3	646.6582	CONFID.
628	2047	4	636.5342	CONFID.
629	2047	5	652.9542	CONFID.
630	2047	6	655.8357	CONFID.
631	2047	7	656.9264	CONDID.
632	2047	8	670.8308	CONFID.
633	2047	9	661.6331	CONFID.
634	2047	10	641.9722	CONFID.
635	2047	11	628.0189	CONFID.
636	2047	12	645.7629	CONFID.
637	2048	1	637.2553	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
638	2048	2	626.2659	CONFID.
639	2048	3	649.4755	CONFID.
640	2048	4	639.3306	CONFID.
641	2048	5	655.7319	CONFID.
642	2048	6	658.5957	CONFID.
643	2048	7	659.6721	CONDID.
644	2048	8	673.5614	CONFID.
645	2048	9	664.3479	CONFID.
646	2048	10	644.671	CONFID.
647	2048	11	630.7025	CONFID.
648	2048	12	648.4324	CONFID.
649	2049	1	639.9219	CONFID.
650	2049	2	628.9257	CONFID.
651	2049	3	652.1283	CONFID.
652	2049	4	641.9806	CONFID.
653	2049	5	658.3807	CONFID.
654	2049	6	661.2479	CONFID.
655	2049	7	662.3218	CONDID.
656	2049	8	676.2079	CONFID.
657	2049	9	666.9856	CONFID.
658	2049	10	647.2921	CONFID.
659	2049	11	633.2986	CONFID.
660	2049	12	650.995	CONFID.
661	2050	1	642.4446	CONFID.
662	2050	2	631.4137	CONFID.
663	2050	3	654.5884	CONFID.
664	2050	4	644.4176	CONFID.
665	2050	5	660.7968	CONFID.
666	2050	6	663.6379	CONFID.
667	2050	7	664.6989	CONDID.
668	2050	8	678.5743	CONFID.
669	2050	9	669.3531	CONFID.
670	2050	10	649.6752	CONFID.
671	2050	11	635.7127	CONFID.
672	2050	12	653.4569	CONFID.
673	2051	1	644.9774	CONFID.
674	2051	2	633.9146	CONFID.
675	2051	3	657.0648	CONFID.
676	2051	4	646.8743	CONFID.
677	2051	5	663.2357	CONFID.
678	2051	6	666.0604	CONFID.
679	2051	7	667.1046	CONDID.
680	2051	8	680.9723	CONFID.
681	2051	9	671.7554	CONFID.
682	2051	10	652.0957	CONFID.
683	2051	11	638.1672	CONFID.
684	2051	12	655.9617	CONFID.
685	2052	1	647.5478	CONFID.
686	2052	2	636.4478	CONFID.

INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
687	2052	3	659.568	CONFID.
688	2052	4	649.3522	CONFID.
689	2052	5	665.6903	CONFID.
690	2052	6	668.4913	CONFID.
691	2052	7	669.5152	CONDID.
692	2052	8	683.3697	CONFID.
693	2052	9	674.1516	CONFID.
694	2052	10	654.5048	CONFID.
695	2052	11	640.6051	CONFID.
696	2052	12	658.445	CONFID.
697	2053	1	650.0985	CONFID.
698	2053	2	638.9631	CONFID.
699	2053	3	662.0552	CONFID.
700	2053	4	651.816	CONFID.
701	2053	5	668.1327	CONFID.
702	2053	6	670.912	CONFID.
703	2053	7	671.9175	CONDID.
704	2053	8	685.7609	CONFID.
705	2053	9	676.5435	CONFID.
706	2053	10	656.9116	CONFID.
707	2053	11	643.0426	CONFID.
708	2053	12	660.9296	CONFID.
709	2054	1	652.6505	CONFID.
710	2054	2	641.4798	CONFID.
711	2054	3	664.5438	CONFID.
712	2054	4	654.2812	CONFID.
713	2054	5	670.5765	CONFID.
714	2054	6	673.3341	CONFID.
715	2054	7	674.3212	CONDID.
716	2054	8	688.1535	CONFID.
717	2054	9	678.9368	CONFID.
718	2054	10	659.3199	CONFID.
719	2054	11	645.4815	CONFID.
720	2054	12	663.4157	CONFID.
721	2055	1	655.2039	CONFID.
722	2055	2	643.9979	CONFID.
723	2055	3	667.0338	CONFID.
724	2055	4	656.7478	CONFID.
725	2055	5	673.0218	CONFID.
726	2055	6	675.7576	CONFID.
727	2055	7	676.7264	CONDID.
728	2055	8	690.5474	CONFID.
729	2055	9	681.3315	CONFID.
730	2055	10	661.7295	CONFID.
731	2055	11	647.9218	CONFID.
732	2055	12	665.9031	CONFID.
733	2056	1	657.7587	CONFID.
734	2056	2	646.5173	CONFID.
735	2056	3	669.5252	CONFID.



INDIANA SERVICE AREA  
MANUFACTURING ENERGY SALES  
ACTUAL AND FORECAST

Obs	year	month	ei_imi	SDI
736	2056	4	659.2157	CONFID.
737	2056	5	675.4684	CONFID.
738	2056	6	678.1825	CONFID.
739	2056	7	679.1329	CONDID.
740	2056	8	692.9428	CONFID.
741	2056	9	683.7276	CONFID.
742	2056	10	664.1404	CONFID.
743	2056	11	650.3634	CONFID.
744	2056	12	668.3919	CONFID.
745	2057	1	660.3148	CONFID.
746	2057	2	649.0381	CONFID.
747	2057	3	672.0179	CONFID.
748	2057	4	661.6851	CONFID.
749	2057	5	677.9163	CONFID.
750	2057	6	680.6088	CONFID.
751	2057	7	681.5407	CONDID.
752	2057	8	695.3395	CONFID.
753	2057	9	686.1251	CONFID.
754	2057	10	666.5528	CONFID.
755	2057	11	652.8064	CONFID.
756	2057	12	670.8821	CONFID.

**(REDACTED)**

**Volume 3, Exhibit D**

**LONG-TERM  
RETAIL AND WHOLESALE  
FORECAST MODELS PRICE DATA**

Indiana Michigan Power Company - Indiana  
Real Average Electric Prices

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit D  
PUBLIC REDACTED

Obs	Year	Month	Real Residential Electric Price - Indiana	Real Commercial Electric Price - Indiana	Real Industrial Electric Price - Indiana	Real Other Retail Electric Price - Indiana	Real Wholesale Electric Price -Indiana
1	1990	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
2	1990	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
3	1990	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
4	1990	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
5	1990	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
6	1990	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
7	1990	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
8	1990	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
9	1990	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
10	1990	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
11	1990	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
12	1990	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
13	1991	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
14	1991	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
15	1991	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
16	1991	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
17	1991	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
18	1991	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
19	1991	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
20	1991	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
21	1991	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
22	1991	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
23	1991	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
24	1991	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
25	1992	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
26	1992	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
27	1992	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
28	1992	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
29	1992	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
30	1992	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
31	1992	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
32	1992	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
33	1992	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
34	1992	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
35	1992	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
36	1992	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
37	1993	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
38	1993	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
39	1993	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
40	1993	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
41	1993	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
42	1993	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
43	1993	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
44	1993	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
45	1993	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
46	1993	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
47	1993	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

Indiana Michigan Power Company - Indiana  
Real Average Electric Prices

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit D  
PUBLIC REDACTED

Obs	Year	Month	Real Residential Electric Price - Indiana	Real Commercial Electric Price - Indiana	Real Industrial Electric Price - Indiana	Real Other Retail Electric Price - Indiana	Real Wholesale Electric Price -Indiana
48	1993	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
49	1994	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
50	1994	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
51	1994	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
52	1994	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
53	1994	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
54	1994	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
55	1994	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
56	1994	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
57	1994	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
58	1994	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
59	1994	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
60	1994	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
61	1995	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
62	1995	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
63	1995	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
64	1995	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
65	1995	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
66	1995	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
67	1995	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
68	1995	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
69	1995	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
70	1995	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
71	1995	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
72	1995	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
73	1996	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
74	1996	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
75	1996	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
76	1996	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
77	1996	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
78	1996	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
79	1996	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
80	1996	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
81	1996	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
82	1996	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
83	1996	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
84	1996	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
85	1997	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
86	1997	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
87	1997	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
88	1997	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
89	1997	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
90	1997	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
91	1997	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
92	1997	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
93	1997	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
94	1997	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Indiana	Real Commercial Electric Price - Indiana	Real Industrial Electric Price - Indiana	Real Other Retail Electric Price - Indiana	Real Wholesale Electric Price -Indiana
95	1997	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
96	1997	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
97	1998	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
98	1998	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
99	1998	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
100	1998	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
101	1998	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
102	1998	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
103	1998	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
104	1998	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
105	1998	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
106	1998	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
107	1998	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
108	1998	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
109	1999	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
110	1999	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
111	1999	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
112	1999	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
113	1999	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
114	1999	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
115	1999	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
116	1999	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
117	1999	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
118	1999	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
119	1999	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
120	1999	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
121	2000	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
122	2000	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
123	2000	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
124	2000	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
125	2000	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
126	2000	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
127	2000	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
128	2000	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
129	2000	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
130	2000	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
131	2000	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
132	2000	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
133	2001	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
134	2001	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
135	2001	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
136	2001	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
137	2001	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
138	2001	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
139	2001	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
140	2001	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
141	2001	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Indiana	Real Commercial Electric Price - Indiana	Real Industrial Electric Price - Indiana	Real Other Retail Electric Price - Indiana	Real Wholesale Electric Price -Indiana
142	2001	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
143	2001	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
144	2001	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
145	2002	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
146	2002	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
147	2002	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
148	2002	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
149	2002	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
150	2002	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
151	2002	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
152	2002	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
153	2002	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
154	2002	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
155	2002	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
156	2002	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
157	2003	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
158	2003	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
159	2003	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
160	2003	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
161	2003	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
162	2003	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
163	2003	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
164	2003	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
165	2003	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
166	2003	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
167	2003	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
168	2003	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
169	2004	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
170	2004	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
171	2004	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
172	2004	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
173	2004	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
174	2004	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
175	2004	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
176	2004	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
177	2004	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
178	2004	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
179	2004	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
180	2004	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
181	2005	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
182	2005	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
183	2005	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
184	2005	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
185	2005	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
186	2005	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
187	2005	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
188	2005	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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189	2005	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
190	2005	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
191	2005	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
192	2005	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
193	2006	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
194	2006	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
195	2006	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
196	2006	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
197	2006	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
198	2006	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
199	2006	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
200	2006	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
201	2006	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
202	2006	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
203	2006	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
204	2006	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
205	2007	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
206	2007	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
207	2007	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
208	2007	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
209	2007	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
210	2007	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
211	2007	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
212	2007	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
213	2007	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
214	2007	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
215	2007	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
216	2007	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
217	2008	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
218	2008	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
219	2008	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
220	2008	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
221	2008	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
222	2008	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
223	2008	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
224	2008	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
225	2008	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
226	2008	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
227	2008	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
228	2008	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
229	2009	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
230	2009	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
231	2009	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
232	2009	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
233	2009	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
234	2009	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
235	2009	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Indiana	Real Commercial Electric Price - Indiana	Real Industrial Electric Price - Indiana	Real Other Retail Electric Price - Indiana	Real Wholesale Electric Price -Indiana
236	2009	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
237	2009	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
238	2009	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
239	2009	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
240	2009	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
241	2010	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
242	2010	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
243	2010	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
244	2010	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
245	2010	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
246	2010	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
247	2010	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
248	2010	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
249	2010	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
250	2010	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
251	2010	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
252	2010	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
253	2011	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
254	2011	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
255	2011	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
256	2011	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
257	2011	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
258	2011	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
259	2011	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
260	2011	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
261	2011	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
262	2011	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
263	2011	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
264	2011	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
265	2012	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
266	2012	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
267	2012	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
268	2012	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
269	2012	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
270	2012	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
271	2012	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
272	2012	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
273	2012	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
274	2012	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
275	2012	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
276	2012	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
277	2013	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
278	2013	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
279	2013	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
280	2013	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
281	2013	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
282	2013	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL



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283	2013	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
284	2013	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
285	2013	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
286	2013	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
287	2013	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
288	2013	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
289	2014	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
290	2014	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
291	2014	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
292	2014	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
293	2014	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
294	2014	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
295	2014	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
296	2014	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
297	2014	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
298	2014	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
299	2014	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
300	2014	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
301	2015	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
302	2015	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
303	2015	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
304	2015	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
305	2015	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
306	2015	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
307	2015	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
308	2015	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
309	2015	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
310	2015	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
311	2015	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
312	2015	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
313	2016	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
314	2016	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
315	2016	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
316	2016	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
317	2016	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
318	2016	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
319	2016	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
320	2016	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
321	2016	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
322	2016	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
323	2016	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
324	2016	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
325	2017	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
326	2017	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
327	2017	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
328	2017	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
329	2017	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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330	2017	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
331	2017	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
332	2017	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
333	2017	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
334	2017	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
335	2017	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
336	2017	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
337	2018	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
338	2018	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
339	2018	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
340	2018	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
341	2018	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
342	2018	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
343	2018	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
344	2018	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
345	2018	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
346	2018	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
347	2018	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
348	2018	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
349	2019	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
350	2019	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
351	2019	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
352	2019	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
353	2019	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
354	2019	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
355	2019	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
356	2019	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
357	2019	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
358	2019	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
359	2019	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
360	2019	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
361	2020	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
362	2020	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
363	2020	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
364	2020	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
365	2020	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
366	2020	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
367	2020	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
368	2020	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
369	2020	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
370	2020	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
371	2020	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
372	2020	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
373	2021	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
374	2021	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
375	2021	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
376	2021	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Indiana	Real Commercial Electric Price - Indiana	Real Industrial Electric Price - Indiana	Real Other Retail Electric Price - Indiana	Real Wholesale Electric Price -Indiana
377	2021	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
378	2021	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
379	2021	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
380	2021	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
381	2021	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
382	2021	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
383	2021	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
384	2021	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
385	2022	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
386	2022	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
387	2022	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
388	2022	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
389	2022	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
390	2022	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
391	2022	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
392	2022	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
393	2022	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
394	2022	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
395	2022	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
396	2022	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
397	2023	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
398	2023	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
399	2023	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
400	2023	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
401	2023	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
402	2023	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
403	2023	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
404	2023	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
405	2023	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
406	2023	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
407	2023	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
408	2023	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
409	2024	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
410	2024	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
411	2024	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
412	2024	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
413	2024	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
414	2024	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
415	2024	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
416	2024	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
417	2024	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
418	2024	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
419	2024	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
420	2024	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
421	2025	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
422	2025	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
423	2025	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Indiana	Real Commercial Electric Price - Indiana	Real Industrial Electric Price - Indiana	Real Other Retail Electric Price - Indiana	Real Wholesale Electric Price -Indiana
424	2025	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
425	2025	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
426	2025	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
427	2025	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
428	2025	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
429	2025	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
430	2025	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
431	2025	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
432	2025	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
433	2026	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
434	2026	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
435	2026	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
436	2026	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
437	2026	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
438	2026	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
439	2026	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
440	2026	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
441	2026	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
442	2026	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
443	2026	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
444	2026	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
445	2027	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
446	2027	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
447	2027	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
448	2027	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
449	2027	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
450	2027	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
451	2027	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
452	2027	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
453	2027	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
454	2027	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
455	2027	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
456	2027	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
457	2028	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
458	2028	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
459	2028	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
460	2028	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
461	2028	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
462	2028	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
463	2028	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
464	2028	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
465	2028	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
466	2028	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
467	2028	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
468	2028	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
469	2029	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
470	2029	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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471	2029	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
472	2029	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
473	2029	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
474	2029	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
475	2029	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
476	2029	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
477	2029	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
478	2029	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
479	2029	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
480	2029	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
481	2030	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
482	2030	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
483	2030	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
484	2030	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
485	2030	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
486	2030	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
487	2030	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
488	2030	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
489	2030	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
490	2030	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
491	2030	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
492	2030	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
493	2031	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
494	2031	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
495	2031	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
496	2031	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
497	2031	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
498	2031	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
499	2031	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
500	2031	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
501	2031	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
502	2031	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
503	2031	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
504	2031	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
505	2032	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
506	2032	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
507	2032	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
508	2032	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
509	2032	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
510	2032	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
511	2032	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
512	2032	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
513	2032	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
514	2032	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
515	2032	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
516	2032	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
517	2033	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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518	2033	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
519	2033	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
520	2033	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
521	2033	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
522	2033	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
523	2033	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
524	2033	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
525	2033	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
526	2033	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
527	2033	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
528	2033	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
529	2034	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
530	2034	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
531	2034	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
532	2034	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
533	2034	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
534	2034	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
535	2034	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
536	2034	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
537	2034	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
538	2034	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
539	2034	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
540	2034	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
541	2035	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
542	2035	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
543	2035	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
544	2035	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
545	2035	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
546	2035	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
547	2035	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
548	2035	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
549	2035	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
550	2035	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
551	2035	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
552	2035	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
553	2036	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
554	2036	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
555	2036	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
556	2036	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
557	2036	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
558	2036	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
559	2036	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
560	2036	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
561	2036	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
562	2036	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
563	2036	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
564	2036	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Indiana	Real Commercial Electric Price - Indiana	Real Industrial Electric Price - Indiana	Real Other Retail Electric Price - Indiana	Real Wholesale Electric Price -Indiana
565	2037	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
566	2037	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
567	2037	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
568	2037	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
569	2037	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
570	2037	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
571	2037	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
572	2037	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
573	2037	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
574	2037	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
575	2037	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
576	2037	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
577	2038	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
578	2038	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
579	2038	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
580	2038	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
581	2038	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
582	2038	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
583	2038	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
584	2038	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
585	2038	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
586	2038	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
587	2038	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
588	2038	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
589	2039	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
590	2039	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
591	2039	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
592	2039	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
593	2039	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
594	2039	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
595	2039	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
596	2039	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
597	2039	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
598	2039	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
599	2039	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
600	2039	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
601	2040	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
602	2040	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
603	2040	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
604	2040	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
605	2040	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
606	2040	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
607	2040	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
608	2040	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
609	2040	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
610	2040	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
611	2040	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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612	2040	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
613	2041	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
614	2041	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
615	2041	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
616	2041	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
617	2041	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
618	2041	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
619	2041	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
620	2041	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
621	2041	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
622	2041	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
623	2041	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
624	2041	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
625	2042	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
626	2042	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
627	2042	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
628	2042	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
629	2042	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
630	2042	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
631	2042	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
632	2042	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
633	2042	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
634	2042	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
635	2042	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
636	2042	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
637	2043	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
638	2043	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
639	2043	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
640	2043	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
641	2043	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
642	2043	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
643	2043	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
644	2043	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
645	2043	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
646	2043	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
647	2043	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
648	2043	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
649	2044	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
650	2044	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
651	2044	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
652	2044	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
653	2044	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
654	2044	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
655	2044	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
656	2044	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
657	2044	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
658	2044	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL



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659	2044	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
660	2044	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
661	2045	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
662	2045	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
663	2045	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
664	2045	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
665	2045	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
666	2045	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
667	2045	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
668	2045	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
669	2045	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
670	2045	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
671	2045	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
672	2045	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
673	2046	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
674	2046	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
675	2046	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
676	2046	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
677	2046	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
678	2046	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
679	2046	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
680	2046	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
681	2046	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
682	2046	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
683	2046	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
684	2046	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
685	2047	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
686	2047	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
687	2047	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
688	2047	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
689	2047	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
690	2047	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
691	2047	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
692	2047	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
693	2047	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
694	2047	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
695	2047	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
696	2047	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
697	2048	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
698	2048	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
699	2048	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
700	2048	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
701	2048	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
702	2048	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
703	2048	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
704	2048	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
705	2048	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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706	2048	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
707	2048	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
708	2048	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
709	2049	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
710	2049	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
711	2049	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
712	2049	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
713	2049	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
714	2049	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
715	2049	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
716	2049	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
717	2049	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
718	2049	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
719	2049	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
720	2049	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
721	2050	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
722	2050	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
723	2050	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
724	2050	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
725	2050	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
726	2050	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
727	2050	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
728	2050	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
729	2050	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
730	2050	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
731	2050	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
732	2050	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
733	2051	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
734	2051	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
735	2051	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
736	2051	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
737	2051	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
738	2051	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
739	2051	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
740	2051	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
741	2051	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
742	2051	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
743	2051	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
744	2051	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
745	2052	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
746	2052	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
747	2052	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
748	2052	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
749	2052	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
750	2052	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
751	2052	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
752	2052	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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753	2052	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
754	2052	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
755	2052	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
756	2052	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
757	2053	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
758	2053	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
759	2053	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
760	2053	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
761	2053	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
762	2053	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
763	2053	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
764	2053	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
765	2053	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
766	2053	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
767	2053	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
768	2053	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
769	2054	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
770	2054	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
771	2054	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
772	2054	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
773	2054	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
774	2054	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
775	2054	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
776	2054	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
777	2054	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
778	2054	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
779	2054	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
780	2054	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
781	2055	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
782	2055	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
783	2055	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
784	2055	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
785	2055	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
786	2055	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
787	2055	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
788	2055	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
789	2055	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
790	2055	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
791	2055	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
792	2055	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
793	2056	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
794	2056	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
795	2056	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
796	2056	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
797	2056	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
798	2056	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
799	2056	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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800	2056	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
801	2056	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
802	2056	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
803	2056	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
804	2056	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
805	2057	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
806	2057	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
807	2057	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
808	2057	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
809	2057	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
810	2057	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
811	2057	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
812	2057	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
813	2057	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
814	2057	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
815	2057	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
816	2057	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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1	1990	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
2	1990	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
3	1990	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
4	1990	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
5	1990	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
6	1990	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
7	1990	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
8	1990	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
9	1990	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
10	1990	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
11	1990	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
12	1990	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
13	1991	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
14	1991	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
15	1991	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
16	1991	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
17	1991	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
18	1991	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
19	1991	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
20	1991	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
21	1991	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
22	1991	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
23	1991	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
24	1991	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
25	1992	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
26	1992	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
27	1992	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
28	1992	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
29	1992	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
30	1992	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
31	1992	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
32	1992	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
33	1992	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
34	1992	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
35	1992	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
36	1992	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
37	1993	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
38	1993	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
39	1993	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
40	1993	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
41	1993	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
42	1993	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
43	1993	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
44	1993	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
45	1993	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
46	1993	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
47	1993	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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48	1993	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
49	1994	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
50	1994	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
51	1994	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
52	1994	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
53	1994	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
54	1994	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
55	1994	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
56	1994	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
57	1994	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
58	1994	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
59	1994	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
60	1994	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
61	1995	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
62	1995	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
63	1995	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
64	1995	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
65	1995	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
66	1995	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
67	1995	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
68	1995	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
69	1995	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
70	1995	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
71	1995	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
72	1995	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
73	1996	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
74	1996	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
75	1996	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
76	1996	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
77	1996	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
78	1996	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
79	1996	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
80	1996	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
81	1996	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
82	1996	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
83	1996	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
84	1996	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
85	1997	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
86	1997	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
87	1997	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
88	1997	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
89	1997	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
90	1997	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
91	1997	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
92	1997	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
93	1997	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
94	1997	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Michigan	Real Commercial Electric Price - Michigan	Real Industrial Electric Price - Michigan	Real Other Retail Electric Price - Michigan	Real Wholesale Electric Price -Michigan
95	1997	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
96	1997	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
97	1998	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
98	1998	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
99	1998	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
100	1998	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
101	1998	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
102	1998	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
103	1998	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
104	1998	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
105	1998	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
106	1998	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
107	1998	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
108	1998	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
109	1999	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
110	1999	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
111	1999	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
112	1999	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
113	1999	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
114	1999	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
115	1999	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
116	1999	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
117	1999	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
118	1999	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
119	1999	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
120	1999	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
121	2000	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
122	2000	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
123	2000	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
124	2000	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
125	2000	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
126	2000	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
127	2000	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
128	2000	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
129	2000	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
130	2000	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
131	2000	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
132	2000	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
133	2001	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
134	2001	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
135	2001	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
136	2001	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
137	2001	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
138	2001	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
139	2001	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
140	2001	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
141	2001	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Michigan	Real Commercial Electric Price - Michigan	Real Industrial Electric Price - Michigan	Real Other Retail Electric Price - Michigan	Real Wholesale Electric Price -Michigan
142	2001	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
143	2001	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
144	2001	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
145	2002	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
146	2002	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
147	2002	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
148	2002	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
149	2002	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
150	2002	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
151	2002	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
152	2002	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
153	2002	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
154	2002	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
155	2002	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
156	2002	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
157	2003	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
158	2003	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
159	2003	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
160	2003	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
161	2003	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
162	2003	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
163	2003	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
164	2003	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
165	2003	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
166	2003	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
167	2003	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
168	2003	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
169	2004	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
170	2004	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
171	2004	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
172	2004	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
173	2004	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
174	2004	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
175	2004	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
176	2004	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
177	2004	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
178	2004	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
179	2004	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
180	2004	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
181	2005	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
182	2005	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
183	2005	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
184	2005	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
185	2005	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
186	2005	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
187	2005	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
188	2005	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL



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189	2005	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
190	2005	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
191	2005	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
192	2005	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
193	2006	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
194	2006	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
195	2006	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
196	2006	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
197	2006	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
198	2006	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
199	2006	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
200	2006	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
201	2006	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
202	2006	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
203	2006	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
204	2006	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
205	2007	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
206	2007	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
207	2007	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
208	2007	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
209	2007	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
210	2007	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
211	2007	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
212	2007	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
213	2007	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
214	2007	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
215	2007	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
216	2007	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
217	2008	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
218	2008	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
219	2008	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
220	2008	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
221	2008	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
222	2008	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
223	2008	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
224	2008	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
225	2008	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
226	2008	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
227	2008	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
228	2008	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
229	2009	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
230	2009	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
231	2009	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
232	2009	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
233	2009	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
234	2009	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
235	2009	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Michigan	Real Commercial Electric Price - Michigan	Real Industrial Electric Price - Michigan	Real Other Retail Electric Price - Michigan	Real Wholesale Electric Price -Michigan
236	2009	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
237	2009	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
238	2009	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
239	2009	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
240	2009	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
241	2010	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
242	2010	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
243	2010	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
244	2010	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
245	2010	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
246	2010	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
247	2010	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
248	2010	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
249	2010	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
250	2010	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
251	2010	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
252	2010	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
253	2011	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
254	2011	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
255	2011	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
256	2011	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
257	2011	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
258	2011	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
259	2011	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
260	2011	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
261	2011	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
262	2011	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
263	2011	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
264	2011	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
265	2012	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
266	2012	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
267	2012	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
268	2012	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
269	2012	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
270	2012	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
271	2012	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
272	2012	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
273	2012	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
274	2012	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
275	2012	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
276	2012	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
277	2013	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
278	2013	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
279	2013	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
280	2013	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
281	2013	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
282	2013	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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283	2013	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
284	2013	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
285	2013	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
286	2013	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
287	2013	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
288	2013	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
289	2014	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
290	2014	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
291	2014	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
292	2014	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
293	2014	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
294	2014	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
295	2014	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
296	2014	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
297	2014	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
298	2014	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
299	2014	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
300	2014	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
301	2015	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
302	2015	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
303	2015	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
304	2015	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
305	2015	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
306	2015	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
307	2015	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
308	2015	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
309	2015	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
310	2015	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
311	2015	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
312	2015	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
313	2016	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
314	2016	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
315	2016	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
316	2016	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
317	2016	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
318	2016	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
319	2016	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
320	2016	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
321	2016	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
322	2016	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
323	2016	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
324	2016	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
325	2017	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
326	2017	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
327	2017	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
328	2017	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
329	2017	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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330	2017	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
331	2017	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
332	2017	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
333	2017	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
334	2017	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
335	2017	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
336	2017	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
337	2018	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
338	2018	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
339	2018	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
340	2018	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
341	2018	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
342	2018	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
343	2018	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
344	2018	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
345	2018	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
346	2018	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
347	2018	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
348	2018	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
349	2019	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
350	2019	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
351	2019	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
352	2019	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
353	2019	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
354	2019	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
355	2019	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
356	2019	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
357	2019	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
358	2019	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
359	2019	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
360	2019	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
361	2020	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
362	2020	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
363	2020	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
364	2020	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
365	2020	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
366	2020	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
367	2020	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
368	2020	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
369	2020	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
370	2020	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
371	2020	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
372	2020	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
373	2021	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
374	2021	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
375	2021	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
376	2021	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Michigan	Real Commercial Electric Price - Michigan	Real Industrial Electric Price - Michigan	Real Other Retail Electric Price - Michigan	Real Wholesale Electric Price -Michigan
377	2021	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
378	2021	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
379	2021	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
380	2021	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
381	2021	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
382	2021	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
383	2021	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
384	2021	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
385	2022	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
386	2022	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
387	2022	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
388	2022	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
389	2022	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
390	2022	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
391	2022	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
392	2022	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
393	2022	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
394	2022	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
395	2022	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
396	2022	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
397	2023	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
398	2023	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
399	2023	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
400	2023	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
401	2023	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
402	2023	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
403	2023	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
404	2023	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
405	2023	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
406	2023	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
407	2023	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
408	2023	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
409	2024	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
410	2024	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
411	2024	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
412	2024	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
413	2024	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
414	2024	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
415	2024	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
416	2024	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
417	2024	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
418	2024	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
419	2024	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
420	2024	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
421	2025	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
422	2025	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
423	2025	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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Obs	Year	Month	Real Residential Electric Price - Michigan	Real Commercial Electric Price - Michigan	Real Industrial Electric Price - Michigan	Real Other Retail Electric Price - Michigan	Real Wholesale Electric Price -Michigan
424	2025	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
425	2025	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
426	2025	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
427	2025	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
428	2025	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
429	2025	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
430	2025	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
431	2025	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
432	2025	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
433	2026	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
434	2026	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
435	2026	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
436	2026	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
437	2026	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
438	2026	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
439	2026	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
440	2026	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
441	2026	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
442	2026	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
443	2026	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
444	2026	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
445	2027	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
446	2027	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
447	2027	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
448	2027	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
449	2027	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
450	2027	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
451	2027	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
452	2027	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
453	2027	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
454	2027	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
455	2027	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
456	2027	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
457	2028	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
458	2028	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
459	2028	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
460	2028	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
461	2028	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
462	2028	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
463	2028	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
464	2028	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
465	2028	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
466	2028	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
467	2028	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
468	2028	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
469	2029	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
470	2029	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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471	2029	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
472	2029	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
473	2029	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
474	2029	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
475	2029	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
476	2029	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
477	2029	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
478	2029	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
479	2029	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
480	2029	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
481	2030	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
482	2030	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
483	2030	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
484	2030	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
485	2030	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
486	2030	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
487	2030	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
488	2030	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
489	2030	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
490	2030	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
491	2030	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
492	2030	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
493	2031	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
494	2031	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
495	2031	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
496	2031	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
497	2031	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
498	2031	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
499	2031	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
500	2031	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
501	2031	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
502	2031	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
503	2031	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
504	2031	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
505	2032	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
506	2032	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
507	2032	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
508	2032	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
509	2032	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
510	2032	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
511	2032	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
512	2032	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
513	2032	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
514	2032	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
515	2032	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
516	2032	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
517	2033	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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518	2033	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
519	2033	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
520	2033	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
521	2033	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
522	2033	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
523	2033	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
524	2033	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
525	2033	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
526	2033	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
527	2033	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
528	2033	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
529	2034	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
530	2034	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
531	2034	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
532	2034	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
533	2034	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
534	2034	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
535	2034	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
536	2034	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
537	2034	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
538	2034	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
539	2034	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
540	2034	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
541	2035	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
542	2035	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
543	2035	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
544	2035	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
545	2035	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
546	2035	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
547	2035	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
548	2035	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
549	2035	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
550	2035	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
551	2035	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
552	2035	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
553	2036	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
554	2036	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
555	2036	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
556	2036	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
557	2036	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
558	2036	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
559	2036	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
560	2036	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
561	2036	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
562	2036	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
563	2036	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
564	2036	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL



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565	2037	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
566	2037	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
567	2037	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
568	2037	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
569	2037	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
570	2037	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
571	2037	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
572	2037	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
573	2037	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
574	2037	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
575	2037	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
576	2037	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
577	2038	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
578	2038	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
579	2038	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
580	2038	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
581	2038	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
582	2038	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
583	2038	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
584	2038	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
585	2038	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
586	2038	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
587	2038	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
588	2038	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
589	2039	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
590	2039	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
591	2039	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
592	2039	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
593	2039	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
594	2039	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
595	2039	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
596	2039	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
597	2039	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
598	2039	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
599	2039	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
600	2039	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
601	2040	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
602	2040	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
603	2040	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
604	2040	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
605	2040	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
606	2040	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
607	2040	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
608	2040	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
609	2040	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
610	2040	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
611	2040	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

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612	2040	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
613	2041	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
614	2041	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
615	2041	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
616	2041	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
617	2041	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
618	2041	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
619	2041	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
620	2041	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
621	2041	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
622	2041	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
623	2041	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
624	2041	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
625	2042	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
626	2042	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
627	2042	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
628	2042	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
629	2042	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
630	2042	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
631	2042	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
632	2042	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
633	2042	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
634	2042	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
635	2042	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
636	2042	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
637	2043	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
638	2043	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
639	2043	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
640	2043	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
641	2043	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
642	2043	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
643	2043	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
644	2043	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
645	2043	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
646	2043	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
647	2043	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
648	2043	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
649	2044	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
650	2044	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
651	2044	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
652	2044	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
653	2044	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
654	2044	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
655	2044	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
656	2044	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
657	2044	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
658	2044	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

Indiana Michigan Power Company - Michigan  
Real Average Electric Prices

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit D  
PUBLIC REDACTED

Obs	Year	Month	Real Residential Electric Price - Michigan	Real Commercial Electric Price - Michigan	Real Industrial Electric Price - Michigan	Real Other Retail Electric Price - Michigan	Real Wholesale Electric Price -Michigan
659	2044	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
660	2044	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
661	2045	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
662	2045	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
663	2045	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
664	2045	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
665	2045	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
666	2045	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
667	2045	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
668	2045	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
669	2045	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
670	2045	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
671	2045	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
672	2045	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
673	2046	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
674	2046	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
675	2046	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
676	2046	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
677	2046	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
678	2046	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
679	2046	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
680	2046	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
681	2046	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
682	2046	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
683	2046	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
684	2046	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
685	2047	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
686	2047	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
687	2047	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
688	2047	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
689	2047	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
690	2047	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
691	2047	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
692	2047	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
693	2047	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
694	2047	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
695	2047	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
696	2047	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
697	2048	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
698	2048	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
699	2048	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
700	2048	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
701	2048	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
702	2048	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
703	2048	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
704	2048	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
705	2048	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

Indiana Michigan Power Company - Michigan  
Real Average Electric Prices

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit D  
PUBLIC REDACTED

Obs	Year	Month	Real Residential Electric Price - Michigan	Real Commercial Electric Price - Michigan	Real Industrial Electric Price - Michigan	Real Other Retail Electric Price - Michigan	Real Wholesale Electric Price -Michigan
706	2048	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
707	2048	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
708	2048	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
709	2049	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
710	2049	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
711	2049	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
712	2049	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
713	2049	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
714	2049	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
715	2049	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
716	2049	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
717	2049	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
718	2049	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
719	2049	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
720	2049	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
721	2050	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
722	2050	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
723	2050	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
724	2050	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
725	2050	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
726	2050	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
727	2050	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
728	2050	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
729	2050	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
730	2050	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
731	2050	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
732	2050	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
733	2051	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
734	2051	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
735	2051	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
736	2051	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
737	2051	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
738	2051	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
739	2051	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
740	2051	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
741	2051	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
742	2051	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
743	2051	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
744	2051	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
745	2052	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
746	2052	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
747	2052	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
748	2052	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
749	2052	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
750	2052	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
751	2052	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
752	2052	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

Indiana Michigan Power Company - Michigan  
Real Average Electric Prices

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit D  
PUBLIC REDACTED

Obs	Year	Month	Real Residential Electric Price - Michigan	Real Commercial Electric Price - Michigan	Real Industrial Electric Price - Michigan	Real Other Retail Electric Price - Michigan	Real Wholesale Electric Price -Michigan
753	2052	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
754	2052	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
755	2052	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
756	2052	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
757	2053	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
758	2053	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
759	2053	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
760	2053	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
761	2053	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
762	2053	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
763	2053	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
764	2053	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
765	2053	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
766	2053	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
767	2053	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
768	2053	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
769	2054	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
770	2054	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
771	2054	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
772	2054	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
773	2054	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
774	2054	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
775	2054	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
776	2054	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
777	2054	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
778	2054	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
779	2054	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
780	2054	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
781	2055	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
782	2055	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
783	2055	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
784	2055	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
785	2055	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
786	2055	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
787	2055	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
788	2055	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
789	2055	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
790	2055	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
791	2055	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
792	2055	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
793	2056	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
794	2056	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
795	2056	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
796	2056	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
797	2056	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
798	2056	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
799	2056	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

Indiana Michigan Power Company - Michigan  
Real Average Electric Prices

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit D  
PUBLIC REDACTED

Obs	Year	Month	Real Residential Electric Price - Michigan	Real Commercial Electric Price - Michigan	Real Industrial Electric Price - Michigan	Real Other Retail Electric Price - Michigan	Real Wholesale Electric Price -Michigan
800	2056	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
801	2056	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
802	2056	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
803	2056	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
804	2056	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
805	2057	1	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
806	2057	2	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
807	2057	3	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
808	2057	4	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
809	2057	5	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
810	2057	6	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
811	2057	7	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
812	2057	8	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
813	2057	9	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
814	2057	10	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
815	2057	11	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL
816	2057	12	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL	CONFIDENTIAL

**(REDACTED)**

**Volume 3, Exhibit E**  
**WHOLESALE ENERGY MODELS**

Indiana Michigan Power Company  
City of Auburn  
Endogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

The MEANS Procedure

Variable	Label	Mean
YEAR	Year	2029.50
MONTH	Month	6.500000



Indiana Michigan Power Company  
City of Auburn  
Endogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

YEAR	MONTH	Energy
2002	1	CONFID.
2002	2	CONFID.
2002	3	CONFID.
2002	4	CONFID.
2002	5	CONFID.
2002	6	CONFID.
2002	7	CONDID.
2002	8	CONFID.
2002	9	CONFID.
2002	10	CONFID.
2002	11	CONFID.
2002	12	CONFID.
2003	1	CONFID.
2003	2	CONFID.
2003	3	CONFID.
2003	4	CONFID.
2003	5	CONFID.
2003	6	CONFID.
2003	7	CONDID.
2003	8	CONFID.
2003	9	CONFID.
2003	10	CONFID.
2003	11	CONFID.
2003	12	CONFID.
2004	1	CONFID.
2004	2	CONFID.
2004	3	CONFID.
2004	4	CONFID.
2004	5	CONFID.
2004	6	CONFID.
2004	7	CONDID.
2004	8	CONFID.
2004	9	CONFID.
2004	10	CONFID.
2004	11	CONFID.
2004	12	CONFID.
2005	1	CONFID.
2005	2	CONFID.
2005	3	CONFID.
2005	4	CONFID.
2005	5	CONFID.
2005	6	CONFID.
2005	7	CONDID.
2005	8	CONFID.
2005	9	CONFID.
2005	10	CONFID.
2005	11	CONFID.
2005	12	CONFID.
2006	1	CONFID.
2006	2	CONFID.

Indiana Michigan Power Company  
City of Auburn  
Endogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

YEAR	MONTH	Energy
2006	3	CONFID.
2006	4	CONFID.
2006	5	CONFID.
2006	6	CONFID.
2006	7	CONDID.
2006	8	CONFID.
2006	9	CONFID.
2006	10	CONFID.
2006	11	CONFID.
2006	12	CONFID.
2007	1	CONFID.
2007	2	CONFID.
2007	3	CONFID.
2007	4	CONFID.
2007	5	CONFID.
2007	6	CONFID.
2007	7	CONDID.
2007	8	CONFID.
2007	9	CONFID.
2007	10	CONFID.
2007	11	CONFID.
2007	12	CONFID.
2008	1	CONFID.
2008	2	CONFID.
2008	3	CONFID.
2008	4	CONFID.
2008	5	CONFID.
2008	6	CONFID.
2008	7	CONDID.
2008	8	CONFID.
2008	9	CONFID.
2008	10	CONFID.
2008	11	CONFID.
2008	12	CONFID.
2009	1	CONFID.
2009	2	CONFID.
2009	3	CONFID.
2009	4	CONFID.
2009	5	CONFID.
2009	6	CONFID.
2009	7	CONDID.
2009	8	CONFID.
2009	9	CONFID.
2009	10	CONFID.
2009	11	CONFID.
2009	12	CONFID.
2010	1	CONFID.
2010	2	CONFID.
2010	3	CONFID.
2010	4	CONFID.

Indiana Michigan Power Company  
City of Auburn  
Endogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

YEAR	MONTH	Energy
2010	5	CONFID.
2010	6	CONFID.
2010	7	CONDID.
2010	8	CONFID.
2010	9	CONFID.
2010	10	CONFID.
2010	11	CONFID.
2010	12	CONFID.
2011	1	CONFID.
2011	2	CONFID.
2011	3	CONFID.
2011	4	CONFID.
2011	5	CONFID.
2011	6	CONFID.
2011	7	CONDID.
2011	8	CONFID.
2011	9	CONFID.
2011	10	CONFID.
2011	11	CONFID.
2011	12	CONFID.
2012	1	CONFID.
2012	2	CONFID.
2012	3	CONFID.
2012	4	CONFID.
2012	5	CONFID.
2012	6	CONFID.
2012	7	CONDID.
2012	8	CONFID.
2012	9	CONFID.
2012	10	CONFID.
2012	11	CONFID.
2012	12	CONFID.
2013	1	CONFID.
2013	2	CONFID.
2013	3	CONFID.
2013	4	CONFID.
2013	5	CONFID.
2013	6	CONFID.
2013	7	CONDID.
2013	8	CONFID.
2013	9	CONFID.
2013	10	CONFID.
2013	11	CONFID.
2013	12	CONFID.
2014	1	CONFID.
2014	2	CONFID.
2014	3	CONFID.
2014	4	CONFID.
2014	5	CONFID.
2014	6	CONFID.

Indiana Michigan Power Company  
City of Auburn  
Endogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

YEAR	MONTH	Energy
2014	7	CONDID.
2014	8	CONFID.
2014	9	CONFID.
2014	10	CONFID.
2014	11	CONFID.
2014	12	CONFID.
2015	1	CONFID.
2015	2	CONFID.
2015	3	CONFID.
2015	4	CONFID.
2015	5	CONFID.
2015	6	CONFID.
2015	7	CONDID.
2015	8	CONFID.
2015	9	CONFID.
2015	10	CONFID.
2015	11	CONFID.
2015	12	CONFID.
2016	1	CONFID.
2016	2	CONFID.
2016	3	CONFID.
2016	4	CONFID.
2016	5	CONFID.
2016	6	CONFID.
2016	7	CONDID.
2016	8	CONFID.
2016	9	CONFID.
2016	10	CONFID.
2016	11	CONFID.
2016	12	CONFID.
2017	1	CONFID.
2017	2	CONFID.
2017	3	CONFID.
2017	4	CONFID.
2017	5	CONFID.
2017	6	CONFID.
2017	7	CONDID.
2017	8	CONFID.
2017	9	CONFID.
2017	10	CONFID.
2017	11	CONFID.
2017	12	CONFID.
2018	1	CONFID.
2018	2	CONFID.
2018	3	CONFID.
2018	4	CONFID.
2018	5	CONFID.
2018	6	CONFID.
2018	7	CONDID.
2018	8	CONFID.

Indiana Michigan Power Company  
City of Auburn  
Endogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

YEAR	MONTH	Energy
2018	9	CONFID.
2018	10	CONFID.
2018	11	CONFID.
2018	12	CONFID.
2019	1	CONFID.
2019	2	CONFID.
2019	3	CONFID.
2019	4	CONFID.
2019	5	CONFID.
2019	6	CONFID.
2019	7	CONDID.
2019	8	CONFID.
2019	9	CONFID.
2019	10	CONFID.
2019	11	CONFID.
2019	12	CONFID.
2020	1	CONFID.
2020	2	CONFID.
2020	3	CONFID.
2020	4	CONFID.
2020	5	CONFID.
2020	6	CONFID.
2020	7	CONDID.
2020	8	CONFID.
2020	9	CONFID.
2020	10	CONFID.
2020	11	CONFID.
2020	12	CONFID.
2021	1	CONFID.
2021	2	CONFID.
2021	3	CONFID.
2021	4	CONFID.
2021	5	CONFID.
2021	6	CONFID.
2021	7	CONDID.
2021	8	CONFID.
2021	9	CONFID.
2021	10	CONFID.
2021	11	CONFID.
2021	12	CONFID.
2022	1	CONFID.
2022	2	CONFID.
2022	3	CONFID.
2022	4	CONFID.
2022	5	CONFID.
2022	6	CONFID.
2022	7	CONDID.
2022	8	CONFID.
2022	9	CONFID.
2022	10	CONFID.

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YEAR	MONTH	Energy
2022	11	CONFID.
2022	12	CONFID.
2023	1	CONFID.
2023	2	CONFID.
2023	3	CONFID.
2023	4	CONFID.
2023	5	CONFID.
2023	6	CONFID.
2023	7	CONDID.
2023	8	CONFID.
2023	9	CONFID.
2023	10	CONFID.
2023	11	CONFID.
2023	12	CONFID.
2024	1	CONFID.
2024	2	CONFID.
2024	3	CONFID.
2024	4	CONFID.
2024	5	CONFID.
2024	6	CONFID.
2024	7	CONDID.
2024	8	CONFID.
2024	9	CONFID.
2024	10	CONFID.
2024	11	CONFID.
2024	12	CONFID.
2025	1	CONFID.
2025	2	CONFID.
2025	3	CONFID.
2025	4	CONFID.
2025	5	CONFID.
2025	6	CONFID.
2025	7	CONDID.
2025	8	CONFID.
2025	9	CONFID.
2025	10	CONFID.
2025	11	CONFID.
2025	12	CONFID.
2026	1	CONFID.
2026	2	CONFID.
2026	3	CONFID.
2026	4	CONFID.
2026	5	CONFID.
2026	6	CONFID.
2026	7	CONDID.
2026	8	CONFID.
2026	9	CONFID.
2026	10	CONFID.
2026	11	CONFID.
2026	12	CONFID.

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YEAR	MONTH	Energy
2027	1	CONFID.
2027	2	CONFID.
2027	3	CONFID.
2027	4	CONFID.
2027	5	CONFID.
2027	6	CONFID.
2027	7	CONDID.
2027	8	CONFID.
2027	9	CONFID.
2027	10	CONFID.
2027	11	CONFID.
2027	12	CONFID.
2028	1	CONFID.
2028	2	CONFID.
2028	3	CONFID.
2028	4	CONFID.
2028	5	CONFID.
2028	6	CONFID.
2028	7	CONDID.
2028	8	CONFID.
2028	9	CONFID.
2028	10	CONFID.
2028	11	CONFID.
2028	12	CONFID.
2029	1	CONFID.
2029	2	CONFID.
2029	3	CONFID.
2029	4	CONFID.
2029	5	CONFID.
2029	6	CONFID.
2029	7	CONDID.
2029	8	CONFID.
2029	9	CONFID.
2029	10	CONFID.
2029	11	CONFID.
2029	12	CONFID.
2030	1	CONFID.
2030	2	CONFID.
2030	3	CONFID.
2030	4	CONFID.
2030	5	CONFID.
2030	6	CONFID.
2030	7	CONDID.
2030	8	CONFID.
2030	9	CONFID.
2030	10	CONFID.
2030	11	CONFID.
2030	12	CONFID.
2031	1	CONFID.
2031	2	CONFID.

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YEAR	MONTH	Energy
2031	3	CONFID.
2031	4	CONFID.
2031	5	CONFID.
2031	6	CONFID.
2031	7	CONDID.
2031	8	CONFID.
2031	9	CONFID.
2031	10	CONFID.
2031	11	CONFID.
2031	12	CONFID.
2032	1	CONFID.
2032	2	CONFID.
2032	3	CONFID.
2032	4	CONFID.
2032	5	CONFID.
2032	6	CONFID.
2032	7	CONDID.
2032	8	CONFID.
2032	9	CONFID.
2032	10	CONFID.
2032	11	CONFID.
2032	12	CONFID.
2033	1	CONFID.
2033	2	CONFID.
2033	3	CONFID.
2033	4	CONFID.
2033	5	CONFID.
2033	6	CONFID.
2033	7	CONDID.
2033	8	CONFID.
2033	9	CONFID.
2033	10	CONFID.
2033	11	CONFID.
2033	12	CONFID.
2034	1	CONFID.
2034	2	CONFID.
2034	3	CONFID.
2034	4	CONFID.
2034	5	CONFID.
2034	6	CONFID.
2034	7	CONDID.
2034	8	CONFID.
2034	9	CONFID.
2034	10	CONFID.
2034	11	CONFID.
2034	12	CONFID.
2035	1	CONFID.
2035	2	CONFID.
2035	3	CONFID.
2035	4	CONFID.



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YEAR	MONTH	Energy
2035	5	CONFID.
2035	6	CONFID.
2035	7	CONDID.
2035	8	CONFID.
2035	9	CONFID.
2035	10	CONFID.
2035	11	CONFID.
2035	12	CONFID.
2036	1	CONFID.
2036	2	CONFID.
2036	3	CONFID.
2036	4	CONFID.
2036	5	CONFID.
2036	6	CONFID.
2036	7	CONDID.
2036	8	CONFID.
2036	9	CONFID.
2036	10	CONFID.
2036	11	CONFID.
2036	12	CONFID.
2037	1	CONFID.
2037	2	CONFID.
2037	3	CONFID.
2037	4	CONFID.
2037	5	CONFID.
2037	6	CONFID.
2037	7	CONDID.
2037	8	CONFID.
2037	9	CONFID.
2037	10	CONFID.
2037	11	CONFID.
2037	12	CONFID.
2038	1	CONFID.
2038	2	CONFID.
2038	3	CONFID.
2038	4	CONFID.
2038	5	CONFID.
2038	6	CONFID.
2038	7	CONDID.
2038	8	CONFID.
2038	9	CONFID.
2038	10	CONFID.
2038	11	CONFID.
2038	12	CONFID.
2039	1	CONFID.
2039	2	CONFID.
2039	3	CONFID.
2039	4	CONFID.
2039	5	CONFID.
2039	6	CONFID.

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YEAR	MONTH	Energy
2039	7	CONDID.
2039	8	CONFID.
2039	9	CONFID.
2039	10	CONFID.
2039	11	CONFID.
2039	12	CONFID.
2040	1	CONFID.
2040	2	CONFID.
2040	3	CONFID.
2040	4	CONFID.
2040	5	CONFID.
2040	6	CONFID.
2040	7	CONDID.
2040	8	CONFID.
2040	9	CONFID.
2040	10	CONFID.
2040	11	CONFID.
2040	12	CONFID.
2041	1	CONFID.
2041	2	CONFID.
2041	3	CONFID.
2041	4	CONFID.
2041	5	CONFID.
2041	6	CONFID.
2041	7	CONDID.
2041	8	CONFID.
2041	9	CONFID.
2041	10	CONFID.
2041	11	CONFID.
2041	12	CONFID.
2042	1	CONFID.
2042	2	CONFID.
2042	3	CONFID.
2042	4	CONFID.
2042	5	CONFID.
2042	6	CONFID.
2042	7	CONDID.
2042	8	CONFID.
2042	9	CONFID.
2042	10	CONFID.
2042	11	CONFID.
2042	12	CONFID.
2043	1	CONFID.
2043	2	CONFID.
2043	3	CONFID.
2043	4	CONFID.
2043	5	CONFID.
2043	6	CONFID.
2043	7	CONDID.
2043	8	CONFID.

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YEAR	MONTH	Energy
2043	9	CONFID.
2043	10	CONFID.
2043	11	CONFID.
2043	12	CONFID.
2044	1	CONFID.
2044	2	CONFID.
2044	3	CONFID.
2044	4	CONFID.
2044	5	CONFID.
2044	6	CONFID.
2044	7	CONDID.
2044	8	CONFID.
2044	9	CONFID.
2044	10	CONFID.
2044	11	CONFID.
2044	12	CONFID.
2045	1	CONFID.
2045	2	CONFID.
2045	3	CONFID.
2045	4	CONFID.
2045	5	CONFID.
2045	6	CONFID.
2045	7	CONDID.
2045	8	CONFID.
2045	9	CONFID.
2045	10	CONFID.
2045	11	CONFID.
2045	12	CONFID.
2046	1	CONFID.
2046	2	CONFID.
2046	3	CONFID.
2046	4	CONFID.
2046	5	CONFID.
2046	6	CONFID.
2046	7	CONDID.
2046	8	CONFID.
2046	9	CONFID.
2046	10	CONFID.
2046	11	CONFID.
2046	12	CONFID.
2047	1	CONFID.
2047	2	CONFID.
2047	3	CONFID.
2047	4	CONFID.
2047	5	CONFID.
2047	6	CONFID.
2047	7	CONDID.
2047	8	CONFID.
2047	9	CONFID.
2047	10	CONFID.

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YEAR	MONTH	Energy
2047	11	CONFID.
2047	12	CONFID.
2048	1	CONFID.
2048	2	CONFID.
2048	3	CONFID.
2048	4	CONFID.
2048	5	CONFID.
2048	6	CONFID.
2048	7	CONDID.
2048	8	CONFID.
2048	9	CONFID.
2048	10	CONFID.
2048	11	CONFID.
2048	12	CONFID.
2049	1	CONFID.
2049	2	CONFID.
2049	3	CONFID.
2049	4	CONFID.
2049	5	CONFID.
2049	6	CONFID.
2049	7	CONDID.
2049	8	CONFID.
2049	9	CONFID.
2049	10	CONFID.
2049	11	CONFID.
2049	12	CONFID.
2050	1	CONFID.
2050	2	CONFID.
2050	3	CONFID.
2050	4	CONFID.
2050	5	CONFID.
2050	6	CONFID.
2050	7	CONDID.
2050	8	CONFID.
2050	9	CONFID.
2050	10	CONFID.
2050	11	CONFID.
2050	12	CONFID.
2051	1	CONFID.
2051	2	CONFID.
2051	3	CONFID.
2051	4	CONFID.
2051	5	CONFID.
2051	6	CONFID.
2051	7	CONDID.
2051	8	CONFID.
2051	9	CONFID.
2051	10	CONFID.
2051	11	CONFID.
2051	12	CONFID.

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YEAR	MONTH	Energy
2052	1	CONFID.
2052	2	CONFID.
2052	3	CONFID.
2052	4	CONFID.
2052	5	CONFID.
2052	6	CONFID.
2052	7	CONDID.
2052	8	CONFID.
2052	9	CONFID.
2052	10	CONFID.
2052	11	CONFID.
2052	12	CONFID.
2053	1	CONFID.
2053	2	CONFID.
2053	3	CONFID.
2053	4	CONFID.
2053	5	CONFID.
2053	6	CONFID.
2053	7	CONDID.
2053	8	CONFID.
2053	9	CONFID.
2053	10	CONFID.
2053	11	CONFID.
2053	12	CONFID.
2054	1	CONFID.
2054	2	CONFID.
2054	3	CONFID.
2054	4	CONFID.
2054	5	CONFID.
2054	6	CONFID.
2054	7	CONDID.
2054	8	CONFID.
2054	9	CONFID.
2054	10	CONFID.
2054	11	CONFID.
2054	12	CONFID.
2055	1	CONFID.
2055	2	CONFID.
2055	3	CONFID.
2055	4	CONFID.
2055	5	CONFID.
2055	6	CONFID.
2055	7	CONDID.
2055	8	CONFID.
2055	9	CONFID.
2055	10	CONFID.
2055	11	CONFID.
2055	12	CONFID.
2056	1	CONFID.
2056	2	CONFID.

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YEAR	MONTH	Energy
2056	3	CONFID.
2056	4	CONFID.
2056	5	CONFID.
2056	6	CONFID.
2056	7	CONDID.
2056	8	CONFID.
2056	9	CONFID.
2056	10	CONFID.
2056	11	CONFID.
2056	12	CONFID.
2057	1	CONFID.
2057	2	CONFID.
2057	3	CONFID.
2057	4	CONFID.
2057	5	CONFID.
2057	6	CONFID.
2057	7	CONDID.
2057	8	CONFID.
2057	9	CONFID.
2057	10	CONFID.
2057	11	CONFID.
2057	12	CONFID.

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The MEANS Procedure

Variable	Label	Mean
YEAR	Year	2029.50
MONTH	Month	6.5000000
bcdd65	Cooling Degree Days	72.5384066
bhdd55	Heating Degree Days	311.3482457
LM_IMI	Service Area Manufacturing Employment	172.0398399
frbmvp	FRB Index-Motor Vehichles and Parts	147.7862292
d1	Binary Variable - January	0.0833333
d2	Binary Variable - February	0.0833333
d3	Binary Variable - March	0.0833333
d4	Binary Variable - April	0.0833333
d5	Binary Variable - May	0.0833333
d6	Binary Variable - June	0.0833333
d7	Binary Variable - July	0.0833333
d8	Binary Variable - August	0.0833333
d9	Binary Variable - September	0.0833333
d10	Binary Variable - October	0.0833333
d11	Binary Variable - November	0.0833333
jan04	Binary Variable - January 2004	0.0014881
sep04	Binary Variable - September 2004	0.0014881
d05on	Binary Variable 2005 On	0.9464286
d11on	Binary Variable 2011 on	0.8392857
nov15on	Binary Variable - November 2015 On	0.7529762
apr20	Binary Variable - April 2020	0.0014881
may20	Binary Variable - May 2020	0.0014881

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Year	Month	Exogenous Variables														PUBLIC REDACTED					
		b	b	L	f																
Year	Month	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
2002	1	0.000	712.60	202.485	97.164	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	2	0.000	607.72	202.283	98.665	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	3	0.000	599.08	202.126	100.291	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	4	13.189	455.02	201.970	102.025	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
2002	5	30.991	144.03	201.782	103.740	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
2002	6	75.498	53.77	201.528	105.321	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2002	7	295.645	0.00	201.176	106.505	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
2002	8	327.454	0.00	200.710	106.993	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2002	9	210.296	0.23	200.157	106.680	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2002	10	81.749	48.66	199.538	106.116	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2002	11	5.302	329.06	198.877	106.038	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2002	12	0.000	660.73	198.194	106.834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	1	0.000	832.87	197.504	107.823	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	2	0.000	1075.66	196.869	107.962	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	3	0.000	910.73	196.277	106.766	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	4	0.360	370.95	195.732	105.032	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
2003	5	3.731	134.04	195.275	104.148	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
2003	6	20.781	15.81	194.930	104.976	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2003	7	169.749	0.16	194.723	106.856	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
2003	8	196.748	0.00	194.650	108.621	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2003	9	173.610	0.03	194.698	109.403	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2003	10	18.686	81.09	194.849	109.554	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2003	11	0.851	223.98	195.079	109.758	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2003	12	0.131	512.16	195.368	110.436	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	1	0.000	760.38	195.709	111.216	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2004	2	0.000	1073.21	196.060	111.437	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	3	0.000	684.92	196.415	110.718	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	4	3.567	344.28	196.766	109.321	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
2004	5	39.762	103.41	197.081	107.753	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
2004	6	98.177	9.03	197.340	106.457	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
2004	7	153.779	0.00	197.529	105.645	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
2004	8	138.234	0.00	197.645	105.452	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2004	9	123.147	0.00	197.690	105.930	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
2004	10	43.100	47.55	197.675	106.857	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2004	11	2.749	161.21	197.607	107.933	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2004	12	0.196	469.29	197.499	108.877	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	1	0.000	831.69	197.356	109.462	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2005	2	0.000	940.34	197.196	109.470	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2005	3	0.000	749.98	197.021	108.860	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0
2005	4	0.949	401.40	196.835	107.939	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
2005	5	11.110	165.99	196.650	107.212	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
2005	6	86.396	27.64	196.472	107.045	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
2005	7	278.235	0.00	196.321	107.435	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
2005	8	313.415	0.00	196.185	108.253	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0



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		b	b	L	f	PUBLIC REDACTED																
	M	c	h	M	r	PUBLIC REDACTED																
	0	d	d	—	b	PUBLIC REDACTED																
	1	6	5	M	v	d	d	d	d	d	d	d	d	d	1	1	0	0	0	0	0	
	R	H	5	I	p	1	2	3	4	5	6	7	8	9	0	1	4	4	n	n	n	0
2005	9	191.839	0.00	196.063	109.275	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
2005	10	89.145	22.68	195.944	110.139	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
2005	11	7.216	199.84	195.823	110.425	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
2005	12	0.000	704.59	195.686	109.936	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2006	1	0.000	744.12	195.528	109.182	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2006	2	0.000	611.25	195.347	108.920	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2006	3	0.000	682.58	195.132	109.474	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2006	4	0.982	384.33	194.861	110.181	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
2006	5	1.898	81.99	194.538	109.952	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
2006	6	85.218	31.61	194.151	108.195	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
2006	7	197.075	0.00	193.694	105.785	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
2006	8	294.680	0.00	193.154	104.083	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
2006	9	122.362	1.80	192.563	104.010	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
2006	10	11.290	62.18	191.924	104.869	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
2006	11	1.031	324.30	191.247	105.512	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
2006	12	0.000	475.62	190.547	105.241	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2007	1	0.000	544.00	189.816	104.760	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2007	2	0.000	987.17	189.117	105.190	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2007	3	0.065	906.10	188.423	107.097	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2007	4	4.123	340.81	187.723	109.594	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
2007	5	20.781	129.43	187.053	111.093	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
2007	6	146.203	8.82	186.422	110.581	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
2007	7	215.090	0.00	185.842	108.644	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
2007	8	255.523	0.00	185.285	106.398	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
2007	9	213.732	1.57	184.739	104.752	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
2007	10	105.017	15.82	184.144	103.582	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
2007	11	22.286	192.89	183.468	102.499	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
2007	12	0.000	608.47	182.663	101.169	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2008	1	0.000	753.95	181.675	99.405	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2008	2	0.000	903.12	180.514	97.205	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2008	3	0.000	857.69	179.112	94.494	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2008	4	0.245	453.22	177.402	91.456	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
2008	5	9.654	109.89	175.358	88.447	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
2008	6	95.641	25.40	172.949	85.736	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
2008	7	185.375	0.03	170.130	83.454	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
2008	8	234.333	0.00	166.874	81.648	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
2008	9	174.134	0.00	163.381	80.172	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
2008	10	47.354	29.14	159.690	77.959	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
2008	11	3.076	234.86	155.898	73.744	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
2008	12	0.000	702.59	152.103	66.931	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2009	1	0.000	910.79	148.335	59.003	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2009	2	0.000	1077.43	144.929	52.668	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2009	3	0.000	650.77	141.785	49.238	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
2009	4	0.540	336.81	138.896	48.905	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0

### Indiana Michigan Power Company

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#### Exogenous Variables

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YEAR MONTH

2009 5 27.032 129.99 136.481 51.639 0 0 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0  
 2009 6 68.135 14.02 134.620 56.853 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0  
 2009 7 192.559 0.00 133.413 63.123 0 0 0 0 0 0 1 0 0 0 0 0 0 1 0 0 0 0  
 2009 8 154.679 0.00 132.863 68.785 0 0 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0  
 2009 9 111.039 0.00 132.910 72.413 0 0 0 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0  
 2009 10 33.609 74.96 133.470 74.339 0 0 0 0 0 0 0 0 0 1 0 0 0 1 0 0 0 0  
 2009 11 0.000 203.93 134.445 75.287 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0 0  
 2009 12 0.000 475.47 135.767 75.861 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0  
 2010 1 0.000 901.58 137.378 76.357 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0  
 2010 2 0.000 924.24 139.076 76.914 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0  
 2010 3 0.000 702.20 140.873 77.737 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0  
 2010 4 8.492 235.85 142.737 79.090 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 0 0 0  
 2010 5 19.652 55.26 144.547 81.211 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 0 0 0  
 2010 6 180.237 11.26 146.209 84.048 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 0 0 0  
 2010 7 323.478 0.00 147.644 86.656 0 0 0 0 0 0 1 0 0 0 0 0 0 1 0 0 0 0  
 2010 8 363.780 0.00 148.848 87.804 0 0 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0 0  
 2010 9 222.143 0.00 149.806 86.855 0 0 0 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0  
 2010 10 64.813 25.89 150.565 85.147 0 0 0 0 0 0 0 0 0 1 0 0 0 1 0 0 0 0  
 2010 11 5.809 200.35 151.159 84.584 0 0 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0 0  
 2010 12 0.000 650.98 151.623 86.287 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0  
 2011 1 0.000 958.16 151.985 88.931 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2011 2 0.000 1033.91 152.264 90.290 0 1 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2011 3 0.000 705.44 152.502 89.252 0 0 1 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2011 4 2.094 408.52 152.734 86.962 0 0 0 1 0 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2011 5 17.099 126.11 152.989 85.517 0 0 0 0 1 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2011 6 154.744 17.62 153.288 86.331 0 0 0 0 0 1 0 0 0 0 0 0 0 1 1 0 0 0  
 2011 7 286.318 0.00 153.669 88.701 0 0 0 0 0 0 1 0 0 0 0 0 0 1 1 0 0 0  
 2011 8 410.578 0.00 154.147 91.225 0 0 0 0 0 0 0 1 0 0 0 0 0 1 1 0 0 0  
 2011 9 193.115 2.70 154.692 92.817 0 0 0 0 0 0 0 0 1 0 0 0 0 1 1 0 0 0  
 2011 10 25.984 32.45 155.299 93.811 0 0 0 0 0 0 0 0 0 1 0 0 0 1 1 0 0 0  
 2011 11 0.802 182.58 155.957 94.910 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1 0 0 0  
 2011 12 0.000 432.00 156.649 96.571 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2012 1 0.000 648.72 157.373 98.505 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2012 2 0.000 741.32 158.080 100.062 0 1 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2012 3 6.578 523.17 158.783 100.880 0 0 1 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2012 4 21.239 138.41 159.476 100.955 0 0 0 1 0 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2012 5 27.097 104.26 160.134 100.381 0 0 0 0 1 0 0 0 0 0 0 0 0 1 1 0 0 0  
 2012 6 153.615 3.47 160.746 99.382 0 0 0 0 0 1 0 0 0 0 0 0 0 1 1 0 0 0  
 2012 7 370.603 0.33 161.295 98.453 0 0 0 0 0 0 1 0 0 0 0 0 0 1 1 0 0 0  
 2012 8 322.644 0.00 161.789 98.185 0 0 0 0 0 0 0 1 0 0 0 0 0 1 1 0 0 0  
 2012 9 158.442 2.24 162.220 98.927 0 0 0 0 0 0 0 0 1 0 0 0 0 1 1 0 0 0  
 2012 10 23.415 74.66 162.602 100.273 0 0 0 0 0 0 0 0 0 1 0 0 0 1 1 0 0 0  
 2012 11 2.291 276.53 162.952 101.586 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1 0 0 0  
 2012 12 0.000 467.80 163.267 102.440 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0

Indiana Michigan Power Company  
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Year	Month	Exogenous Variables													1	1	0	0	5	1	1	5	1	2
		b	b	L	f	j	s	d	d	v	a	m												
Y	M	c	h	M	r	j	s	d	d	v	a	m	d	d	n	p	5	1	1	5	r	y		
A	T	6	5	I	m	d	d	d	d	d	d	d	d	1	1	0	0	o	o	o	2	2		
R	H	5	5	I	p	1	2	3	4	5	6	7	8	9	0	1	4	4	n	n	n	0	0	
2013	1	0.000	736.04	163.572	103.052	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0			
2013	2	0.000	846.44	163.854	103.783	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0		
2013	3	0.000	763.23	164.133	104.876	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0		
2013	4	0.000	522.37	164.430	106.039	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0		
2013	5	22.057	134.27	164.742	106.703	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0		
2013	6	117.142	13.76	165.084	106.614	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0		
2013	7	237.671	0.00	165.459	106.358	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0		
2013	8	187.421	0.00	165.878	106.822	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0		
2013	9	183.968	0.64	166.329	108.454	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0		
2013	10	67.350	21.66	166.808	110.515	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0		
2013	11	6.005	267.71	167.318	111.886	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0		
2013	12	0.000	668.46	167.853	111.889	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0		
2014	1	0.000	955.41	168.422	111.248	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0		
2014	2	0.000	1173.96	168.976	111.140	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0		
2014	3	0.000	1016.01	169.551	112.288	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0		
2014	4	0.000	524.45	170.155	114.402	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0		
2014	5	15.561	128.47	170.765	116.724	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0		
2014	6	119.646	26.03	171.384	118.635	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0		
2014	7	223.779	0.00	172.006	119.938	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0		
2014	8	143.601	0.00	172.634	120.594	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0		
2014	9	179.452	1.67	173.241	120.603	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0		
2014	10	18.752	46.68	173.843	120.199	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0		
2014	11	0.360	283.93	174.426	119.671	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0		
2014	12	0.000	669.60	174.979	119.269	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0		
2015	1	0.000	832.76	175.519	119.131	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0		
2015	2	0.000	1002.44	175.997	119.347	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0		
2015	3	0.000	1039.32	176.441	120.004	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0		
2015	4	0.000	429.08	176.854	121.214	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0		
2015	5	30.664	113.38	177.219	123.048	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0		
2015	6	127.042	11.49	177.531	125.353	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0		
2015	7	166.165	0.08	177.780	127.298	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0		
2015	8	232.173	0.00	177.976	127.830	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0		
2015	9	181.628	0.00	178.123	126.405	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0		
2015	10	60.166	21.81	178.232	124.083	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0		
2015	11	1.587	140.82	178.316	122.398	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0		
2015	12	0.000	394.07	178.387	122.347	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0		
2016	1	0.000	597.23	178.455	123.241	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0		
2016	2	0.000	829.99	178.528	123.808	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0		
2016	3	0.000	567.38	178.623	123.321	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0		
2016	4	0.000	306.12	178.746	122.432	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0		
2016	5	1.849	123.43	178.911	122.291	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0		
2016	6	134.029	21.81	179.126	123.585	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0		
2016	7	224.924	0.00	179.407	125.625	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0		
2016	8	332.380	0.00	179.756	127.264	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0		

Indiana Michigan Power Company  
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Y E A R	M O N T H	b c d 6 5	b h d 5 5	L M _ I M I	f r b m v p	1	2	3	4	5	6	7	8	9	1	1	0	0	1	1	1	0	0
															d	d	n	p	5	1	5	2	2

2016	9	249.976	0.00	180.155	127.637	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2016	10	97.539	7.45	180.604	127.013	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2016	11	16.412	122.21	181.095	125.981	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0
2016	12	0.655	543.87	181.621	125.052	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2017	1	0.000	805.30	182.183	124.527	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2017	2	0.000	615.97	182.733	124.634	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2017	3	0.000	470.74	183.295	125.371	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2017	4	4.173	332.02	183.880	126.186	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2017	5	27.571	86.59	184.457	126.244	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0
2017	6	105.426	16.97	185.026	125.100	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	0	0
2017	7	230.946	0.00	185.573	123.411	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	0	0
2017	8	215.761	0.00	186.109	122.199	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	0	0
2017	9	104.052	0.00	186.613	122.259	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0
2017	10	109.402	3.99	187.094	123.484	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0
2017	11	11.798	238.29	187.558	125.505	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0
2017	12	0.000	506.33	188.001	127.869	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2018	1	0.000	1011.93	188.429	129.847	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2018	2	0.000	845.60	188.819	130.544	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2018	3	0.000	583.35	189.194	129.657	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2018	4	0.425	514.84	189.564	127.950	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2018	5	23.612	176.70	189.922	126.702	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0
2018	6	187.339	1.87	190.263	126.821	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	0	0
2018	7	299.899	0.00	190.590	128.112	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	0	0
2018	8	251.580	0.00	190.898	130.013	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	0	0
2018	9	259.663	0.00	191.157	131.864	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0
2018	10	129.398	38.89	191.353	133.072	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0
2018	11	18.277	302.93	191.466	133.029	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0
2018	12	0.000	601.89	191.473	131.439	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2019	1	0.000	614.13	191.357	129.009	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2019	2	0.000	901.60	191.109	126.940	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2019	3	0.000	750.78	190.706	125.922	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2019	4	0.000	390.24	190.110	126.120	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2019	5	6.251	114.51	189.311	127.572	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0
2019	6	99.748	19.24	188.289	129.830	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	0	0
2019	7	305.266	0.00	187.024	131.267	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	0	0
2019	8	289.885	0.00	185.508	129.834	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	0	0
2019	9	160.946	0.00	183.834	125.005	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0
2019	10	102.170	22.53	182.032	120.479	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0
2019	11	5.956	297.95	180.153	121.227	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	0	0
2019	12	0.000	607.70	178.245	128.770	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2020	1	0.000	605.26	176.328	133.760	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2020	2	0.000	701.28	174.549	123.656	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2020	3	0.000	655.79	172.890	93.308	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
2020	4	0.000	354.86	171.376	58.814	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	0

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Year	Month	Exogenous Variables												Public Redacted								
		b	b	L	f	j	s	d	d	v	a	m	d	d	o	o	o	o	o	o		
																					c	h
2020	5	3.845	204.782	170.086	44.949	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	1
2020	6	127.696	34.788	169.072	65.855	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2020	7	297.919	0.000	168.382	105.636	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2020	8	278.218	0.000	168.016	138.336	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2020	9	179.763	0.802	167.950	145.194	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2020	10	22.810	48.009	168.141	134.769	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2020	11	2.324	212.980	168.542	123.313	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2020	12	0.916	461.598	169.116	122.416	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2021	1	0.000	689.156	169.836	129.460	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2021	2	0.000	885.309	170.608	136.690	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2021	3	0.221	703.560	171.429	139.382	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2021	4	2.548	389.426	172.289	138.416	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2021	5	18.512	124.656	173.126	136.522	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2021	6	106.676	17.782	173.898	135.902	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2021	7	243.038	0.189	174.562	136.356	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2021	8	254.533	0.000	175.115	136.874	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2021	9	176.959	0.696	175.550	136.750	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2021	10	54.558	41.135	175.892	136.289	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2021	11	4.977	232.738	176.152	136.094	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2021	12	0.063	545.497	176.346	136.575	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2022	1	0.000	792.471	176.487	137.533	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2022	2	0.000	885.309	176.581	138.493	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2022	3	0.221	703.560	176.654	139.206	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2022	4	2.548	389.426	176.713	139.683	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2022	5	18.512	124.656	176.774	139.989	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2022	6	106.676	17.782	176.849	140.204	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2022	7	243.038	0.189	176.950	140.358	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2022	8	254.533	0.000	177.084	140.466	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2022	9	176.959	0.696	177.241	140.528	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2022	10	54.558	41.135	177.419	140.517	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2022	11	4.977	232.738	177.610	140.400	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2022	12	0.063	545.497	177.812	140.160	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2023	1	0.000	792.471	178.019	139.848	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2023	2	0.000	885.309	178.210	139.556	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2023	3	0.221	703.560	178.395	139.319	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2023	4	2.548	389.426	178.568	139.114	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2023	5	18.512	124.656	178.720	138.909	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2023	6	106.676	17.782	178.846	138.672	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2023	7	243.038	0.189	178.940	138.399	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2023	8	254.533	0.000	178.999	138.091	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2023	9	176.959	0.696	179.023	137.767	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2023	10	54.558	41.135	179.022	137.447	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2023	11	4.977	232.738	178.995	137.157	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2023	12	0.063	545.497	178.947	136.909	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0

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Y	M	b	b	L	f	j	s	d	d	v	a	m	Y	E	A	R	H	PUBLIC REDACTED											
																		0	1	4	4	n	n	n	0	0	2	2	
2024	1	0.000	792.471	178.878	136.665	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2024	2	0.000	885.309	178.801	136.386	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2024	3	0.221	703.560	178.708	136.030	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2024	4	2.548	389.426	178.608	135.591	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2024	5	18.512	124.656	178.503	135.092	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0						
2024	6	106.676	17.782	178.396	134.556	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0						
2024	7	243.038	0.189	178.291	134.024	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0						
2024	8	254.533	0.000	178.189	133.539	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0						
2024	9	176.959	0.696	178.094	133.158	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0						
2024	10	54.558	41.135	177.996	132.892	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0						
2024	11	4.977	232.738	177.905	132.752	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0						
2024	12	0.063	545.497	177.814	132.739	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2025	1	0.000	792.471	177.725	132.830	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2025	2	0.000	885.309	177.643	132.978	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2025	3	0.221	703.560	177.558	133.160	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2025	4	2.548	389.426	177.474	133.376	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2025	5	18.512	124.656	177.388	133.621	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0						
2025	6	106.676	17.782	177.301	133.888	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0						
2025	7	243.038	0.189	177.219	134.147	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0						
2025	8	254.533	0.000	177.132	134.369	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0						
2025	9	176.959	0.696	177.044	134.513	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0						
2025	10	54.558	41.135	176.957	134.561	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0						
2025	11	4.977	232.738	176.869	134.496	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0						
2025	12	0.063	545.497	176.786	134.309	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2026	1	0.000	792.471	176.697	134.029	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2026	2	0.000	885.309	176.614	133.719	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2026	3	0.221	703.560	176.531	133.406	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2026	4	2.548	389.426	176.451	133.114	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2026	5	18.512	124.656	176.369	132.888	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0						
2026	6	106.676	17.782	176.289	132.749	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0						
2026	7	243.038	0.189	176.209	132.685	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0						
2026	8	254.533	0.000	176.131	132.668	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0						
2026	9	176.959	0.696	176.055	132.678	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0						
2026	10	54.558	41.135	175.986	132.710	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0						
2026	11	4.977	232.738	175.912	132.763	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0						
2026	12	0.063	545.497	175.845	132.838	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2027	1	0.000	792.471	175.775	132.944	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2027	2	0.000	885.309	175.713	133.080	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2027	3	0.221	703.560	175.646	133.258	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2027	4	2.548	389.426	175.584	133.483	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0						
2027	5	18.512	124.656	175.521	133.747	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0						
2027	6	106.676	17.782	175.463	134.043	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0						
2027	7	243.038	0.189	175.401	134.356	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0						
2027	8	254.533	0.000	175.342	134.672	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0						



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Year	Month	b		L	f	PUBLIC REDACTED																	
		c	h	M	r	PUBLIC REDACTED																	
		d	d	I	b	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d		
Month	5	5	I	p	1	2	3	4	5	6	7	8	9	0	1	4	4	n	n	n	0	0	
2031	5	18.512	124.656	173.464	145.023	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	
2031	6	106.676	17.782	173.430	145.308	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2031	7	243.038	0.189	173.398	145.637	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2031	8	254.533	0.000	173.362	145.985	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2031	9	176.959	0.696	173.329	146.318	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2031	10	54.558	41.135	173.294	146.631	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2031	11	4.977	232.738	173.260	146.915	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2031	12	0.063	545.497	173.226	147.167	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2032	1	0.000	792.471	173.191	147.389	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2032	2	0.000	885.309	173.159	147.571	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2032	3	0.221	703.560	173.129	147.729	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2032	4	2.548	389.426	173.096	147.894	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2032	5	18.512	124.656	173.063	148.101	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2032	6	106.676	17.782	173.036	148.377	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2032	7	243.038	0.189	173.009	148.717	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2032	8	254.533	0.000	172.980	149.113	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2032	9	176.959	0.696	172.954	149.532	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2032	10	54.558	41.135	172.927	149.951	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2032	11	4.977	232.738	172.902	150.339	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2032	12	0.063	545.497	172.877	150.674	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2033	1	0.000	792.471	172.855	150.974	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2033	2	0.000	885.309	172.834	151.245	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2033	3	0.221	703.560	172.814	151.523	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2033	4	2.548	389.426	172.789	151.831	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2033	5	18.512	124.656	172.769	152.172	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2033	6	106.676	17.782	172.746	152.551	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2033	7	243.038	0.189	172.723	152.954	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2033	8	254.533	0.000	172.701	153.366	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2033	9	176.959	0.696	172.679	153.754	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2033	10	54.558	41.135	172.655	154.118	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2033	11	4.977	232.738	172.635	154.455	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2033	12	0.063	545.497	172.609	154.763	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2034	1	0.000	792.471	172.585	155.050	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2034	2	0.000	885.309	172.564	155.305	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2034	3	0.221	703.560	172.536	155.552	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2034	4	2.548	389.426	172.511	155.820	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2034	5	18.512	124.656	172.487	156.129	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2034	6	106.676	17.782	172.462	156.492	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2034	7	243.038	0.189	172.434	156.884	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2034	8	254.533	0.000	172.406	157.273	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2034	9	176.959	0.696	172.382	157.613	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2034	10	54.558	41.135	172.349	157.896	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2034	11	4.977	232.738	172.323	158.115	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2034	12	0.063	545.497	172.297	158.268	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0



Indiana Michigan Power Company  
City of Auburn  
Exogenous Variables

Indiana Michigan Power Company  
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Year	Month	Public Redacted																					
		Mo	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb							
2035	1	0.000	792.471	172.270	158.382	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2035	2	0.000	885.309	172.242	158.481	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2035	3	0.221	703.560	172.215	158.597	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2035	4	2.548	389.426	172.191	158.743	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2035	5	18.512	124.656	172.160	158.925	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2035	6	106.676	17.782	172.139	159.142	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2035	7	243.038	0.189	172.113	159.377	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2035	8	254.533	0.000	172.088	159.609	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2035	9	176.959	0.696	172.063	159.813	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2035	10	54.558	41.135	172.043	159.983	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2035	11	4.977	232.738	172.020	160.118	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2035	12	0.063	545.497	171.996	160.217	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2036	1	0.000	792.471	171.974	160.300	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2036	2	0.000	885.309	171.954	160.387	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2036	3	0.221	703.560	171.931	160.497	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2036	4	2.548	389.426	171.910	160.636	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2036	5	18.512	124.656	171.885	160.803	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2036	6	106.676	17.782	171.861	160.993	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2036	7	243.038	0.189	171.839	161.198	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2036	8	254.533	0.000	171.814	161.410	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2036	9	176.959	0.696	171.790	161.614	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2036	10	54.558	41.135	171.764	161.808	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2036	11	4.977	232.738	171.736	161.986	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2036	12	0.063	545.497	171.713	162.145	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2037	1	0.000	792.471	171.687	162.279	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2037	2	0.000	885.309	171.662	162.371	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2037	3	0.221	703.560	171.635	162.431	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2037	4	2.548	389.426	171.610	162.487	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2037	5	18.512	124.656	171.583	162.579	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2037	6	106.676	17.782	171.559	162.731	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2037	7	243.038	0.189	171.536	162.931	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2037	8	254.533	0.000	171.511	163.153	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2037	9	176.959	0.696	171.488	163.368	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2037	10	54.558	41.135	171.464	163.573	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2037	11	4.977	232.738	171.440	163.769	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2037	12	0.063	545.497	171.416	163.956	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2038	1	0.000	792.471	171.393	164.142	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2038	2	0.000	885.309	171.371	164.319	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2038	3	0.221	703.560	171.348	164.502	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2038	4	2.548	389.426	171.326	164.703	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2038	5	18.512	124.656	171.302	164.923	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2038	6	106.676	17.782	171.279	165.164	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2038	7	243.038	0.189	171.253	165.415	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2038	8	254.533	0.000	171.232	165.665	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0

Indiana Michigan Power Company  
City of Auburn  
Exogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

Y E A R	M O N T H	Publicly Available Information														n	o	j	s	d	d	v	a	m				
		b	b	L	f	Publicly Available Information																						
						c	h	M	r	d	d	d	d	d	d										d	d	d	d
6	5	M	v	1	2	3	4	5	6	7	8	9	0	1	4	4	0	0	0	0	2	2						
2038	9	176.959	0.696	171.205	165.893	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0				
2038	10	54.558	41.135	171.181	166.104	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0				
2038	11	4.977	232.738	171.155	166.300	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0				
2038	12	0.063	545.497	171.128	166.488	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2039	1	0.000	792.471	171.100	166.682	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2039	2	0.000	885.309	171.074	166.886	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2039	3	0.221	703.560	171.048	167.117	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2039	4	2.548	389.426	171.020	167.383	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2039	5	18.512	124.656	170.995	167.669	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2039	6	106.676	17.782	170.967	167.966	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0				
2039	7	243.038	0.189	170.937	168.262	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0				
2039	8	254.533	0.000	170.909	168.548	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0				
2039	9	176.959	0.696	170.881	168.803	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0				
2039	10	54.558	41.135	170.852	169.029	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0				
2039	11	4.977	232.738	170.820	169.224	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0				
2039	12	0.063	545.497	170.790	169.387	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2040	1	0.000	792.471	170.761	169.533	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2040	2	0.000	885.309	170.729	169.664	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2040	3	0.221	703.560	170.698	169.800	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2040	4	2.548	389.426	170.664	169.953	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2040	5	18.512	124.656	170.633	170.133	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2040	6	106.676	17.782	170.599	170.344	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0				
2040	7	243.038	0.189	170.563	170.568	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0				
2040	8	254.533	0.000	170.529	170.782	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0				
2040	9	176.959	0.696	170.493	170.960	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0				
2040	10	54.558	41.135	170.457	171.107	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0				
2040	11	4.977	232.738	170.418	171.233	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0				
2040	12	0.063	545.497	170.381	171.343	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2041	1	0.000	792.471	170.341	171.445	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2041	2	0.000	885.309	170.303	171.535	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2041	3	0.221	703.560	170.263	171.623	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2041	4	2.548	389.426	170.222	171.721	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2041	5	18.512	124.656	170.178	171.840	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2041	6	106.676	17.782	170.138	171.985	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0				
2041	7	243.038	0.189	170.094	172.151	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0				
2041	8	254.533	0.000	170.051	172.327	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0				
2041	9	176.959	0.696	170.003	172.501	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0				
2041	10	54.558	41.135	169.960	172.691	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0				
2041	11	4.977	232.738	169.912	172.920	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0				
2041	12	0.063	545.497	169.866	173.196	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2042	1	0.000	792.471	169.818	173.492	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2042	2	0.000	885.309	169.770	173.746	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2042	3	0.221	703.560	169.722	173.943	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				
2042	4	2.548	389.426	169.670	174.092	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0				

Indiana Michigan Power Company City of Auburn Exogenous Variables						Indiana Michigan Power Company 2021 IRP, Volume 3, Exhibit E PUBLIC REDACTED																	
Y E A R	M O N T H	b	b	L	f																		
		c	h	M	r	j	s	d	d	v	a	m											
		d	d	—	b	a	e	0	1	1	p	a											
		6	5	M	v	d	d	0	0	o	o	2	2										
		5	5	I	p	1	2	3	4	5	6	7	8	9	0	1	4	4	n	n	n	0	0
2042	5	18.512	124.656	169.618	174.204	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	
2042	6	106.676	17.782	169.567	174.298	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2042	7	243.038	0.189	169.513	174.404	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2042	8	254.533	0.000	169.457	174.554	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2042	9	176.959	0.696	169.403	174.761	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2042	10	54.558	41.135	169.347	174.999	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2042	11	4.977	232.738	169.290	175.230	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2042	12	0.063	545.497	169.229	175.424	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2043	1	0.000	792.471	169.170	175.594	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2043	2	0.000	885.309	169.110	175.750	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2043	3	0.221	703.560	169.054	175.916	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2043	4	2.548	389.426	168.994	176.108	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2043	5	18.512	124.656	168.930	176.328	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2043	6	106.676	17.782	168.868	176.574	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2043	7	243.038	0.189	168.803	176.822	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2043	8	254.533	0.000	168.738	177.044	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2043	9	176.959	0.696	168.673	177.212	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2043	10	54.558	41.135	168.608	177.350	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2043	11	4.977	232.738	168.543	177.489	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2043	12	0.063	545.497	168.476	177.651	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2044	1	0.000	792.471	168.411	177.835	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2044	2	0.000	885.309	168.344	178.019	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2044	3	0.221	703.560	168.281	178.199	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2044	4	2.548	389.426	168.217	178.370	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2044	5	18.512	124.656	168.147	178.528	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2044	6	106.676	17.782	168.085	178.672	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2044	7	243.038	0.189	168.023	178.822	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2044	8	254.533	0.000	167.959	179.002	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2044	9	176.959	0.696	167.897	179.220	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2044	10	54.558	41.135	167.834	179.466	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2044	11	4.977	232.738	167.777	179.719	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2044	12	0.063	545.497	167.718	179.962	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2045	1	0.000	792.471	167.655	180.199	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2045	2	0.000	885.309	167.599	180.421	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2045	3	0.221	703.560	167.546	180.645	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2045	4	2.548	389.426	167.488	180.885	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2045	5	18.512	124.656	167.430	181.138	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2045	6	106.676	17.782	167.369	181.407	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2045	7	243.038	0.189	167.316	181.689	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2045	8	254.533	0.000	167.258	181.983	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2045	9	176.959	0.696	167.198	182.274	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2045	10	54.558	41.135	167.145	182.573	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2045	11	4.977	232.738	167.087	182.888	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2045	12	0.063	545.497	167.029	183.222	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0

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Year	Month	PUBLIC REDACTED														PUBLIC REDACTED							
		PUBLIC REDACTED														PUBLIC REDACTED							
		b	b	L	f											j	s	d	d	v	a	m	
Y	M	c	h	M	r											a	e	0	1	1	5	r	y
A	T	d	d	I	m	d	d	d	d	d	d	d	d	d	1	1	0	0	0	0	2	2	
R	H	5	5	I	p	1	2	3	4	5	6	7	8	9	0	1	4	4	n	n	0	0	
2046	1	0.000	792.471	166.973	183.560	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2046	2	0.000	885.309	166.914	183.858	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2046	3	0.221	703.560	166.858	184.118	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2046	4	2.548	389.426	166.799	184.362	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2046	5	18.512	124.656	166.740	184.607	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2046	6	106.676	17.782	166.681	184.869	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2046	7	243.038	0.189	166.618	185.145	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2046	8	254.533	0.000	166.557	185.426	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2046	9	176.959	0.696	166.492	185.695	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2046	10	54.558	41.135	166.426	185.956	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2046	11	4.977	232.738	166.364	186.216	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2046	12	0.063	545.497	166.300	186.478	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2047	1	0.000	792.471	166.233	186.745	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2047	2	0.000	885.309	166.168	187.000	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2047	3	0.221	703.560	166.105	187.252	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2047	4	2.548	389.426	166.038	187.511	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2047	5	18.512	124.656	165.969	187.767	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2047	6	106.676	17.782	165.902	188.020	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2047	7	243.038	0.189	165.832	188.270	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2047	8	254.533	0.000	165.763	188.524	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2047	9	176.959	0.696	165.694	188.774	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2047	10	54.558	41.135	165.623	189.025	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2047	11	4.977	232.738	165.554	189.277	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2047	12	0.063	545.497	165.483	189.529	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2048	1	0.000	792.471	165.414	189.787	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2048	2	0.000	885.309	165.344	190.037	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2048	3	0.221	703.560	165.278	190.288	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2048	4	2.548	389.426	165.207	190.543	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2048	5	18.512	124.656	165.135	190.798	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2048	6	106.676	17.782	165.066	191.052	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2048	7	243.038	0.189	164.998	191.304	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2048	8	254.533	0.000	164.927	191.559	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2048	9	176.959	0.696	164.858	191.807	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2048	10	54.558	41.135	164.788	192.055	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2048	11	4.977	232.738	164.722	192.303	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2048	12	0.063	545.497	164.653	192.553	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2049	1	0.000	792.471	164.589	192.808	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2049	2	0.000	885.309	164.520	193.050	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2049	3	0.221	703.560	164.455	193.291	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2049	4	2.548	389.426	164.387	193.540	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2049	5	18.512	124.656	164.320	193.791	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2049	6	106.676	17.782	164.256	194.044	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2049	7	243.038	0.189	164.187	194.295	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2049	8	254.533	0.000	164.120	194.541	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0

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Y E A R	M O N T H	b c d 6 5	b h d 5 5	L M — I M I	f r b m v p	PUBLIC REDACTED													d v a m p r y					
		PUBLIC REDACTED													j a n	s e p	d 0 5	d 1 1	v 1 5	a p r	m y			
		1	2	3	4	5	6	7	8	9	0	1	4	4	n	n	n	0	0					
2049	9	176.959	0.696	164.054	194.771	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2049	10	54.558	41.135	163.985	194.987	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2049	11	4.977	232.738	163.921	195.188	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2049	12	0.063	545.497	163.852	195.376	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2050	1	0.000	792.471	163.786	195.561	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2050	2	0.000	885.309	163.721	195.743	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2050	3	0.221	703.560	163.655	195.935	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2050	4	2.548	389.426	163.592	196.144	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2050	5	18.512	124.656	163.524	196.357	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2050	6	106.676	17.782	163.455	196.572	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2050	7	243.038	0.189	163.391	196.788	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2050	8	254.533	0.000	163.322	197.014	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2050	9	176.959	0.696	163.253	197.243	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2050	10	54.558	41.135	163.184	197.482	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2050	11	4.977	232.738	163.116	197.733	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2050	12	0.063	545.497	163.049	198.000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2051	1	0.000	792.471	162.989	198.355	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2051	2	0.000	885.309	162.928	198.473	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2051	3	0.221	703.560	162.861	198.616	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2051	4	2.548	389.426	162.803	198.783	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2051	5	18.512	124.656	162.734	198.957	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2051	6	106.676	17.782	162.660	199.132	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2051	7	243.038	0.189	162.601	199.314	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2051	8	254.533	0.000	162.530	199.518	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2051	9	176.959	0.696	162.458	199.746	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2051	10	54.558	41.135	162.389	200.009	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2051	11	4.977	232.738	162.317	200.312	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2051	12	0.063	545.497	162.252	200.660	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2052	1	0.000	792.471	162.198	201.188	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2052	2	0.000	885.309	162.141	201.242	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2052	3	0.221	703.560	162.073	201.333	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2052	4	2.548	389.426	162.020	201.457	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2052	5	18.512	124.656	161.950	201.592	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2052	6	106.676	17.782	161.871	201.726	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2052	7	243.038	0.189	161.817	201.873	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2052	8	254.533	0.000	161.744	202.054	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2052	9	176.959	0.696	161.669	202.280	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2052	10	54.558	41.135	161.600	202.568	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2052	11	4.977	232.738	161.524	202.924	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2052	12	0.063	545.497	161.461	203.355	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2053	1	0.000	792.471	161.413	204.061	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2053	2	0.000	885.309	161.359	204.050	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2053	3	0.221	703.560	161.290	204.088	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2053	4	2.548	389.426	161.242	204.167	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0

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Y E A R	M O N T H	Exogenous Variables													PUBLIC REDACTED								
		b c d 6 5	b h d 5 5	L M - I M I	f r b m v p																		
2053	5	18.512	124.656	161.171	204.261	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	
2053	6	106.676	17.782	161.088	204.354	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2053	7	243.038	0.189	161.038	204.464	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	
2053	8	254.533	0.000	160.963	204.622	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	
2053	9	176.959	0.696	160.886	204.847	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	
2053	10	54.558	41.135	160.816	205.160	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2053	11	4.977	232.738	160.737	205.570	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2053	12	0.063	545.497	160.675	206.087	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2054	1	0.000	792.471	160.633	206.976	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2054	2	0.000	885.309	160.584	206.896	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2054	3	0.221	703.560	160.514	206.880	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2054	4	2.548	389.426	160.470	206.914	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	
2054	5	18.512	124.656	160.398	206.965	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	
2054	6	106.676	17.782	160.310	207.016	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	
2054	7	243.038	0.189	160.265	207.088	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	
2054	8	254.533	0.000	160.189	207.223	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	
2054	9	176.959	0.696	160.108	207.447	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	
2054	10	54.558	41.135	160.039	207.785	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	
2054	11	4.977	232.738	159.955	208.251	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2054	12	0.063	545.497	159.896	208.855	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2055	1	0.000	792.471	159.859	209.932	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2055	2	0.000	885.309	159.814	209.783	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2055	3	0.221	703.560	159.743	209.711	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2055	4	2.548	389.426	159.704	209.697	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	
2055	5	18.512	124.656	159.631	209.706	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	
2055	6	106.676	17.782	159.539	209.713	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	
2055	7	243.038	0.189	159.498	209.747	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	
2055	8	254.533	0.000	159.420	209.856	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	
2055	9	176.959	0.696	159.336	210.080	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	
2055	10	54.558	41.135	159.267	210.444	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	
2055	11	4.977	232.738	159.180	210.967	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2055	12	0.063	545.497	159.122	211.661	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2056	1	0.000	792.471	159.091	212.930	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2056	2	0.000	885.309	159.050	212.709	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2056	3	0.221	703.560	158.978	212.580	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	
2056	4	2.548	389.426	158.943	212.518	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0	
2056	5	18.512	124.656	158.869	212.483	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	
2056	6	106.676	17.782	158.773	212.444	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	
2056	7	243.038	0.189	158.737	212.439	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0	
2056	8	254.533	0.000	158.656	212.524	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	
2056	9	176.959	0.696	158.570	212.746	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0	
2056	10	54.558	41.135	158.501	213.136	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	
2056	11	4.977	232.738	158.410	213.718	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0
2056	12	0.063	545.497	158.354	214.504	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	

Indiana Michigan Power Company  
City of Auburn  
Exogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
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Y E A R	M O N T H	b c d 6 5	b h d 5 5	L M _ I M I	f r b m v p	d 1	d 2	d 3	d 4	d 5	d 6	d 7	d 8	d 9	d 10	d 11	j a n u a r y	s e p t e m b e r	d 0	d 1	d 5	d 1	d 5	v a r i a n c e	a m o u n t s
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2057	1	0.000	792.471	158.329	215.972	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2057	2	0.000	885.309	158.291	215.677	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2057	3	0.221	703.560	158.218	215.488	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2057	4	2.548	389.426	158.188	215.377	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2057	5	18.512	124.656	158.113	215.296	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0
2057	6	106.676	17.782	158.012	215.212	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	0	0
2057	7	243.038	0.189	157.981	215.166	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0
2057	8	254.533	0.000	157.899	215.225	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0
2057	9	176.959	0.696	157.810	215.445	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	0
2057	10	54.558	41.135	157.740	215.864	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0
2057	11	4.977	232.738	157.646	216.505	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	0
2057	12	0.063	545.497	157.591	217.385	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0

The SYSLIN Procedure  
Ordinary Least Squares Estimation

Model  
Dependent Variable  
Label

KWH  
KWH  
Energy

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	22	7.767E15	3.531E14	65.67	<.0001
Error	206	1.107E15	5.376E12		
Corrected Total	228	8.875E15			

Root MSE	2318602.68	R-Square	0.87522
Dependent Mean	37723142.8	Adj R-Sq	0.86189
Coeff Var	6.14637		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variable Label
Intercept	1	-2.739E7	10723709	-2.55	0.0114	Intercept
lfrbmvp	1	4490916	1888394	2.38	0.0183	FRB Index-Motor Vehicles and Parts, Log
llm	1	9402048	3190773	2.95	0.0036	Service Area Manufacturing Employment, Log
bhdd55	1	-114.451	1798.481	-0.06	0.9493	Heating Degree Days
bcdd65	1	6734.816	4625.506	1.46	0.1469	Cooling Degree Days
d05on	1	-7308191	563554.8	-12.97	<.0001	Binary Variable 2005 On
d11on	1	2238283	569999.1	3.93	0.0001	Binary Variable 2011 on
jan04	1	39183460	2413868	16.23	<.0001	Binary Variable - January 2004
sep04	1	41464450	2423474	17.11	<.0001	Binary Variable - September 2004
apr20	1	-8758368	2692214	-3.25	0.0013	Binary Variable - April 2020
may20	1	-7348032	2955363	-2.49	0.0137	Binary Variable - May 2020
d1	1	2196271	844941.7	2.60	0.0100	Binary Variable - January



The SYSLIN Procedure  
Ordinary Least Squares Estimation

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variable Label
d2	1	-524707	955825.2	-0.55	0.5836	Binary Variable - February
d3	1	900822.0	813321.9	1.11	0.2693	Binary Variable - March
d4	1	-474200	834904.8	-0.57	0.5707	Binary Variable - April
d5	1	734956.9	1111258	0.66	0.5091	Binary Variable - May
d6	1	915798.9	1344301	0.68	0.4965	Binary Variable - June
d7	1	-204820	1688380	-0.12	0.9036	Binary Variable - July
d8	1	2085866	1735069	1.20	0.2307	Binary Variable - August
d9	1	-220018	1511009	-0.15	0.8844	Binary Variable - September
d10	1	339695.2	1235144	0.28	0.7836	Binary Variable - October
d11	1	-200880	955388.8	-0.21	0.8337	Binary Variable - November
nov15on	1	-2256521	474441.3	-4.76	<.0001	Binary Variable - November 2015 On

Durbin-Watson	1.701453
Number of Observations	229
First-Order Autocorrelation	0.144269

Indiana Michigan Power Company  
City of Auburn  
Model Residuals

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED  
Residual Values

time		Sum
2002.000000	*****	3236049
2002.0833333	*****	-6800187
2002.1666667	*****	-3159457
2002.2500000	*****	-3425574
2002.3333333	*****	13666374
2002.4166667	*	427395
2002.5000000	***	1620144
2002.5833333	*****	3027278
2002.6666667	**	-1030978
2002.7500000	***	1352867
2002.8333333	****	-1981627
2002.9166667	*****	-3917701
2003.0000000	****	1801206
2003.0833333	***	-1691386
2003.1666667	*****	-2342415
2003.2500000	*	-594941
2003.3333333	*	-699951
2003.4166667	****	-2037912
2003.5000000	****	-2159455
2003.5833333	*	-664761
2003.6666667	*****	-3369287
2003.7500000	*****	2375692
2003.8333333	****	-1969045
2003.9166667	**	1193467
2004.0000000		0
2004.0833333	*	-566207
2004.1666667	*****	3358701
2004.2500000	*****	2610570
2004.3333333	***	-1606062
2004.4166667	*****	2602583
2004.5000000		-158167
2004.5833333		-148256
2004.6666667		0
2004.7500000	***	-1695542
2004.8333333	*	-323759
2004.9166667	*****	3070345
2005.0000000	****	-2052725
2005.0833333	*****	4892140
2005.1666667	*	-305433
2005.2500000	*	-528111
2005.3333333	*****	-6123350
2005.4166667	*****	-2984401
2005.5000000	*****	-3504956
2005.5833333	***	-1319493
2005.6666667	*****	3504572
2005.7500000		-51135
2005.8333333	**	1015113
2005.9166667	****	2039881
2006.0000000	***	-1542348

Indiana Power Company  
City of Auburn  
Model Residuals

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
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2006.0833333		*	614659
2006.1666667			132036
2006.2500000			-230818
2006.3333333		*	646780
2006.4166667		*****	5162968
2006.5000000		*	-446886
2006.5833333		*	318353
2006.6666667		****	1802866
2006.7500000		*	-365849
2006.8333333		*****	2426075
2006.9166667		***	1620116
2007.0000000	*****		-2697439
2007.0833333		*****	3580227
2007.1666667		**	796554
2007.2500000		***	1546327
2007.3333333		**	1223952
2007.4166667		*	324959
2007.5000000	**		-973414
2007.5833333			159804
2007.6666667		***	1331920
2007.7500000	****		-1816892
2007.8333333		**	939047
2007.9166667		***	1284089
2008.0000000	****		-1865422
2008.0833333		****	2187149
2008.1666667		**	819636
2008.2500000		*	282835
2008.3333333	**		-1106442
2008.4166667		*	621332
2008.5000000		***	1327576
2008.5833333	***		-1351623
2008.6666667		*	506172
2008.7500000	****		-1840611
2008.8333333		*	-586039
2008.9166667		***	1343480
2009.0000000	*****		-3771876
2009.0833333			73978
2009.1666667	****		-1857812
2009.2500000		**	1217402
2009.3333333	***		-1577095
2009.4166667	***		-1510955
2009.5000000	***		-1739106
2009.5833333	***		-1519304
2009.6666667		**	1101631
2009.7500000		**	955542
2009.8333333		*****	6899384
2009.9166667		*****	7567628
2010.0000000		*****	5171796
2010.0833333	**		-1112761
2010.1666667	*****		-3725201
2010.2500000	**		-824817
2010.3333333	*****		-2859127

Indiana Michigan Power Company  
 City of Auburn  
 Model Residuals

Indiana Michigan Power Company  
 2021 IRP, Volume 3, Exhibit E  
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2010.4166667	*****	-3896210
2010.5000000	*****	-3887670
2010.5833333	*****	-4076227
2010.6666667	*	353040
2010.7500000		225555
2010.8333333	**	-787754
2010.9166667	**	-1177270
2011.0000000	****	-1881630
2011.0833333	**	-782319
2011.1666667		146779
2011.2500000	***	1506161
2011.3333333	*	398172
2011.4166667	**	-968999
2011.5000000	*	-275500
2011.5833333	****	-2235244
2011.6666667	***	1667628
2011.7500000	**	856282
2011.8333333	**	1019570
2011.9166667	*	656088
2012.0000000		-18786
2012.0833333	**	782222
2012.1666667	****	1937136
2012.2500000	*****	2526102
2012.3333333	*****	2803493
2012.4166667	*	256114
2012.5000000	****	1821097
2012.5833333		-35150
2012.6666667		14037
2012.7500000	*****	2657210
2012.8333333	*****	2419492
2012.9166667	***	1433208
2013.0000000		151330
2013.0833333	**	-826991
2013.1666667	*	738897
2013.2500000	*****	3101825
2013.3333333	***	1715843
2013.4166667	*	536605
2013.5000000	**	913848
2013.5833333	**	966069
2013.6666667	***	-1332533
2013.7500000		131663
2013.8333333	***	-1438947
2013.9166667	*****	-4392732
2014.0000000	*	-348052
2014.0833333	*	-475031
2014.1666667	****	1832082
2014.2500000	**	-948327
2014.3333333	***	-1611820
2014.4166667	**	-971855
2014.5000000	*	326783
2014.5833333	*	-558097
2014.6666667	*****	-3955376

Indiana Michigan Power Company  
 City of Auburn  
 Model Residuals

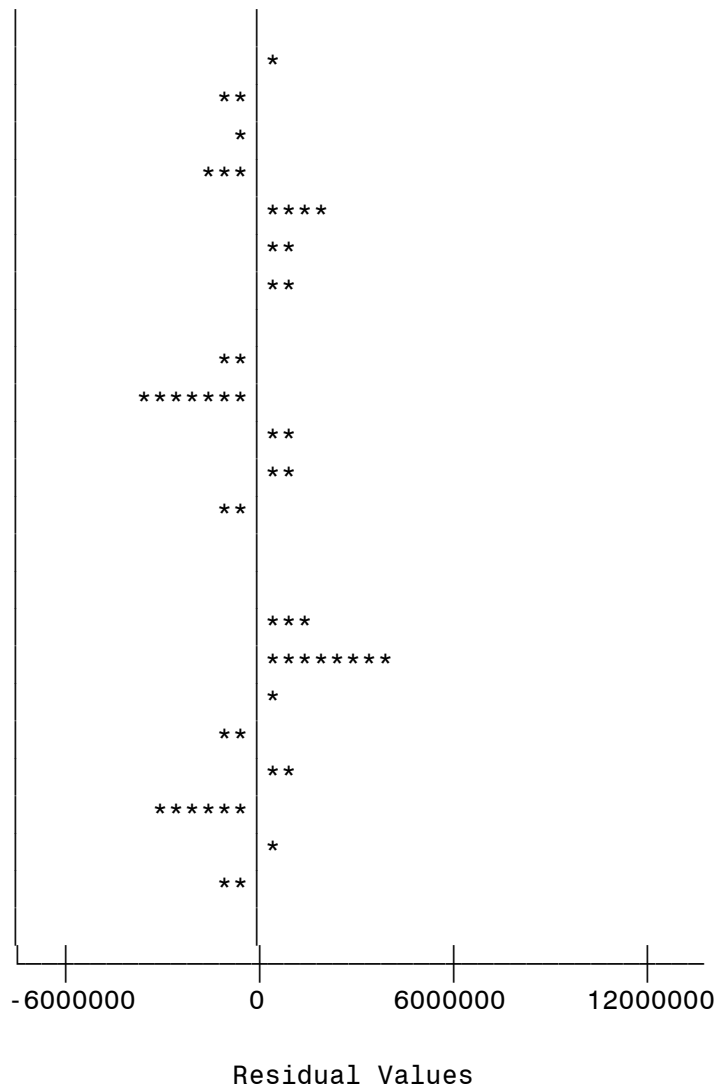
Indiana Michigan Power Company  
 2021 IRP, Volume 3, Exhibit E  
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2014.7500000		-104020
2014.8333333	**	-1069413
2014.9166667	**	-1184456
2015.0000000	*	-297058
2015.0833333	**	-1203651
2015.1666667		56273
2015.2500000	***	-1656513
2015.3333333	*****	-4148643
2015.4166667	*	-560295
2015.5000000	***	1311100
2015.5833333	*	-684068
2015.6666667		60850
2015.7500000	**	-778456
2015.8333333	*	398917
2015.9166667	***	-1512010
2016.0000000	*	578551
2016.0833333	**	934740
2016.1666667	**	777514
2016.2500000	***	1277125
2016.3333333		-206970
2016.4166667	***	1645251
2016.5000000		-179479
2016.5833333	*****	3787547
2016.6666667	**	813772
2016.7500000	*	-657183
2016.8333333	****	-2146705
2016.9166667	**	-956776
2017.0000000	*	603659
2017.0833333	**	-1229754
2017.1666667	****	2074938
2017.2500000	*****	-3964048
2017.3333333	**	-783455
2017.4166667	*	363183
2017.5000000	**	-835603
2017.5833333	*	-531292
2017.6666667	**	-894190
2017.7500000		-95430
2017.8333333	***	-1468746
2017.9166667	****	-1811530
2018.0000000	****	1784325
2018.0833333	*	478325
2018.1666667	*	-507436
2018.2500000	*	-691028
2018.3333333	**	767221
2018.4166667	*	700830
2018.5000000	**	1200600
2018.5833333	*****	3148118
2018.6666667	*	-639498
2018.7500000	****	-2153115
2018.8333333	*	256991
2018.9166667	*****	-2261720
2019.0000000	**	1164809

Indiana Michigan Power Company  
 City of Auburn  
 Model Residuals

Indiana Michigan Power Company  
 2021 IRP, Volume 3, Exhibit E  
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 142489

2019.0833333		
2019.1666667	*	309642
2019.2500000	**	-1204170
2019.3333333	*	-498922
2019.4166667	***	-1431923
2019.5000000	****	1755140
2019.5833333	**	1083455
2019.6666667	**	1110321
2019.7500000		114717
2019.8333333	**	-787261
2019.9166667	*****	-3400801
2020.0000000	**	766581
2020.0833333	**	1002359
2020.1666667	**	-1082434
2020.2500000		0
2020.3333333		0
2020.4166667	***	1721332
2020.5000000	*****	3883946
2020.5833333	*	632891
2020.6666667	**	-1044946
2020.7500000	**	888705
2020.8333333	*****	-2815294
2020.9166667	*	406695
2021.0000000	**	-782971



Indiana Michigan Power Company  
City of Auburn  
Actual and Forecast

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

Year	Energy	Growth Rate
2002	CONFID.	N/A
2003	CONFID.	N/A
2004	CONFID.	N/A
2005	CONFID.	N/A
2006	CONFID.	N/A
2007	CONFID.	N/A
2008	CONFID.	N/A
2009	CONFID.	N/A
2010	CONFID.	N/A
2011	CONFID.	N/A
2012	CONFID.	N/A
2013	CONFID.	N/A
2014	CONFID.	N/A
2015	CONFID.	N/A
2016	CONFID.	N/A
2017	CONFID.	N/A
2018	CONFID.	N/A
2019	CONFID.	N/A
2020	CONFID.	N/A
2021	CONFID.	N/A
2022	CONFID.	N/A
2023	CONFID.	N/A
2024	CONFID.	N/A
2025	CONFID.	N/A
2026	CONFID.	N/A
2027	CONFID.	N/A
2028	CONFID.	N/A
2029	CONFID.	N/A
2030	CONFID.	N/A
2031	CONFID.	N/A
2032	CONFID.	N/A
2033	CONFID.	N/A
2034	CONFID.	N/A
2035	CONFID.	N/A
2036	CONFID.	N/A
2037	CONFID.	N/A
2038	CONFID.	N/A
2039	CONFID.	N/A
2040	CONFID.	N/A
2041	CONFID.	N/A
2042	CONFID.	N/A
2043	CONFID.	N/A
2044	CONFID.	N/A
2045	CONFID.	N/A
2046	CONFID.	N/A
2047	CONFID.	N/A
2048	CONFID.	N/A
2049	CONFID.	N/A
2050	CONFID.	N/A

Indiana Michigan Power Company  
City of Auburn  
Actual and Forecast

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
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Year	Energy	Growth Rate
2051	CONFID.	N/A
2052	CONFID.	N/A
2053	CONFID.	N/A
2054	CONFID.	N/A
2055	CONFID.	N/A
2056	CONFID.	N/A
2057	CONFID.	N/A



Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

The MEANS Procedure

Variable	Label	Mean
YEAR	Year	2032.00
MONTH	Month	6.500000

Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
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YEAR	MONTH	Energy
2007	1	CONFID.
2007	2	CONFID.
2007	3	CONFID.
2007	4	CONFID.
2007	5	CONFID.
2007	6	CONFID.
2007	7	CONDID.
2007	8	CONFID.
2007	9	CONFID.
2007	10	CONFID.
2007	11	CONFID.
2007	12	CONFID.
2008	1	CONFID.
2008	2	CONFID.
2008	3	CONFID.
2008	4	CONFID.
2008	5	CONFID.
2008	6	CONFID.
2008	7	CONDID.
2008	8	CONFID.
2008	9	CONFID.
2008	10	CONFID.
2008	11	CONFID.
2008	12	CONFID.
2009	1	CONFID.
2009	2	CONFID.
2009	3	CONFID.
2009	4	CONFID.
2009	5	CONFID.
2009	6	CONFID.
2009	7	CONDID.
2009	8	CONFID.
2009	9	CONFID.
2009	10	CONFID.
2009	11	CONFID.
2009	12	CONFID.
2010	1	CONFID.
2010	2	CONFID.
2010	3	CONFID.
2010	4	CONFID.
2010	5	CONFID.
2010	6	CONFID.
2010	7	CONDID.
2010	8	CONFID.
2010	9	CONFID.
2010	10	CONFID.
2010	11	CONFID.
2010	12	CONFID.
2011	1	CONFID.
2011	2	CONFID.

Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
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PUBLIC REDACTED

YEAR	MONTH	Energy
2011	3	CONFID.
2011	4	CONFID.
2011	5	CONFID.
2011	6	CONFID.
2011	7	CONDID.
2011	8	CONFID.
2011	9	CONFID.
2011	10	CONFID.
2011	11	CONFID.
2011	12	CONFID.
2012	1	CONFID.
2012	2	CONFID.
2012	3	CONFID.
2012	4	CONFID.
2012	5	CONFID.
2012	6	CONFID.
2012	7	CONDID.
2012	8	CONFID.
2012	9	CONFID.
2012	10	CONFID.
2012	11	CONFID.
2012	12	CONFID.
2013	1	CONFID.
2013	2	CONFID.
2013	3	CONFID.
2013	4	CONFID.
2013	5	CONFID.
2013	6	CONFID.
2013	7	CONDID.
2013	8	CONFID.
2013	9	CONFID.
2013	10	CONFID.
2013	11	CONFID.
2013	12	CONFID.
2014	1	CONFID.
2014	2	CONFID.
2014	3	CONFID.
2014	4	CONFID.
2014	5	CONFID.
2014	6	CONFID.
2014	7	CONDID.
2014	8	CONFID.
2014	9	CONFID.
2014	10	CONFID.
2014	11	CONFID.
2014	12	CONFID.
2015	1	CONFID.
2015	2	CONFID.
2015	3	CONFID.
2015	4	CONFID.

Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
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YEAR	MONTH	Energy
2015	5	CONFID.
2015	6	CONFID.
2015	7	CONDID.
2015	8	CONFID.
2015	9	CONFID.
2015	10	CONFID.
2015	11	CONFID.
2015	12	CONFID.
2016	1	CONFID.
2016	2	CONFID.
2016	3	CONFID.
2016	4	CONFID.
2016	5	CONFID.
2016	6	CONFID.
2016	7	CONDID.
2016	8	CONFID.
2016	9	CONFID.
2016	10	CONFID.
2016	11	CONFID.
2016	12	CONFID.
2017	1	CONFID.
2017	2	CONFID.
2017	3	CONFID.
2017	4	CONFID.
2017	5	CONFID.
2017	6	CONFID.
2017	7	CONDID.
2017	8	CONFID.
2017	9	CONFID.
2017	10	CONFID.
2017	11	CONFID.
2017	12	CONFID.
2018	1	CONFID.
2018	2	CONFID.
2018	3	CONFID.
2018	4	CONFID.
2018	5	CONFID.
2018	6	CONFID.
2018	7	CONDID.
2018	8	CONFID.
2018	9	CONFID.
2018	10	CONFID.
2018	11	CONFID.
2018	12	CONFID.
2019	1	CONFID.
2019	2	CONFID.
2019	3	CONFID.
2019	4	CONFID.
2019	5	CONFID.
2019	6	CONFID.

Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
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YEAR	MONTH	Energy
2019	7	CONDID.
2019	8	CONFID.
2019	9	CONFID.
2019	10	CONFID.
2019	11	CONFID.
2019	12	CONFID.
2020	1	CONFID.
2020	2	CONFID.
2020	3	CONFID.
2020	4	CONFID.
2020	5	CONFID.
2020	6	CONFID.
2020	7	CONDID.
2020	8	CONFID.
2020	9	CONFID.
2020	10	CONFID.
2020	11	CONFID.
2020	12	CONFID.
2021	1	CONFID.
2021	2	CONFID.
2021	3	CONFID.
2021	4	CONFID.
2021	5	CONFID.
2021	6	CONFID.
2021	7	CONDID.
2021	8	CONFID.
2021	9	CONFID.
2021	10	CONFID.
2021	11	CONFID.
2021	12	CONFID.
2022	1	CONFID.
2022	2	CONFID.
2022	3	CONFID.
2022	4	CONFID.
2022	5	CONFID.
2022	6	CONFID.
2022	7	CONDID.
2022	8	CONFID.
2022	9	CONFID.
2022	10	CONFID.
2022	11	CONFID.
2022	12	CONFID.
2023	1	CONFID.
2023	2	CONFID.
2023	3	CONFID.
2023	4	CONFID.
2023	5	CONFID.
2023	6	CONFID.
2023	7	CONDID.
2023	8	CONFID.

Indiana Michigan Power Company  
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Endogenous Variable

Indiana Michigan Power Company  
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YEAR	MONTH	Energy
2023	9	CONFID.
2023	10	CONFID.
2023	11	CONFID.
2023	12	CONFID.
2024	1	CONFID.
2024	2	CONFID.
2024	3	CONFID.
2024	4	CONFID.
2024	5	CONFID.
2024	6	CONFID.
2024	7	CONDID.
2024	8	CONFID.
2024	9	CONFID.
2024	10	CONFID.
2024	11	CONFID.
2024	12	CONFID.
2025	1	CONFID.
2025	2	CONFID.
2025	3	CONFID.
2025	4	CONFID.
2025	5	CONFID.
2025	6	CONFID.
2025	7	CONDID.
2025	8	CONFID.
2025	9	CONFID.
2025	10	CONFID.
2025	11	CONFID.
2025	12	CONFID.
2026	1	CONFID.
2026	2	CONFID.
2026	3	CONFID.
2026	4	CONFID.
2026	5	CONFID.
2026	6	CONFID.
2026	7	CONDID.
2026	8	CONFID.
2026	9	CONFID.
2026	10	CONFID.
2026	11	CONFID.
2026	12	CONFID.
2027	1	CONFID.
2027	2	CONFID.
2027	3	CONFID.
2027	4	CONFID.
2027	5	CONFID.
2027	6	CONFID.
2027	7	CONDID.
2027	8	CONFID.
2027	9	CONFID.
2027	10	CONFID.

Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

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YEAR	MONTH	Energy
2027	11	CONFID.
2027	12	CONFID.
2028	1	CONFID.
2028	2	CONFID.
2028	3	CONFID.
2028	4	CONFID.
2028	5	CONFID.
2028	6	CONFID.
2028	7	CONDID.
2028	8	CONFID.
2028	9	CONFID.
2028	10	CONFID.
2028	11	CONFID.
2028	12	CONFID.
2029	1	CONFID.
2029	2	CONFID.
2029	3	CONFID.
2029	4	CONFID.
2029	5	CONFID.
2029	6	CONFID.
2029	7	CONDID.
2029	8	CONFID.
2029	9	CONFID.
2029	10	CONFID.
2029	11	CONFID.
2029	12	CONFID.
2030	1	CONFID.
2030	2	CONFID.
2030	3	CONFID.
2030	4	CONFID.
2030	5	CONFID.
2030	6	CONFID.
2030	7	CONDID.
2030	8	CONFID.
2030	9	CONFID.
2030	10	CONFID.
2030	11	CONFID.
2030	12	CONFID.
2031	1	CONFID.
2031	2	CONFID.
2031	3	CONFID.
2031	4	CONFID.
2031	5	CONFID.
2031	6	CONFID.
2031	7	CONDID.
2031	8	CONFID.
2031	9	CONFID.
2031	10	CONFID.
2031	11	CONFID.
2031	12	CONFID.

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Endogenous Variable

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YEAR	MONTH	Energy
2032	1	CONFID.
2032	2	CONFID.
2032	3	CONFID.
2032	4	CONFID.
2032	5	CONFID.
2032	6	CONFID.
2032	7	CONDID.
2032	8	CONFID.
2032	9	CONFID.
2032	10	CONFID.
2032	11	CONFID.
2032	12	CONFID.
2033	1	CONFID.
2033	2	CONFID.
2033	3	CONFID.
2033	4	CONFID.
2033	5	CONFID.
2033	6	CONFID.
2033	7	CONDID.
2033	8	CONFID.
2033	9	CONFID.
2033	10	CONFID.
2033	11	CONFID.
2033	12	CONFID.
2034	1	CONFID.
2034	2	CONFID.
2034	3	CONFID.
2034	4	CONFID.
2034	5	CONFID.
2034	6	CONFID.
2034	7	CONDID.
2034	8	CONFID.
2034	9	CONFID.
2034	10	CONFID.
2034	11	CONFID.
2034	12	CONFID.
2035	1	CONFID.
2035	2	CONFID.
2035	3	CONFID.
2035	4	CONFID.
2035	5	CONFID.
2035	6	CONFID.
2035	7	CONDID.
2035	8	CONFID.
2035	9	CONFID.
2035	10	CONFID.
2035	11	CONFID.
2035	12	CONFID.
2036	1	CONFID.
2036	2	CONFID.



Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
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YEAR	MONTH	Energy
2036	3	CONFID.
2036	4	CONFID.
2036	5	CONFID.
2036	6	CONFID.
2036	7	CONDID.
2036	8	CONFID.
2036	9	CONFID.
2036	10	CONFID.
2036	11	CONFID.
2036	12	CONFID.
2037	1	CONFID.
2037	2	CONFID.
2037	3	CONFID.
2037	4	CONFID.
2037	5	CONFID.
2037	6	CONFID.
2037	7	CONDID.
2037	8	CONFID.
2037	9	CONFID.
2037	10	CONFID.
2037	11	CONFID.
2037	12	CONFID.
2038	1	CONFID.
2038	2	CONFID.
2038	3	CONFID.
2038	4	CONFID.
2038	5	CONFID.
2038	6	CONFID.
2038	7	CONDID.
2038	8	CONFID.
2038	9	CONFID.
2038	10	CONFID.
2038	11	CONFID.
2038	12	CONFID.
2039	1	CONFID.
2039	2	CONFID.
2039	3	CONFID.
2039	4	CONFID.
2039	5	CONFID.
2039	6	CONFID.
2039	7	CONDID.
2039	8	CONFID.
2039	9	CONFID.
2039	10	CONFID.
2039	11	CONFID.
2039	12	CONFID.
2040	1	CONFID.
2040	2	CONFID.
2040	3	CONFID.
2040	4	CONFID.

Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
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PUBLIC REDACTED

YEAR	MONTH	Energy
2040	5	CONFID.
2040	6	CONFID.
2040	7	CONDID.
2040	8	CONFID.
2040	9	CONFID.
2040	10	CONFID.
2040	11	CONFID.
2040	12	CONFID.
2041	1	CONFID.
2041	2	CONFID.
2041	3	CONFID.
2041	4	CONFID.
2041	5	CONFID.
2041	6	CONFID.
2041	7	CONDID.
2041	8	CONFID.
2041	9	CONFID.
2041	10	CONFID.
2041	11	CONFID.
2041	12	CONFID.
2042	1	CONFID.
2042	2	CONFID.
2042	3	CONFID.
2042	4	CONFID.
2042	5	CONFID.
2042	6	CONFID.
2042	7	CONDID.
2042	8	CONFID.
2042	9	CONFID.
2042	10	CONFID.
2042	11	CONFID.
2042	12	CONFID.
2043	1	CONFID.
2043	2	CONFID.
2043	3	CONFID.
2043	4	CONFID.
2043	5	CONFID.
2043	6	CONFID.
2043	7	CONDID.
2043	8	CONFID.
2043	9	CONFID.
2043	10	CONFID.
2043	11	CONFID.
2043	12	CONFID.
2044	1	CONFID.
2044	2	CONFID.
2044	3	CONFID.
2044	4	CONFID.
2044	5	CONFID.
2044	6	CONFID.

Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
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YEAR	MONTH	Energy
2044	7	CONDID.
2044	8	CONFID.
2044	9	CONFID.
2044	10	CONFID.
2044	11	CONFID.
2044	12	CONFID.
2045	1	CONFID.
2045	2	CONFID.
2045	3	CONFID.
2045	4	CONFID.
2045	5	CONFID.
2045	6	CONFID.
2045	7	CONDID.
2045	8	CONFID.
2045	9	CONFID.
2045	10	CONFID.
2045	11	CONFID.
2045	12	CONFID.
2046	1	CONFID.
2046	2	CONFID.
2046	3	CONFID.
2046	4	CONFID.
2046	5	CONFID.
2046	6	CONFID.
2046	7	CONDID.
2046	8	CONFID.
2046	9	CONFID.
2046	10	CONFID.
2046	11	CONFID.
2046	12	CONFID.
2047	1	CONFID.
2047	2	CONFID.
2047	3	CONFID.
2047	4	CONFID.
2047	5	CONFID.
2047	6	CONFID.
2047	7	CONDID.
2047	8	CONFID.
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2047	10	CONFID.
2047	11	CONFID.
2047	12	CONFID.
2048	1	CONFID.
2048	2	CONFID.
2048	3	CONFID.
2048	4	CONFID.
2048	5	CONFID.
2048	6	CONFID.
2048	7	CONDID.
2048	8	CONFID.

Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
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YEAR	MONTH	Energy
2048	9	CONFID.
2048	10	CONFID.
2048	11	CONFID.
2048	12	CONFID.
2049	1	CONFID.
2049	2	CONFID.
2049	3	CONFID.
2049	4	CONFID.
2049	5	CONFID.
2049	6	CONFID.
2049	7	CONDID.
2049	8	CONFID.
2049	9	CONFID.
2049	10	CONFID.
2049	11	CONFID.
2049	12	CONFID.
2050	1	CONFID.
2050	2	CONFID.
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2050	4	CONFID.
2050	5	CONFID.
2050	6	CONFID.
2050	7	CONDID.
2050	8	CONFID.
2050	9	CONFID.
2050	10	CONFID.
2050	11	CONFID.
2050	12	CONFID.
2051	1	CONFID.
2051	2	CONFID.
2051	3	CONFID.
2051	4	CONFID.
2051	5	CONFID.
2051	6	CONFID.
2051	7	CONDID.
2051	8	CONFID.
2051	9	CONFID.
2051	10	CONFID.
2051	11	CONFID.
2051	12	CONFID.
2052	1	CONFID.
2052	2	CONFID.
2052	3	CONFID.
2052	4	CONFID.
2052	5	CONFID.
2052	6	CONFID.
2052	7	CONDID.
2052	8	CONFID.
2052	9	CONFID.
2052	10	CONFID.

Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
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YEAR	MONTH	Energy
2052	11	CONFID.
2052	12	CONFID.
2053	1	CONFID.
2053	2	CONFID.
2053	3	CONFID.
2053	4	CONFID.
2053	5	CONFID.
2053	6	CONFID.
2053	7	CONDID.
2053	8	CONFID.
2053	9	CONFID.
2053	10	CONFID.
2053	11	CONFID.
2053	12	CONFID.
2054	1	CONFID.
2054	2	CONFID.
2054	3	CONFID.
2054	4	CONFID.
2054	5	CONFID.
2054	6	CONFID.
2054	7	CONDID.
2054	8	CONFID.
2054	9	CONFID.
2054	10	CONFID.
2054	11	CONFID.
2054	12	CONFID.
2055	1	CONFID.
2055	2	CONFID.
2055	3	CONFID.
2055	4	CONFID.
2055	5	CONFID.
2055	6	CONFID.
2055	7	CONDID.
2055	8	CONFID.
2055	9	CONFID.
2055	10	CONFID.
2055	11	CONFID.
2055	12	CONFID.
2056	1	CONFID.
2056	2	CONFID.
2056	3	CONFID.
2056	4	CONFID.
2056	5	CONFID.
2056	6	CONFID.
2056	7	CONDID.
2056	8	CONFID.
2056	9	CONFID.
2056	10	CONFID.
2056	11	CONFID.
2056	12	CONFID.

Indiana Michigan Power Company  
Cooperative Energy Sales  
Endogenous Variable

Indiana Michigan Power Company  
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YEAR	MONTH	Energy
2057	1	CONFID.
2057	2	CONFID.
2057	3	CONFID.
2057	4	CONFID.
2057	5	CONFID.
2057	6	CONFID.
2057	7	CONDID.
2057	8	CONFID.
2057	9	CONFID.
2057	10	CONFID.
2057	11	CONFID.
2057	12	CONFID.

Indiana Michigan Power Company  
 Cooperative Energy Sales  
 Exogenous Variables

Indiana Michigan Power Company  
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The MEANS Procedure

Variable	Label	Mean
YEAR	Year	2032.00
MONTH	Month	6.5000000
gdp_imi	Service Area Gross Regional Product	106423.50
jand07on	Binary Variable - January 2007 On	0.0833333
febd07on	Binary Variable - February 2007 On	0.0833333
mard07on	Binary Variable - March 2007 On	0.0833333
aprd07on	Binary Variable - April 2007 On	0.0833333
mayd07on	Binary Variable - May 2007 On	0.0833333
jund07on	Binary Variable - June 2007 On	0.0833333
juld07on	Binary Variable - July 2007 On	0.0833333
augd07on	Binary Variable - August 2007 On	0.0833333
sepd07on	Binary Variable - September 2007 On	0.0833333
octd07on	Binary Variable - October 2007 On	0.0833333
novd07on	Binary Variable - November 2007 On	0.0833333
d16on	Binary Variable - 2016 On	0.8235294
bhdd55d70	Heating Degree Days 2007 On	311.0464513
bcdd65d70	Cooling Degree Days 2007 On	73.2442593
d18on	Binary Variable - 2018 On	0.7843137
dec17	Binary Variable - December 2017	0.0016340
jan18	Binary Variable - January 2018	0.0016340

Indiana Michigan Power Company  
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Exogenous Variables

Indiana Michigan Power Company  
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Y E A R	M O N T H	g d p — i m i	j	f	m	a	m	j	j	a	s	o	n	b	b				
			a	e	a	p	a	u	u	u	e	c	o	h	c	d	d	d	d
			n	b	r	r	y	n	l	g	p	t	v	d	d				
			0	0	0	0	0	0	0	0	0	0	0	1	5	6	d	d	j
			7	7	7	7	7	7	7	7	7	7	7	6	5	5	1	e	a
			o	o	o	o	o	o	o	o	o	o	o	o	7	7	o	1	1
			n	n	n	n	n	n	n	n	n	n	n	n	0	0	n	7	8
2007	1	72503.88	1	0	0	0	0	0	0	0	0	0	0	0	544.00	0.000	0	0	0
2007	2	72514.07	0	1	0	0	0	0	0	0	0	0	0	0	987.17	0.000	0	0	0
2007	3	72525.82	0	0	1	0	0	0	0	0	0	0	0	0	906.10	0.065	0	0	0
2007	4	72543.89	0	0	0	1	0	0	0	0	0	0	0	0	340.81	4.123	0	0	0
2007	5	72572.58	0	0	0	0	1	0	0	0	0	0	0	0	129.43	20.781	0	0	0
2007	6	72616.27	0	0	0	0	0	1	0	0	0	0	0	0	8.82	146.203	0	0	0
2007	7	72678.99	0	0	0	0	0	0	1	0	0	0	0	0	0.00	215.090	0	0	0
2007	8	72757.34	0	0	0	0	0	0	0	1	0	0	0	0	0.00	255.523	0	0	0
2007	9	72834.91	0	0	0	0	0	0	0	0	1	0	0	0	1.57	213.732	0	0	0
2007	10	72898.08	0	0	0	0	0	0	0	0	0	1	0	0	15.82	105.017	0	0	0
2007	11	72932.36	0	0	0	0	0	0	0	0	0	0	1	0	192.89	22.286	0	0	0
2007	12	72922.65	0	0	0	0	0	0	0	0	0	0	0	0	608.47	0.000	0	0	0
2008	1	72852.92	1	0	0	0	0	0	0	0	0	0	0	0	753.95	0.000	0	0	0
2008	2	72713.87	0	1	0	0	0	0	0	0	0	0	0	0	903.12	0.000	0	0	0
2008	3	72488.87	0	0	1	0	0	0	0	0	0	0	0	0	857.69	0.000	0	0	0
2008	4	72159.34	0	0	0	1	0	0	0	0	0	0	0	0	453.22	0.245	0	0	0
2008	5	71712.13	0	0	0	0	1	0	0	0	0	0	0	0	109.89	9.654	0	0	0
2008	6	71133.89	0	0	0	0	0	1	0	0	0	0	0	0	25.40	95.641	0	0	0
2008	7	70410.32	0	0	0	0	0	0	1	0	0	0	0	0	0.03	185.375	0	0	0
2008	8	69537.04	0	0	0	0	0	0	0	1	0	0	0	0	0.00	234.333	0	0	0
2008	9	68575.44	0	0	0	0	0	0	0	0	1	0	0	0	0.00	174.134	0	0	0
2008	10	67547.15	0	0	0	0	0	0	0	0	0	1	0	0	29.14	47.354	0	0	0
2008	11	66487.98	0	0	0	0	0	0	0	0	0	0	1	0	234.86	3.076	0	0	0
2008	12	65433.02	0	0	0	0	0	0	0	0	0	0	0	0	702.59	0.000	0	0	0
2009	1	64401.38	1	0	0	0	0	0	0	0	0	0	0	0	910.79	0.000	0	0	0
2009	2	63490.46	0	1	0	0	0	0	0	0	0	0	0	0	1077.43	0.000	0	0	0
2009	3	62683.60	0	0	1	0	0	0	0	0	0	0	0	0	650.77	0.000	0	0	0
2009	4	61989.53	0	0	0	1	0	0	0	0	0	0	0	0	336.81	0.540	0	0	0
2009	5	61475.17	0	0	0	0	1	0	0	0	0	0	0	0	129.99	27.032	0	0	0
2009	6	61173.64	0	0	0	0	0	1	0	0	0	0	0	0	14.02	68.135	0	0	0
2009	7	61120.18	0	0	0	0	0	0	1	0	0	0	0	0	0.00	192.559	0	0	0
2009	8	61319.39	0	0	0	0	0	0	0	1	0	0	0	0	0.00	154.679	0	0	0
2009	9	61732.10	0	0	0	0	0	0	0	0	1	0	0	0	0.00	111.039	0	0	0
2009	10	62325.04	0	0	0	0	0	0	0	0	0	1	0	0	74.96	33.609	0	0	0
2009	11	63060.46	0	0	0	0	0	0	0	0	0	0	1	0	203.93	0.000	0	0	0
2009	12	63903.75	0	0	0	0	0	0	0	0	0	0	0	0	475.47	0.000	0	0	0
2010	1	64833.43	1	0	0	0	0	0	0	0	0	0	0	0	901.58	0.000	0	0	0
2010	2	65752.00	0	1	0	0	0	0	0	0	0	0	0	0	924.24	0.000	0	0	0
2010	3	66670.48	0	0	1	0	0	0	0	0	0	0	0	0	702.20	0.000	0	0	0
2010	4	67585.59	0	0	0	1	0	0	0	0	0	0	0	0	235.85	8.492	0	0	0
2010	5	68429.44	0	0	0	0	1	0	0	0	0	0	0	0	55.26	19.652	0	0	0
2010	6	69167.01	0	0	0	0	0	1	0	0	0	0	0	0	11.26	180.237	0	0	0



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Y E A R	M O N T H	g d p - i m i	j	f	m	a	m	j	j	a	s	o	n	b	b	d	d	j	
			a	e	a	p	a	u	u	u	e	c	v	h	c				
2010	7	69762.87	0	0	0	0	0	0	1	0	0	0	0	0	0.00	323.478	0	0	0
2010	8	70213.44	0	0	0	0	0	0	0	1	0	0	0	0	0.00	363.780	0	0	0
2010	9	70518.93	0	0	0	0	0	0	0	0	1	0	0	0	0.00	222.143	0	0	0
2010	10	70704.04	0	0	0	0	0	0	0	0	0	1	0	0	25.89	64.813	0	0	0
2010	11	70787.20	0	0	0	0	0	0	0	0	0	0	1	0	200.35	5.809	0	0	0
2010	12	70784.59	0	0	0	0	0	0	0	0	0	0	0	0	650.98	0.000	0	0	0
2011	1	70712.49	1	0	0	0	0	0	0	0	0	0	0	0	958.16	0.000	0	0	0
2011	2	70595.32	0	1	0	0	0	0	0	0	0	0	0	0	1033.91	0.000	0	0	0
2011	3	70445.84	0	0	1	0	0	0	0	0	0	0	0	0	705.44	0.000	0	0	0
2011	4	70274.71	0	0	0	1	0	0	0	0	0	0	0	0	408.52	2.094	0	0	0
2011	5	70103.46	0	0	0	0	1	0	0	0	0	0	0	0	126.11	17.099	0	0	0
2011	6	69949.21	0	0	0	0	0	1	0	0	0	0	0	0	17.62	154.744	0	0	0
2011	7	69828.66	0	0	0	0	0	0	1	0	0	0	0	0	0.00	286.318	0	0	0
2011	8	69747.50	0	0	0	0	0	0	0	1	0	0	0	0	0.00	410.578	0	0	0
2011	9	69704.90	0	0	0	0	0	0	0	0	1	0	0	0	2.70	193.115	0	0	0
2011	10	69695.02	0	0	0	0	0	0	0	0	0	1	0	0	32.45	25.984	0	0	0
2011	11	69713.07	0	0	0	0	0	0	0	0	0	0	1	0	182.58	0.802	0	0	0
2011	12	69754.86	0	0	0	0	0	0	0	0	0	0	0	0	432.00	0.000	0	0	0
2012	1	69816.86	1	0	0	0	0	0	0	0	0	0	0	0	648.72	0.000	0	0	0
2012	2	69891.23	0	1	0	0	0	0	0	0	0	0	0	0	741.32	0.000	0	0	0
2012	3	69975.59	0	0	1	0	0	0	0	0	0	0	0	0	523.17	6.578	0	0	0
2012	4	70067.04	0	0	0	1	0	0	0	0	0	0	0	0	138.41	21.239	0	0	0
2012	5	70159.85	0	0	0	0	1	0	0	0	0	0	0	0	104.26	27.097	0	0	0
2012	6	70249.58	0	0	0	0	0	1	0	0	0	0	0	0	3.47	153.615	0	0	0
2012	7	70331.95	0	0	0	0	0	0	1	0	0	0	0	0	0.33	370.603	0	0	0
2012	8	70407.15	0	0	0	0	0	0	0	1	0	0	0	0	0.00	322.644	0	0	0
2012	9	70475.04	0	0	0	0	0	0	0	0	1	0	0	0	2.24	158.442	0	0	0
2012	10	70539.48	0	0	0	0	0	0	0	0	0	1	0	0	74.66	23.415	0	0	0
2012	11	70603.10	0	0	0	0	0	0	0	0	0	0	1	0	276.53	2.291	0	0	0
2012	12	70668.51	0	0	0	0	0	0	0	0	0	0	0	0	467.80	0.000	0	0	0
2013	1	70739.49	1	0	0	0	0	0	0	0	0	0	0	0	736.04	0.000	0	0	0
2013	2	70813.66	0	1	0	0	0	0	0	0	0	0	0	0	846.44	0.000	0	0	0
2013	3	70896.91	0	0	1	0	0	0	0	0	0	0	0	0	763.23	0.000	0	0	0
2013	4	70994.76	0	0	0	1	0	0	0	0	0	0	0	0	522.37	0.000	0	0	0
2013	5	71107.36	0	0	0	0	1	0	0	0	0	0	0	0	134.27	22.057	0	0	0
2013	6	71237.14	0	0	0	0	0	1	0	0	0	0	0	0	13.76	117.142	0	0	0
2013	7	71386.70	0	0	0	0	0	0	1	0	0	0	0	0	0.00	237.671	0	0	0
2013	8	71558.48	0	0	0	0	0	0	0	1	0	0	0	0	0.00	187.421	0	0	0
2013	9	71743.72	0	0	0	0	0	0	0	0	1	0	0	0	0.64	183.968	0	0	0
2013	10	71941.64	0	0	0	0	0	0	0	0	0	1	0	0	21.66	67.350	0	0	0
2013	11	72148.61	0	0	0	0	0	0	0	0	0	0	1	0	267.71	6.005	0	0	0
2013	12	72361.20	0	0	0	0	0	0	0	0	0	0	0	0	668.46	0.000	0	0	0

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Y E A R	M O N T H	g d p - i m i	j	f	m	a	m	j	j	a	s	o	n	b	b	d	d	j	
			a	e	a	p	a	u	u	u	e	c	v	h	c				
2014	1	72579.39	1	0	0	0	0	0	0	0	0	0	0	0	955.41	0.000	0	0	0
2014	2	72785.70	0	1	0	0	0	0	0	0	0	0	0	0	1173.96	0.000	0	0	0
2014	3	72987.38	0	0	1	0	0	0	0	0	0	0	0	0	1016.01	0.000	0	0	0
2014	4	73187.80	0	0	0	1	0	0	0	0	0	0	0	0	524.45	0.000	0	0	0
2014	5	73376.39	0	0	0	0	1	0	0	0	0	0	0	0	128.47	15.561	0	0	0
2014	6	73549.80	0	0	0	0	0	1	0	0	0	0	0	0	26.03	119.646	0	0	0
2014	7	73704.51	0	0	0	0	0	0	1	0	0	0	0	0	0.00	223.779	0	0	0
2014	8	73841.75	0	0	0	0	0	0	0	1	0	0	0	0	0.00	143.601	0	0	0
2014	9	73958.65	0	0	0	0	0	0	0	0	1	0	0	0	1.67	179.452	0	0	0
2014	10	74059.24	0	0	0	0	0	0	0	0	0	1	0	0	46.68	18.752	0	0	0
2014	11	74145.50	0	0	0	0	0	0	0	0	0	0	1	0	283.93	0.360	0	0	0
2014	12	74219.07	0	0	0	0	0	0	0	0	0	0	0	0	669.60	0.000	0	0	0
2015	1	74282.81	1	0	0	0	0	0	0	0	0	0	0	0	832.76	0.000	0	0	0
2015	2	74334.88	0	1	0	0	0	0	0	0	0	0	0	0	1002.44	0.000	0	0	0
2015	3	74380.06	0	0	1	0	0	0	0	0	0	0	0	0	1039.32	0.000	0	0	0
2015	4	74421.45	0	0	0	1	0	0	0	0	0	0	0	0	429.08	0.000	0	0	0
2015	5	74459.13	0	0	0	0	1	0	0	0	0	0	0	0	113.38	30.664	0	0	0
2015	6	74494.91	0	0	0	0	0	1	0	0	0	0	0	0	11.49	127.042	0	0	0
2015	7	74530.58	0	0	0	0	0	0	1	0	0	0	0	0	0.08	166.165	0	0	0
2015	8	74568.29	0	0	0	0	0	0	0	1	0	0	0	0	0.00	232.173	0	0	0
2015	9	74608.07	0	0	0	0	0	0	0	0	1	0	0	0	0.00	181.628	0	0	0
2015	10	74651.77	0	0	0	0	0	0	0	0	0	1	0	0	21.81	60.166	0	0	0
2015	11	74700.57	0	0	0	0	0	0	0	0	0	0	1	0	140.82	1.587	0	0	0
2015	12	74755.73	0	0	0	0	0	0	0	0	0	0	0	0	394.07	0.000	0	0	0
2016	1	74819.53	1	0	0	0	0	0	0	0	0	0	0	1	597.23	0.000	0	0	0
2016	2	74889.86	0	1	0	0	0	0	0	0	0	0	0	1	829.99	0.000	0	0	0
2016	3	74969.97	0	0	1	0	0	0	0	0	0	0	0	1	567.38	0.000	0	0	0
2016	4	75062.44	0	0	0	1	0	0	0	0	0	0	0	1	306.12	0.000	0	0	0
2016	5	75167.39	0	0	0	0	1	0	0	0	0	0	0	1	123.43	1.849	0	0	0
2016	6	75285.90	0	0	0	0	0	1	0	0	0	0	0	1	21.81	134.029	0	0	0
2016	7	75419.24	0	0	0	0	0	0	1	0	0	0	0	1	0.00	224.924	0	0	0
2016	8	75569.74	0	0	0	0	0	0	0	1	0	0	0	1	0.00	332.380	0	0	0
2016	9	75731.14	0	0	0	0	0	0	0	0	1	0	0	1	0.00	249.976	0	0	0
2016	10	75904.35	0	0	0	0	0	0	0	0	0	1	0	1	7.45	97.539	0	0	0
2016	11	76087.73	0	0	0	0	0	0	0	0	0	0	1	1	122.21	16.412	0	0	0
2016	12	76279.90	0	0	0	0	0	0	0	0	0	0	0	1	543.87	0.655	0	0	0
2017	1	76482.59	1	0	0	0	0	0	0	0	0	0	0	1	805.30	0.000	0	0	0
2017	2	76680.91	0	1	0	0	0	0	0	0	0	0	0	1	615.97	0.000	0	0	0
2017	3	76883.27	0	0	1	0	0	0	0	0	0	0	0	1	470.74	0.000	0	0	0
2017	4	77095.17	0	0	0	1	0	0	0	0	0	0	0	1	332.02	4.173	0	0	0
2017	5	77308.34	0	0	0	0	1	0	0	0	0	0	0	1	86.59	27.571	0	0	0
2017	6	77521.28	0	0	0	0	0	1	0	0	0	0	0	1	16.97	105.426	0	0	0

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Y E A R	M O N T H	g d p - i m i	j	f	m	a	m	j	j	a	s	o	n	b	b	d	d	j	
			a	e	a	p	a	u	u	u	e	c	o	h	c				
			d	d	d	d	d	d	d	d	d	d	d	d	d				
			0	0	0	0	0	0	0	0	0	0	0	1	5	5	1	e	a
			7	7	7	7	7	7	7	7	7	7	7	6	d	d	8	c	n
			o	o	o	o	o	o	o	o	o	o	o	o	7	7	o	1	1
			n	n	n	n	n	n	n	n	n	n	n	n	0	0	n	7	8
2017	7	77732.54	0	0	0	0	0	0	1	0	0	0	0	1	0.00	230.946	0	0	0
2017	8	77944.80	0	0	0	0	0	0	0	1	0	0	0	1	0.00	215.761	0	0	0
2017	9	78151.31	0	0	0	0	0	0	0	0	1	0	0	1	0.00	104.052	0	0	0
2017	10	78355.67	0	0	0	0	0	0	0	0	0	1	0	1	3.99	109.402	0	0	0
2017	11	78558.06	0	0	0	0	0	0	0	0	0	0	1	1	238.29	11.798	0	0	0
2017	12	78758.61	0	0	0	0	0	0	0	0	0	0	0	1	506.33	0.000	0	1	0
2018	1	78960.77	1	0	0	0	0	0	0	0	0	0	0	1	1011.93	0.000	1	0	1
2018	2	79151.73	0	1	0	0	0	0	0	0	0	0	0	1	845.60	0.000	1	0	0
2018	3	79341.43	0	0	1	0	0	0	0	0	0	0	0	1	583.35	0.000	1	0	0
2018	4	79536.43	0	0	0	1	0	0	0	0	0	0	0	1	514.84	0.425	1	0	0
2018	5	79730.42	0	0	0	0	1	0	0	0	0	0	0	1	176.70	23.612	1	0	0
2018	6	79923.58	0	0	0	0	0	1	0	0	0	0	0	1	1.87	187.339	1	0	0
2018	7	80115.85	0	0	0	0	0	0	1	0	0	0	0	1	0.00	299.899	1	0	0
2018	8	80307.71	0	0	0	0	0	0	0	1	0	0	0	1	0.00	251.580	1	0	0
2018	9	80487.58	0	0	0	0	0	0	0	0	1	0	0	1	0.00	259.663	1	0	0
2018	10	80652.83	0	0	0	0	0	0	0	0	0	1	0	1	38.89	129.398	1	0	0
2018	11	80798.03	0	0	0	0	0	0	0	0	0	0	1	1	302.93	18.277	1	0	0
2018	12	80917.29	0	0	0	0	0	0	0	0	0	0	0	1	601.89	0.000	1	0	0
2019	1	81006.32	1	0	0	0	0	0	0	0	0	0	0	1	614.13	0.000	1	0	0
2019	2	81055.83	0	1	0	0	0	0	0	0	0	0	0	1	901.60	0.000	1	0	0
2019	3	81064.79	0	0	1	0	0	0	0	0	0	0	0	1	750.78	0.000	1	0	0
2019	4	81027.22	0	0	0	1	0	0	0	0	0	0	0	1	390.24	0.000	1	0	0
2019	5	80935.66	0	0	0	0	1	0	0	0	0	0	0	1	114.51	6.251	1	0	0
2019	6	80785.09	0	0	0	0	0	1	0	0	0	0	0	1	19.24	99.748	1	0	0
2019	7	80569.92	0	0	0	0	0	0	1	0	0	0	0	1	0.00	305.266	1	0	0
2019	8	80289.58	0	0	0	0	0	0	0	1	0	0	0	1	0.00	289.885	1	0	0
2019	9	79966.66	0	0	0	0	0	0	0	0	1	0	0	1	0.00	160.946	1	0	0
2019	10	79611.27	0	0	0	0	0	0	0	0	0	1	0	1	22.53	102.170	1	0	0
2019	11	79238.12	0	0	0	0	0	0	0	0	0	0	1	1	297.95	5.956	1	0	0
2019	12	78861.52	0	0	0	0	0	0	0	0	0	0	0	1	607.70	0.000	1	0	0
2020	1	78490.10	1	0	0	0	0	0	0	0	0	0	0	1	605.26	0.000	1	0	0
2020	2	78155.54	0	1	0	0	0	0	0	0	0	0	0	1	701.28	0.000	1	0	0
2020	3	77859.98	0	0	1	0	0	0	0	0	0	0	0	1	655.79	0.000	1	0	0
2020	4	77612.78	0	0	0	1	0	0	0	0	0	0	0	1	354.86	0.000	1	0	0
2020	5	77434.43	0	0	0	0	1	0	0	0	0	0	0	1	204.78	3.845	1	0	0
2020	6	77338.55	0	0	0	0	0	1	0	0	0	0	0	1	34.79	127.696	1	0	0
2020	7	77339.56	0	0	0	0	0	0	1	0	0	0	0	1	0.00	297.919	1	0	0
2020	8	77440.92	0	0	0	0	0	0	0	1	0	0	0	1	0.00	278.218	1	0	0
2020	9	77628.98	0	0	0	0	0	0	0	0	1	0	0	1	0.80	179.763	1	0	0
2020	10	77893.71	0	0	0	0	0	0	0	0	0	1	0	1	48.01	22.810	1	0	0
2020	11	78222.83	0	0	0	0	0	0	0	0	0	0	1	1	212.98	2.324	1	0	0
2020	12	78605.47	0	0	0	0	0	0	0	0	0	0	0	1	461.60	0.916	1	0	0

Indiana Michigan Power Company Cooperative Energy Sales Exogenous Variables														Indiana Michigan Power Company 2021 IRP, Volume 3, Exhibit E PUBLIC REDACTED					
Y E A R	M O N T H	g d p — i m i	j	f	m	a	m	j	j	a	s	o	n	b	b	d	d	j	
			a	e	r	r	y	u	u	u	e	c	v	h	c				
			0	0	0	0	0	0	0	0	0	0	0	1	5	6	1	1	1
			7	7	7	7	7	7	7	7	7	7	7	6	5	5	8	1	1
			0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	7	8
2021	1	79036.95	1	0	0	0	0	0	0	0	0	0	0	1	689.156	0.000	1	0	0
2021	2	79476.39	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2021	3	79933.83	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2021	4	80414.16	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2021	5	80890.75	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2021	6	81352.20	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2021	7	81787.28	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2021	8	82197.85	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2021	9	82572.80	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2021	10	82921.58	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2021	11	83247.26	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2021	12	83552.42	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2022	1	83844.59	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2022	2	84108.50	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2022	3	84360.93	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2022	4	84612.86	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2022	5	84858.20	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2022	6	85099.81	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2022	7	85340.32	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2022	8	85584.82	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2022	9	85824.84	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2022	10	86063.55	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2022	11	86300.24	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2022	12	86534.12	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2023	1	86768.21	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2023	2	86986.91	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2023	3	87200.82	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2023	4	87416.38	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2023	5	87625.42	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2023	6	87827.25	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2023	7	88021.09	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2023	8	88209.93	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2023	9	88388.31	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2023	10	88559.98	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2023	11	88725.68	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2023	12	88886.07	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2024	1	89044.39	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2024	2	89193.78	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2024	3	89340.03	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2024	4	89486.24	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2024	5	89630.60	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2024	6	89773.82	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0

Indiana Michigan Power Company Cooperative Energy Sales Exogenous Variables															Indiana Michigan Power Company 2021 IRP, Volume 3, Exhibit E PUBLIC REDACTED				
Y E A R	M O N T H	g d p — i m i	j	f	m	a	m	j	j	a	s	o	n	b	b	d	d	j	
			a	e	a	p	a	u	u	u	e	c	o	h	c				
			d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d
			0	0	0	0	0	0	0	0	0	0	0	1	5	5	1	e	a
			7	7	7	7	7	7	7	7	7	7	7	6	d	d	8	c	n
			o	o	o	o	o	o	o	o	o	o	o	o	7	7	o	1	1
			n	n	n	n	n	n	n	n	n	n	n	n	0	0	n	7	8
2024	7	89916.56	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2024	8	90061.39	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2024	9	90203.45	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2024	10	90344.82	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2024	11	90485.29	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2024	12	90624.60	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2025	1	90764.78	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2025	2	90896.63	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2025	3	91026.72	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2025	4	91159.18	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2025	5	91289.30	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2025	6	91416.88	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2025	7	91541.68	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2025	8	91665.78	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2025	9	91785.63	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2025	10	91903.69	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2025	11	92020.46	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2025	12	92136.38	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2026	1	92253.82	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2026	2	92365.67	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2026	3	92478.03	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2026	4	92595.18	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2026	5	92713.80	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2026	6	92834.35	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2026	7	92957.28	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2026	8	93084.93	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2026	9	93213.21	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2026	10	93344.20	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2026	11	93477.91	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2026	12	93614.37	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2027	1	93755.89	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2027	2	93893.21	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2027	3	94033.20	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2027	4	94180.69	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2027	5	94331.03	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2027	6	94484.24	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2027	7	94640.33	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2027	8	94801.75	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2027	9	94962.94	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2027	10	95126.13	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2027	11	95290.95	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2027	12	95457.03	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0

Indiana Michigan Power Company  
Cooperative Energy Sales  
Exogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

Year	Month	g	j	f	m	a	m	j	j	a	s	o	n	b	b	PUBLIC REDACTED			
			d	n	b	r	r	y	n	l	g	p	t	v	d	c	d	d	j
Y	O	—	0	0	0	0	0	0	0	0	0	0	0	5	5	1	1	1	
E	N	i	7	7	7	7	7	7	7	7	7	7	7	6	5	8	8	8	
A	T	m	o	o	o	o	o	o	o	o	o	o	o	7	7	o	o	o	
R	H	i	n	n	n	n	n	n	n	n	n	n	n	0	0	n	7	8	
2028	1	95626.74	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2028	2	95791.49	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2028	3	95956.40	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2028	4	96123.86	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2028	5	96290.74	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2028	6	96456.70	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2028	7	96621.37	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2028	8	96787.29	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2028	9	96949.23	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2028	10	97109.97	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2028	11	97269.65	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2028	12	97428.39	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2029	1	97588.90	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2029	2	97740.99	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2029	3	97892.53	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2029	4	98048.77	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2029	5	98204.68	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2029	6	98360.39	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2029	7	98516.01	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2029	8	98674.15	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2029	9	98829.70	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2029	10	98985.21	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2029	11	99140.64	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2029	12	99296.00	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2030	1	99453.80	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2030	2	99603.86	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2030	3	99753.81	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2030	4	99908.69	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2030	5	100063.43	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2030	6	100217.99	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2030	7	100372.37	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2030	8	100529.10	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2030	9	100683.16	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2030	10	100837.09	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2030	11	100990.93	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2030	12	101144.70	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2031	1	101300.97	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2031	2	101449.66	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2031	3	101598.38	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2031	4	101752.19	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2031	5	101906.09	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2031	6	102060.09	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0

Indiana Michigan Power Company  
 Cooperative Energy Sales  
 Exogenous Variables

Indiana Michigan Power Company  
 2021 IRP, Volume 3, Exhibit E  
 PUBLIC REDACTED

Year	Month	gdp	j	f	m	a	m	j	j	a	s	o	n	b	b	PUBLIC REDACTED			
			h	c	d	d	d	d	d	d	d	d	d	d	d	d	d	d	j
2031	7	102214.23	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2031	8	102371.06	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2031	9	102525.52	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2031	10	102680.17	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2031	11	102835.00	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2031	12	102990.03	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2032	1	103147.82	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2032	2	103300.73	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2032	3	103453.86	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2032	4	103609.77	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2032	5	103765.93	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2032	6	103922.35	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2032	7	104079.04	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2032	8	104238.60	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2032	9	104395.94	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2032	10	104553.70	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2032	11	104711.93	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2032	12	104870.69	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2033	1	105032.65	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2033	2	105187.39	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2033	3	105342.79	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2033	4	105504.20	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2033	5	105666.42	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2033	6	105829.52	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2033	7	105993.53	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2033	8	106161.16	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2033	9	106326.89	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2033	10	106493.31	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2033	11	106660.31	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2033	12	106827.79	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2034	1	106998.38	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2034	2	107160.96	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2034	3	107323.69	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2034	4	107491.97	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2034	5	107660.19	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2034	6	107828.24	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2034	7	107996.01	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2034	8	108166.22	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2034	9	108333.41	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2034	10	108500.38	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2034	11	108667.18	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2034	12	108833.85	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0

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		j f m a m j j a s o n														b	b				
		g a e a p a u u u e c o														h	c				
		d n b r r y n l g p t v														d	d				
M																5	6	d	d	j	
Y	O															5	5	1	e	a	
E	N															d	d	8	c	n	
A	T															7	7	o	1	1	
R	H															0	0	n	7	8	
2035	1	109003.18	1	0	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2035	2	109164.29	0	1	0	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2035	3	109325.42	0	0	1	0	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2035	4	109492.08	0	0	0	1	0	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2035	5	109658.85	0	0	0	0	1	0	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2035	6	109825.79	0	0	0	0	0	1	0	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2035	7	109992.93	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.189	243.038	1	0	0
2035	8	110163.00	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.000	254.533	1	0	0
2035	9	110330.42	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.696	176.959	1	0	0
2035	10	110497.82	0	0	0	0	0	0	0	0	0	0	1	0	0	1	41.135	54.558	1	0	0
2035	11	110665.11	0	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2035	12	110832.18	0	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2036	1	111001.66	1	0	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2036	2	111165.27	0	1	0	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2036	3	111328.37	0	0	1	0	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2036	4	111493.58	0	0	0	1	0	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2036	5	111658.06	0	0	0	0	1	0	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2036	6	111821.71	0	0	0	0	0	1	0	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2036	7	111984.45	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.189	243.038	1	0	0
2036	8	112148.93	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.000	254.533	1	0	0
2036	9	112309.93	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.696	176.959	1	0	0
2036	10	112470.24	0	0	0	0	0	0	0	0	0	0	1	0	0	1	41.135	54.558	1	0	0
2036	11	112629.97	0	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2036	12	112789.24	0	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2037	1	112950.77	1	0	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2037	2	113104.25	0	1	0	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2037	3	113257.61	0	0	1	0	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2037	4	113416.17	0	0	0	1	0	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2037	5	113574.83	0	0	0	0	1	0	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2037	6	113733.70	0	0	0	0	0	1	0	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2037	7	113892.90	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.189	243.038	1	0	0
2037	8	114055.10	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.000	254.533	1	0	0
2037	9	114215.05	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.696	176.959	1	0	0
2037	10	114375.35	0	0	0	0	0	0	0	0	0	0	1	0	0	1	41.135	54.558	1	0	0
2037	11	114535.98	0	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2037	12	114696.91	0	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2038	1	114860.78	1	0	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2038	2	115016.98	0	1	0	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2038	3	115173.41	0	0	1	0	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2038	4	115335.38	0	0	0	1	0	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2038	5	115497.56	0	0	0	0	1	0	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2038	6	115659.93	0	0	0	0	0	1	0	0	0	0	0	0	0	1	17.782	106.676	1	0	0



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			j	f	m	a	m	j	j	a	s	o	n	b	b				
														h	c	d	d	j	
Y	M	g	a	e	a	p	a	u	u	u	e	c	o	d	d	d	d	j	
E	O	p	n	b	r	r	y	n	l	g	p	t	v	5	6	d	d	j	
A	N	—	0	0	0	0	0	0	0	0	0	0	1	5	5	1	e	a	
R	T	i	7	7	7	7	7	7	7	7	7	7	6	d	d	8	c	n	
	H	m	o	o	o	o	o	o	o	o	o	o	o	7	7	o	1	1	
		i	n	n	n	n	n	n	n	n	n	n	n	0	0	n	7	8	
2038	7	115822.49	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2038	8	115987.92	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2038	9	116150.95	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2038	10	116314.33	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2038	11	116478.11	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2038	12	116642.38	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2039	1	116809.91	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2039	2	116969.93	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2039	3	117130.61	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2039	4	117297.48	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2039	5	117465.19	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2039	6	117633.80	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2039	7	117803.39	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2039	8	117976.71	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2039	9	118148.07	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2039	10	118320.11	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2039	11	118492.69	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2039	12	118665.69	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2040	1	118841.80	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2040	2	119012.38	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2040	3	119182.97	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2040	4	119356.27	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2040	5	119529.32	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2040	6	119701.98	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2040	7	119874.11	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2040	8	120048.48	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2040	9	120219.52	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2040	10	120390.06	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2040	11	120560.18	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2040	12	120729.90	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2041	1	120902.05	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2041	2	121065.59	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2041	3	121228.89	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2041	4	121397.53	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2041	5	121566.00	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2041	6	121734.37	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2041	7	121902.66	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2041	8	122073.66	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2041	9	122241.87	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2041	10	122410.05	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2041	11	122578.19	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2041	12	122746.31	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0

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			j	f	m	a	m	j	j	a	s	o	n	b	b				
		g	a	e	a	p	a	u	u	u	e	c	o	h	c				
		d	n	b	r	r	y	n	l	g	p	t	v	d	d				
	M	p	d	d	d	d	d	d	d	d	d	d	d	5	6		d	d	j
Y	O	—	0	0	0	0	0	0	0	0	0	0	0	5	5		1	e	a
E	N	i	7	7	7	7	7	7	7	7	7	7	6	d	d		8	c	n
A	T	m	o	o	o	o	o	o	o	o	o	o	o	7	7		o	1	1
R	H	i	n	n	n	n	n	n	n	n	n	n	n	0	0		n	7	8
2042	1	122917.16	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2042	2	123079.72	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2042	3	123242.27	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2042	4	123410.31	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2042	5	123578.34	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2042	6	123746.37	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2042	7	123914.40	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2042	8	124085.23	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2042	9	124253.45	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2042	10	124421.93	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2042	11	124590.74	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2042	12	124760.01	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2043	1	124932.63	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2043	2	125097.50	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2043	3	125263.08	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2043	4	125435.11	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2043	5	125608.08	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2043	6	125782.10	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2043	7	125957.26	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2043	8	126136.46	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2043	9	126313.80	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2043	10	126492.05	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2043	11	126671.09	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2043	12	126850.79	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2044	1	127034.00	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2044	2	127211.72	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2044	3	127389.74	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2044	4	127570.92	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2044	5	127752.17	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2044	6	127933.37	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2044	7	128114.41	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2044	8	128298.23	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2044	9	128478.95	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2044	10	128659.62	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2044	11	128840.30	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2044	12	129021.06	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2045	1	129204.94	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2045	2	129380.12	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2045	3	129555.58	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2045	4	129737.33	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2045	5	129919.51	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2045	6	130102.18	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0

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			j	f	m	a	m	j	j	a	s	o	n	b	b				
		g	a	e	a	p	a	u	u	u	e	c	o	h	c				
		d	n	b	r	r	y	n	l	g	p	t	v	d	d	d	d	j	
Y	M	p	d	d	d	d	d	d	d	d	d	d	d	5	6	d	d	j	
E	O	—	0	0	0	0	0	0	0	0	0	0	0	5	5	1	e	a	
A	N	i	7	7	7	7	7	7	7	7	7	7	7	6	d	d	8	c	n
R	T	m	o	o	o	o	o	o	o	o	o	o	o	7	7	o	1	1	
	H	i	n	n	n	n	n	n	n	n	n	n	n	0	0	n	7	8	
2045	7	130285.41	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2045	8	130472.23	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2045	9	130656.61	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2045	10	130841.51	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2045	11	131026.91	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2045	12	131212.79	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2046	1	131402.16	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2046	2	131582.77	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2046	3	131763.75	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2046	4	131951.22	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2046	5	132139.01	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2046	6	132327.11	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2046	7	132515.49	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2046	8	132707.19	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2046	9	132895.96	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2046	10	133084.83	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2046	11	133273.72	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2046	12	133462.57	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2047	1	133654.41	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2047	2	133836.81	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2047	3	134018.97	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2047	4	134207.01	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2047	5	134394.68	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2047	6	134581.91	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2047	7	134768.64	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2047	8	134957.93	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2047	9	135143.76	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2047	10	135329.30	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2047	11	135514.64	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2047	12	135699.88	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2048	1	135888.16	1	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2048	2	136070.46	0	1	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2048	3	136252.94	0	0	1	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2048	4	136438.76	0	0	0	1	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2048	5	136624.97	0	0	0	0	1	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2048	6	136811.67	0	0	0	0	0	1	0	0	0	0	0	1	17.782	106.676	1	0	0
2048	7	136998.96	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2048	8	137189.97	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2048	9	137378.53	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2048	10	137567.71	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2048	11	137757.50	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2048	12	137947.89	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0

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			g	j	f	m	a	m	j	j	a	s	o	n	b	b				
			d	a	e	a	p	a	u	u	u	e	c	o	h	c				
			p	n	b	r	r	y	n	l	g	p	t	v	d	d				
	M		—	d	d	d	d	d	d	d	d	d	d	d	5	6	d	d	j	
Y	O		i	0	0	0	0	0	0	0	0	0	0	0	5	5	1	e	a	
E	N		m	7	7	7	7	7	7	7	7	7	7	7	d	d	8	c	n	
A	T		i	o	o	o	o	o	o	o	o	o	o	o	7	7	o	1	1	
R	H			n	n	n	n	n	n	n	n	n	n	n	0	0	n	7	8	
2049	1	138142.02	1	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2049	2	138327.32	0	1	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2049	3	138513.16	0	0	1	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2049	4	138705.86	0	0	0	1	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2049	5	138899.13	0	0	0	0	1	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2049	6	139092.94	0	0	0	0	0	1	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2049	7	139287.31	0	0	0	0	0	0	1	0	0	0	0	0	1	0.189	243.038	1	0	0
2049	8	139485.42	0	0	0	0	0	0	0	1	0	0	0	0	1	0.000	254.533	1	0	0
2049	9	139680.86	0	0	0	0	0	0	0	0	1	0	0	0	1	0.696	176.959	1	0	0
2049	10	139876.83	0	0	0	0	0	0	0	0	0	1	0	1	1	41.135	54.558	1	0	0
2049	11	140073.30	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2049	12	140270.29	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2050	1	140471.01	1	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2050	2	140662.49	0	1	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2050	3	140854.43	0	0	1	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2050	4	141053.32	0	0	0	1	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2050	5	141252.69	0	0	0	0	1	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2050	6	141452.52	0	0	0	0	0	1	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2050	7	141652.79	0	0	0	0	0	0	1	0	0	0	0	0	1	0.189	243.038	1	0	0
2050	8	141856.79	0	0	0	0	0	0	0	1	0	0	0	0	1	0.000	254.533	1	0	0
2050	9	142057.94	0	0	0	0	0	0	0	0	1	0	0	0	1	0.696	176.959	1	0	0
2050	10	142259.52	0	0	0	0	0	0	0	0	0	1	0	1	1	41.135	54.558	1	0	0
2050	11	142461.50	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2050	12	142663.90	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2051	1	142840.78	1	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2051	2	143038.60	0	1	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2051	3	143236.79	0	0	1	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2051	4	143442.05	0	0	0	1	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2051	5	143647.68	0	0	0	0	1	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2051	6	143853.66	0	0	0	0	0	1	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2051	7	144059.98	0	0	0	0	0	0	1	0	0	0	0	0	1	0.189	243.038	1	0	0
2051	8	144270.03	0	0	0	0	0	0	0	1	0	0	0	0	1	0.000	254.533	1	0	0
2051	9	144477.03	0	0	0	0	0	0	0	0	1	0	0	0	1	0.696	176.959	1	0	0
2051	10	144684.35	0	0	0	0	0	0	0	0	0	1	0	1	1	41.135	54.558	1	0	0
2051	11	144891.99	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2051	12	145099.93	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2052	1	145252.07	1	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2052	2	145456.40	0	1	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2052	3	145661.00	0	0	1	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2052	4	145872.79	0	0	0	1	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2052	5	146084.83	0	0	0	0	1	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2052	6	146297.13	0	0	0	0	0	1	0	0	0	0	0	0	1	17.782	106.676	1	0	0

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		j f m a m j j a s o n											b	b						
		g	a	e	a	p	a	u	u	u	e	c	o	h	c					
		d	n	b	r	r	y	n	l	g	p	t	v	d	d					
Y	M	p	d	d	d	d	d	d	d	d	d	d	d	5	6	d	d	j		
E	O	—	0	0	0	0	0	0	0	0	0	0	0	5	5	1	e	a		
A	N	i	7	7	7	7	7	7	7	7	7	7	7	6	d	d	8	c	n	
R	T	m	o	o	o	o	o	o	o	o	o	o	o	7	7	o	1	1		
	H	i	n	n	n	n	n	n	n	n	n	n	n	0	0	n	7	8		
2052	7	146509.66	0	0	0	0	0	0	0	1	0	0	0	0	1	0.189	243.038	1	0	0
2052	8	146725.90	0	0	0	0	0	0	0	0	1	0	0	0	1	0.000	254.533	1	0	0
2052	9	146938.89	0	0	0	0	0	0	0	0	0	1	0	0	1	0.696	176.959	1	0	0
2052	10	147152.11	0	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2052	11	147365.53	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2052	12	147579.15	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2053	1	147705.61	1	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2053	2	147916.62	0	1	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2053	3	148127.81	0	0	1	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2053	4	148346.28	0	0	0	1	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2053	5	148564.91	0	0	0	0	1	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2053	6	148783.69	0	0	0	0	0	1	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2053	7	149002.58	0	0	0	0	0	0	1	0	0	0	0	0	1	0.189	243.038	1	0	0
2053	8	149225.18	0	0	0	0	0	0	0	1	0	0	0	0	1	0.000	254.533	1	0	0
2053	9	149444.31	0	0	0	0	0	0	0	0	1	0	0	0	1	0.696	176.959	1	0	0
2053	10	149663.56	0	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2053	11	149882.91	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2053	12	150102.34	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2054	1	150202.18	1	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2054	2	150420.05	0	1	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2054	3	150637.98	0	0	1	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2054	4	150863.32	0	0	0	1	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2054	5	151088.70	0	0	0	0	1	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2054	6	151314.12	0	0	0	0	0	1	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2054	7	151539.54	0	0	0	0	0	0	1	0	0	0	0	0	1	0.189	243.038	1	0	0
2054	8	151768.64	0	0	0	0	0	0	0	1	0	0	0	0	1	0.000	254.533	1	0	0
2054	9	151994.07	0	0	0	0	0	0	0	0	1	0	0	0	1	0.696	176.959	1	0	0
2054	10	152219.51	0	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2054	11	152444.93	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2054	12	152670.32	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2055	1	152742.55	1	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2055	2	152967.45	0	1	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2055	3	153192.31	0	0	1	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2055	4	153424.69	0	0	0	1	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2055	5	153657.00	0	0	0	0	1	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2055	6	153889.22	0	0	0	0	0	1	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2055	7	154121.33	0	0	0	0	0	0	1	0	0	0	0	0	1	0.189	243.038	1	0	0
2055	8	154357.10	0	0	0	0	0	0	0	1	0	0	0	0	1	0.000	254.533	1	0	0
2055	9	154588.99	0	0	0	0	0	0	0	0	1	0	0	0	1	0.696	176.959	1	0	0
2055	10	154820.77	0	0	0	0	0	0	0	0	0	1	0	0	1	41.135	54.558	1	0	0
2055	11	155052.40	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2055	12	155283.89	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0

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		j f m a m j j a s o n g d n b r r y n l g p t v p d d d d d d d d d d d d - i 0 0 0 0 0 0 0 0 0 0 0 0 1 m o o o o o o o o o o o o o i n n n n n n n n n n n n n													b h d d 5 5 7 0	b c d d 6 5 7 0	d d j 1 e a 8 c n o 1 1 n 7 8			
2056	1	155327.51	1	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2056	2	155559.62	0	1	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2056	3	155791.59	0	0	1	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2056	4	156031.19	0	0	0	1	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2056	5	156270.60	0	0	0	0	1	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2056	6	156509.81	0	0	0	0	0	1	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2056	7	156748.76	0	0	0	0	0	0	1	0	0	0	0	0	1	0.189	243.038	1	0	0
2056	8	156991.38	0	0	0	0	0	0	0	1	0	0	0	0	1	0.000	254.533	1	0	0
2056	9	157229.88	0	0	0	0	0	0	0	0	1	0	0	0	1	0.696	176.959	1	0	0
2056	10	157468.15	0	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2056	11	157706.16	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2056	12	157943.90	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0
2057	1	157957.87	1	0	0	0	0	0	0	0	0	0	0	0	1	792.471	0.000	1	0	0
2057	2	158197.37	0	1	0	0	0	0	0	0	0	0	0	0	1	885.309	0.000	1	0	0
2057	3	158436.63	0	0	1	0	0	0	0	0	0	0	0	0	1	703.560	0.221	1	0	0
2057	4	158683.64	0	0	0	1	0	0	0	0	0	0	0	0	1	389.426	2.548	1	0	0
2057	5	158930.33	0	0	0	0	1	0	0	0	0	0	0	0	1	124.656	18.512	1	0	0
2057	6	159176.69	0	0	0	0	0	1	0	0	0	0	0	0	1	17.782	106.676	1	0	0
2057	7	159422.68	0	0	0	0	0	0	1	0	0	0	0	0	1	0.189	243.038	1	0	0
2057	8	159672.31	0	0	0	0	0	0	0	1	0	0	0	0	1	0.000	254.533	1	0	0
2057	9	159917.58	0	0	0	0	0	0	0	0	1	0	0	0	1	0.696	176.959	1	0	0
2057	10	160162.50	0	0	0	0	0	0	0	0	0	0	1	0	1	41.135	54.558	1	0	0
2057	11	160407.04	0	0	0	0	0	0	0	0	0	0	0	1	1	232.738	4.977	1	0	0
2057	12	160651.18	0	0	0	0	0	0	0	0	0	0	0	0	1	545.497	0.063	1	0	0

Indiana Michigan Power Company  
Cooperative Energy Sales  
Model Estimation

Indiana Michigan Power Company  
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The SYSLIN Procedure  
Ordinary Least Squares Estimation

Model  
Dependent Variable  
Label

KWH  
KWH  
Energy

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	18	4.863E16	2.702E15	54.79	<.0001
Error	150	7.397E15	4.931E13		
Corrected Total	168	5.603E16			

Root MSE	7022131.85	R-Square	0.86799
Dependent Mean	93051194.1	Adj R-Sq	0.85215
Coeff Var	7.54653		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variable Label
Intercept	1	69385133	13481465	5.15	<.0001	Intercept
gdp_imi	1	359.6111	187.3059	1.92	0.0568	Service Area Gross Regional Product
bhdd55d70	1	23631.22	6385.759	3.70	0.0003	Heating Degree Days 2007 On
bcdd65d70	1	54075.30	16589.02	3.26	0.0014	Cooling Degree Days 2007 On
jand07on	1	-3440917	2988018	-1.15	0.2513	Binary Variable - January 2007 On
febd07on	1	-1.269E7	3482831	-3.64	0.0004	Binary Variable - February 2007 On
mard07on	1	-1.641E7	2921870	-5.62	<.0001	Binary Variable - March 2007 On
aprd07on	1	-1.701E7	2936140	-5.79	<.0001	Binary Variable - April 2007 On
mayd07on	1	-8605587	3869334	-2.22	0.0276	Binary Variable - May 2007 On
jund07on	1	-3829813	4835807	-0.79	0.4296	Binary Variable - June 2007 On
juld07on	1	1430717	6066098	0.24	0.8139	Binary Variable - July 2007 On
augd07on	1	5310908	6157211	0.86	0.3898	Binary Variable - August 2007 On

Indiana Michigan Power Company  
 Cooperative Energy Sales  
 Model Estimation

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The SYSLIN Procedure  
 Ordinary Least Squares Estimation

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variable Label
sepd07on	1	-1.268E7	5340803	-2.38	0.0188	Binary Variable - September 2007 On
octd07on	1	-8076811	4407488	-1.83	0.0689	Binary Variable - October 2007 On
novd07on	1	-7192887	3434476	-2.09	0.0379	Binary Variable - November 2007 On
d16on	1	2869811	2036461	1.41	0.1608	Binary Variable - 2016 On
d18on	1	-3.876E7	1966988	-19.70	<.0001	Binary Variable - 2018 On
dec17	1	29071191	7443409	3.91	0.0001	Binary Variable - December 2017
jan18	1	-5671896	7542188	-0.75	0.4532	Binary Variable - January 2018

Durbin-Watson	1.94693
Number of Observations	169
First-Order Autocorrelation	0.024957



Indiana Michigan Power Company  
 Cooperative Energy Sales  
 Model Residuals

Indiana Michigan Power Company  
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 Residual Values

time		Sum
2007.000000	****	-2770248
2007.0833333	*****	-7171932
2007.1666667	*****	-7836588
2007.2500000	*****	-4702934
2007.3333333	*****	-7470233
2007.4166667	*****	-3778368
2007.5000000	*****	-7106642
2007.5833333		-368777
2007.6666667	****	-2807023
2007.7500000	***	-2442614
2007.8333333		-349904
2007.9166667	****	-2702945
2008.0000000	**	-1674560
2008.0833333	*	959387
2008.1666667	*****	-6468483
2008.2500000	*****	-5896440
2008.3333333	*****	-7006045
2008.4166667	***	-2191883
2008.5000000	*	-753461
2008.5833333	*****	-8540157
2008.6666667	**	-1558057
2008.7500000	***	-2131268
2008.8333333	**	1362860
2008.9166667	*****	9159179
2009.0000000	*****	4825573
2009.0833333	*****	-8190447
2009.1666667		240799
2009.2500000	****	3225554
2009.3333333	*****	-11885644
2009.4166667	*****	-6928753
2009.5000000	*****	-7691925
2009.5833333	*	-919324
2009.6666667	****	3355908
2009.7500000	*	-691474
2009.8333333	***	-2507029
2009.9166667	*****	14204183
2010.0000000	*****	4690359
2010.0833333	****	-3254291
2010.1666667	*	-470386
2010.2500000	*****	-3828285
2010.3333333	****	3276516
2010.4166667	*	659779
2010.5000000	*****	-9322320
2010.5833333	*****	18771498
2010.6666667	*****	-12974411
2010.7500000	****	-3208457
2010.8333333	*****	7252475
2010.9166667	*****	5458983
2011.0000000	*****	-4879516

Indiana Michigan Power Company  
 Cooperative Energy Sales  
 Model Residuals

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2011.0833333	*****	-8411766
2011.1666667	****	-2893861
2011.2500000	*****	7106712
2011.3333333	*	746464
2011.4166667	***	2017891
2011.5000000	*****	14474475
2011.5833333	*****	-6836722
2011.6666667	*****	-10937094
2011.7500000	**	1385528
2011.8333333	**	-1293901
2011.9166667	*****	10786697
2012.0000000	***	2422044
2012.0833333		-81462
2012.1666667	**	1608364
2012.2500000		-172448
2012.3333333	*****	5493055
2012.4166667	*****	11207303
2012.5000000	*****	-7713077
2012.5833333	*****	17152092
2012.6666667	*	-742545
2012.7500000	*	-861358
2012.8333333	*	-1046117
2012.9166667	***	2394287
2013.0000000	****	-3158110
2013.0833333	***	2292408
2013.1666667	*****	4238444
2013.2500000	*****	9196976
2013.3333333	*****	6044595
2013.4166667	*	-764189
2013.5000000	*****	5227711
2013.5833333	*****	8492576
2013.6666667	*****	6883788
2013.7500000	*	-1083151
2013.8333333	*****	5410455
2013.9166667	**	1763425
2014.0000000	*****	12644141
2014.0833333	*****	12318288
2014.1666667	*****	12991873
2014.2500000		48290
2014.3333333		296553
2014.4166667	*****	-8823705
2014.5000000		6881
2014.5833333	*	948506
2014.6666667	*****	-4043073
2014.7500000	*	-614436
2014.8333333	*****	4178765
2014.9166667	*****	-6987397
2015.0000000	*	640993
2015.0833333	*	896073
2015.1666667	*****	-5071133
2015.2500000	*****	-8547574
2015.3333333	*****	-4379739

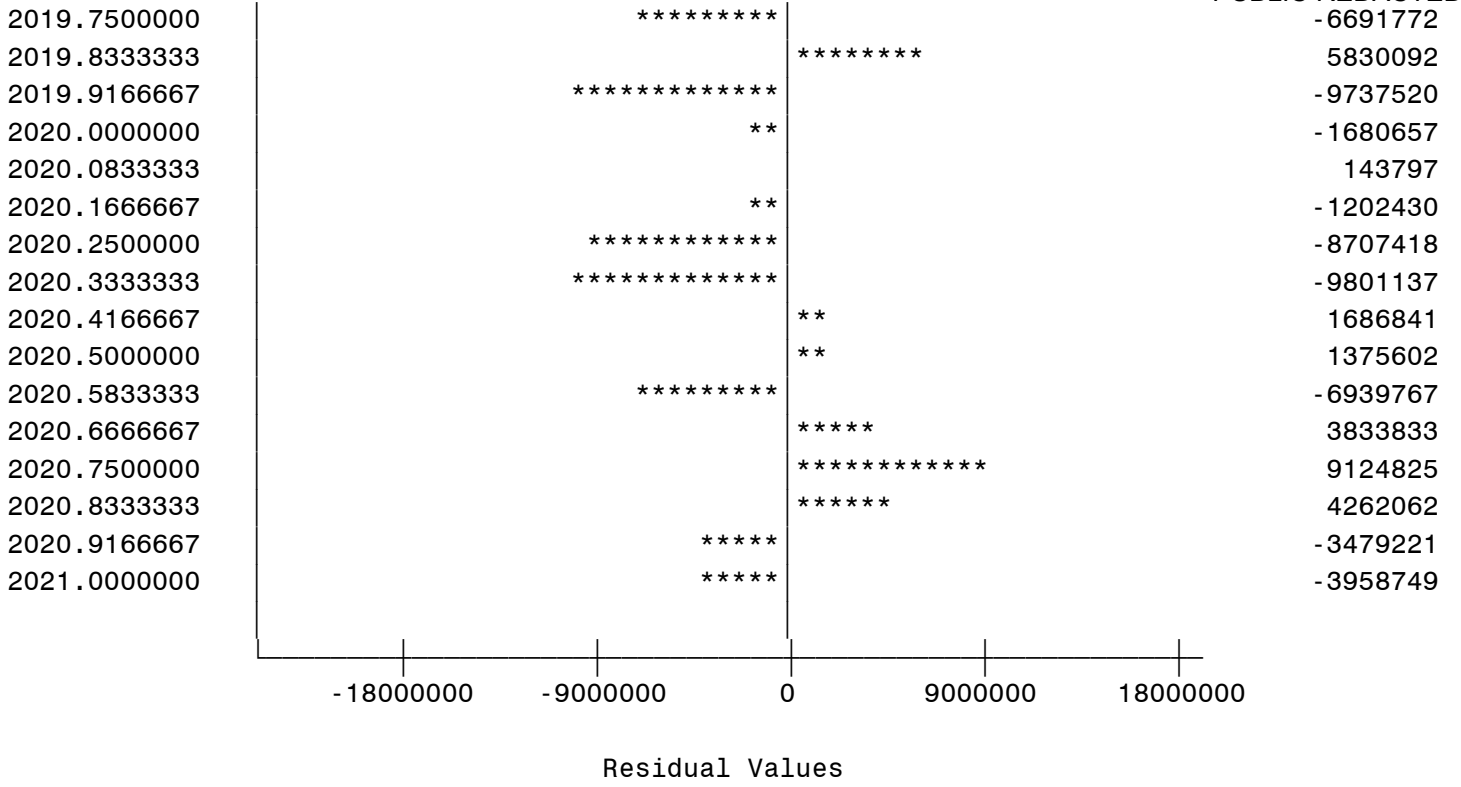
Indiana Michigan Power Company  
Cooperative Energy Sales  
Model Residuals

Indiana Michigan Power Company  
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2015.4166667	***	-2159093
2015.5000000	****	2932415
2015.5833333	***	-2462614
2015.6666667	*****	8487218
2015.7500000		243212
2015.8333333	**	-1683749
2015.9166667	*****	-7172408
2016.0000000	**	1179689
2016.0833333	***	-2070114
2016.1666667		77719
2016.2500000		15728
2016.3333333	****	-2666103
2016.4166667	*	400049
2016.5000000	*****	10743484
2016.5833333	***	1948538
2016.6666667	***	2420791
2016.7500000	*****	-4784231
2016.8333333	*	-434902
2016.9166667	*****	-5961610
2017.0000000	*****	-14017248
2017.0833333	*****	18426241
2017.1666667	*****	-12411795
2017.2500000	****	3133574
2017.3333333	*****	14890255
2017.4166667	*****	5366187
2017.5000000	*****	6157530
2017.5833333	*****	-7609450
2017.6666667	*****	6176173
2017.7500000	****	2763381
2017.8333333	*****	-23743884
2017.9166667		0
2018.0000000		0
2018.0833333	*****	-4551480
2018.1666667	*****	9596408
2018.2500000	****	3216128
2018.3333333	*****	7348724
2018.4166667	**	1176704
2018.5000000	*****	-8468193
2018.5833333	*****	-4652529
2018.6666667	**	1512443
2018.7500000	*****	8991814
2018.8333333	****	2762777
2018.9166667	*****	-7725653
2019.0000000	*****	5736290
2019.0833333	**	-1304701
2019.1666667	*****	7601068
2019.2500000	*****	5912138
2019.3333333	*****	5112740
2019.4166667	***	2131238
2019.5000000		137520
2019.5833333	*****	-8983869
2019.6666667	*	392051

Indiana Michigan Power Company  
Cooperative Energy Sales  
Model Residuals

Indiana Michigan Power Company  
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Indiana Michigan Power Company  
Cooperative Energy Sales  
Actual and Forecast

Indiana Michigan Power Company  
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Year	Energy	Growth* Rate
2007	CONFID.	N/A
2008	CONFID.	N/A
2009	CONFID.	N/A
2010	CONFID.	N/A
2011	CONFID.	N/A
2012	CONFID.	N/A
2013	CONFID.	N/A
2014	CONFID.	N/A
2015	CONFID.	N/A
2016	CONFID.	N/A
2017	CONFID.	N/A
2018	CONFID.	N/A
2019	CONFID.	N/A
2020	CONFID.	N/A
2021	CONFID.	N/A
2022	CONFID.	N/A
2023	CONFID.	N/A
2024	CONFID.	N/A
2025	CONFID.	N/A
2026	CONFID.	N/A
2027	CONFID.	N/A
2028	CONFID.	N/A
2029	CONFID.	N/A
2030	CONFID.	N/A
2031	CONFID.	N/A
2032	CONFID.	N/A
2033	CONFID.	N/A
2034	CONFID.	N/A
2035	CONFID.	N/A
2036	CONFID.	N/A
2037	CONFID.	N/A
2038	CONFID.	N/A
2039	CONFID.	N/A
2040	CONFID.	N/A
2041	CONFID.	N/A
2042	CONFID.	N/A
2043	CONFID.	N/A
2044	CONFID.	N/A
2045	CONFID.	N/A
2046	CONFID.	N/A
2047	CONFID.	N/A
2048	CONFID.	N/A
2049	CONFID.	N/A
2050	CONFID.	N/A
2051	CONFID.	N/A
2052	CONFID.	N/A
2053	CONFID.	N/A
2054	CONFID.	N/A
2055	CONFID.	N/A

Indiana Michigan Power Company  
Cooperative Energy Sales  
Actual and Forecast

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
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Year	Energy	Growth* Rate
2056	CONFID.	N/A
2057	CONFID.	N/A

Indiana Michigan Power Company  
I.M.P.A.  
Endogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
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The MEANS Procedure

Variable	Label	Mean
YEAR	Year	2022.00
MONTH	Month	6.500000

Indiana Michigan Power Company  
I.M.P.A.  
Endogenous Variables

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
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Obs	YEAR	MONTH	Energy
1	1987	1	CONFID.
2	1987	2	CONFID.
3	1987	3	CONFID.
4	1987	4	CONFID.
5	1987	5	CONFID.
6	1987	6	CONFID.
7	1987	7	CONDID.
8	1987	8	CONFID.
9	1987	9	CONFID.
10	1987	10	CONFID.
11	1987	11	CONFID.
12	1987	12	CONFID.
13	1988	1	CONFID.
14	1988	2	CONFID.
15	1988	3	CONFID.
16	1988	4	CONFID.
17	1988	5	CONFID.
18	1988	6	CONFID.
19	1988	7	CONDID.
20	1988	8	CONFID.
21	1988	9	CONFID.
22	1988	10	CONFID.
23	1988	11	CONFID.
24	1988	12	CONFID.
25	1989	1	CONFID.
26	1989	2	CONFID.
27	1989	3	CONFID.
28	1989	4	CONFID.
29	1989	5	CONFID.
30	1989	6	CONFID.
31	1989	7	CONDID.
32	1989	8	CONFID.
33	1989	9	CONFID.
34	1989	10	CONFID.
35	1989	11	CONFID.
36	1989	12	CONFID.
37	1990	1	CONFID.
38	1990	2	CONFID.
39	1990	3	CONFID.
40	1990	4	CONFID.
41	1990	5	CONFID.
42	1990	6	CONFID.
43	1990	7	CONDID.
44	1990	8	CONFID.
45	1990	9	CONFID.
46	1990	10	CONFID.
47	1990	11	CONFID.
48	1990	12	CONFID.
49	1991	1	CONFID.
50	1991	2	CONFID.



Indiana Michigan Power Company  
I.M.P.A.  
Endogenous Variables

Indiana Michigan Power Company  
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Obs	YEAR	MONTH	Energy
51	1991	3	CONFID.
52	1991	4	CONFID.
53	1991	5	CONFID.
54	1991	6	CONFID.
55	1991	7	CONDID.
56	1991	8	CONFID.
57	1991	9	CONFID.
58	1991	10	CONFID.
59	1991	11	CONFID.
60	1991	12	CONFID.
61	1992	1	CONFID.
62	1992	2	CONFID.
63	1992	3	CONFID.
64	1992	4	CONFID.
65	1992	5	CONFID.
66	1992	6	CONFID.
67	1992	7	CONDID.
68	1992	8	CONFID.
69	1992	9	CONFID.
70	1992	10	CONFID.
71	1992	11	CONFID.
72	1992	12	CONFID.
73	1993	1	CONFID.
74	1993	2	CONFID.
75	1993	3	CONFID.
76	1993	4	CONFID.
77	1993	5	CONFID.
78	1993	6	CONFID.
79	1993	7	CONDID.
80	1993	8	CONFID.
81	1993	9	CONFID.
82	1993	10	CONFID.
83	1993	11	CONFID.
84	1993	12	CONFID.
85	1994	1	CONFID.
86	1994	2	CONFID.
87	1994	3	CONFID.
88	1994	4	CONFID.
89	1994	5	CONFID.
90	1994	6	CONFID.
91	1994	7	CONDID.
92	1994	8	CONFID.
93	1994	9	CONFID.
94	1994	10	CONFID.
95	1994	11	CONFID.
96	1994	12	CONFID.
97	1995	1	CONFID.
98	1995	2	CONFID.
99	1995	3	CONFID.
100	1995	4	CONFID.

Indiana Michigan Power Company  
I.M.P.A.  
Endogenous Variables

Indiana Michigan Power Company  
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Obs	YEAR	MONTH	Energy
101	1995	5	CONFID.
102	1995	6	CONFID.
103	1995	7	CONDID.
104	1995	8	CONFID.
105	1995	9	CONFID.
106	1995	10	CONFID.
107	1995	11	CONFID.
108	1995	12	CONFID.
109	1996	1	CONFID.
110	1996	2	CONFID.
111	1996	3	CONFID.
112	1996	4	CONFID.
113	1996	5	CONFID.
114	1996	6	CONFID.
115	1996	7	CONDID.
116	1996	8	CONFID.
117	1996	9	CONFID.
118	1996	10	CONFID.
119	1996	11	CONFID.
120	1996	12	CONFID.
121	1997	1	CONFID.
122	1997	2	CONFID.
123	1997	3	CONFID.
124	1997	4	CONFID.
125	1997	5	CONFID.
126	1997	6	CONFID.
127	1997	7	CONDID.
128	1997	8	CONFID.
129	1997	9	CONFID.
130	1997	10	CONFID.
131	1997	11	CONFID.
132	1997	12	CONFID.
133	1998	1	CONFID.
134	1998	2	CONFID.
135	1998	3	CONFID.
136	1998	4	CONFID.
137	1998	5	CONFID.
138	1998	6	CONFID.
139	1998	7	CONDID.
140	1998	8	CONFID.
141	1998	9	CONFID.
142	1998	10	CONFID.
143	1998	11	CONFID.
144	1998	12	CONFID.
145	1999	1	CONFID.
146	1999	2	CONFID.
147	1999	3	CONFID.
148	1999	4	CONFID.
149	1999	5	CONFID.
150	1999	6	CONFID.

Indiana Michigan Power Company  
I.M.P.A.  
Endogenous Variables

Indiana Michigan Power Company  
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Obs	YEAR	MONTH	Energy
151	1999	7	CONDID.
152	1999	8	CONFID.
153	1999	9	CONFID.
154	1999	10	CONFID.
155	1999	11	CONFID.
156	1999	12	CONFID.
157	2000	1	CONFID.
158	2000	2	CONFID.
159	2000	3	CONFID.
160	2000	4	CONFID.
161	2000	5	CONFID.
162	2000	6	CONFID.
163	2000	7	CONDID.
164	2000	8	CONFID.
165	2000	9	CONFID.
166	2000	10	CONFID.
167	2000	11	CONFID.
168	2000	12	CONFID.
169	2001	1	CONFID.
170	2001	2	CONFID.
171	2001	3	CONFID.
172	2001	4	CONFID.
173	2001	5	CONFID.
174	2001	6	CONFID.
175	2001	7	CONDID.
176	2001	8	CONFID.
177	2001	9	CONFID.
178	2001	10	CONFID.
179	2001	11	CONFID.
180	2001	12	CONFID.
181	2002	1	CONFID.
182	2002	2	CONFID.
183	2002	3	CONFID.
184	2002	4	CONFID.
185	2002	5	CONFID.
186	2002	6	CONFID.
187	2002	7	CONDID.
188	2002	8	CONFID.
189	2002	9	CONFID.
190	2002	10	CONFID.
191	2002	11	CONFID.
192	2002	12	CONFID.
193	2003	1	CONFID.
194	2003	2	CONFID.
195	2003	3	CONFID.
196	2003	4	CONFID.
197	2003	5	CONFID.
198	2003	6	CONFID.
199	2003	7	CONDID.
200	2003	8	CONFID.

Indiana Michigan Power Company  
I.M.P.A.  
Endogenous Variables

Indiana Michigan Power Company  
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Obs	YEAR	MONTH	Energy
201	2003	9	CONFID.
202	2003	10	CONFID.
203	2003	11	CONFID.
204	2003	12	CONFID.
205	2004	1	CONFID.
206	2004	2	CONFID.
207	2004	3	CONFID.
208	2004	4	CONFID.
209	2004	5	CONFID.
210	2004	6	CONFID.
211	2004	7	CONDID.
212	2004	8	CONFID.
213	2004	9	CONFID.
214	2004	10	CONFID.
215	2004	11	CONFID.
216	2004	12	CONFID.
217	2005	1	CONFID.
218	2005	2	CONFID.
219	2005	3	CONFID.
220	2005	4	CONFID.
221	2005	5	CONFID.
222	2005	6	CONFID.
223	2005	7	CONDID.
224	2005	8	CONFID.
225	2005	9	CONFID.
226	2005	10	CONFID.
227	2005	11	CONFID.
228	2005	12	CONFID.
229	2006	1	CONFID.
230	2006	2	CONFID.
231	2006	3	CONFID.
232	2006	4	CONFID.
233	2006	5	CONFID.
234	2006	6	CONFID.
235	2006	7	CONDID.
236	2006	8	CONFID.
237	2006	9	CONFID.
238	2006	10	CONFID.
239	2006	11	CONFID.
240	2006	12	CONFID.
241	2007	1	CONFID.
242	2007	2	CONFID.
243	2007	3	CONFID.
244	2007	4	CONFID.
245	2007	5	CONFID.
246	2007	6	CONFID.
247	2007	7	CONDID.
248	2007	8	CONFID.
249	2007	9	CONFID.
250	2007	10	CONFID.

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Obs	YEAR	MONTH	Energy
251	2007	11	CONFID.
252	2007	12	CONFID.
253	2008	1	CONFID.
254	2008	2	CONFID.
255	2008	3	CONFID.
256	2008	4	CONFID.
257	2008	5	CONFID.
258	2008	6	CONFID.
259	2008	7	CONDID.
260	2008	8	CONFID.
261	2008	9	CONFID.
262	2008	10	CONFID.
263	2008	11	CONFID.
264	2008	12	CONFID.
265	2009	1	CONFID.
266	2009	2	CONFID.
267	2009	3	CONFID.
268	2009	4	CONFID.
269	2009	5	CONFID.
270	2009	6	CONFID.
271	2009	7	CONDID.
272	2009	8	CONFID.
273	2009	9	CONFID.
274	2009	10	CONFID.
275	2009	11	CONFID.
276	2009	12	CONFID.
277	2010	1	CONFID.
278	2010	2	CONFID.
279	2010	3	CONFID.
280	2010	4	CONFID.
281	2010	5	CONFID.
282	2010	6	CONFID.
283	2010	7	CONDID.
284	2010	8	CONFID.
285	2010	9	CONFID.
286	2010	10	CONFID.
287	2010	11	CONFID.
288	2010	12	CONFID.
289	2011	1	CONFID.
290	2011	2	CONFID.
291	2011	3	CONFID.
292	2011	4	CONFID.
293	2011	5	CONFID.
294	2011	6	CONFID.
295	2011	7	CONDID.
296	2011	8	CONFID.
297	2011	9	CONFID.
298	2011	10	CONFID.
299	2011	11	CONFID.
300	2011	12	CONFID.

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Obs	YEAR	MONTH	Energy
301	2012	1	CONFID.
302	2012	2	CONFID.
303	2012	3	CONFID.
304	2012	4	CONFID.
305	2012	5	CONFID.
306	2012	6	CONFID.
307	2012	7	CONDID.
308	2012	8	CONFID.
309	2012	9	CONFID.
310	2012	10	CONFID.
311	2012	11	CONFID.
312	2012	12	CONFID.
313	2013	1	CONFID.
314	2013	2	CONFID.
315	2013	3	CONFID.
316	2013	4	CONFID.
317	2013	5	CONFID.
318	2013	6	CONFID.
319	2013	7	CONDID.
320	2013	8	CONFID.
321	2013	9	CONFID.
322	2013	10	CONFID.
323	2013	11	CONFID.
324	2013	12	CONFID.
325	2014	1	CONFID.
326	2014	2	CONFID.
327	2014	3	CONFID.
328	2014	4	CONFID.
329	2014	5	CONFID.
330	2014	6	CONFID.
331	2014	7	CONDID.
332	2014	8	CONFID.
333	2014	9	CONFID.
334	2014	10	CONFID.
335	2014	11	CONFID.
336	2014	12	CONFID.
337	2015	1	CONFID.
338	2015	2	CONFID.
339	2015	3	CONFID.
340	2015	4	CONFID.
341	2015	5	CONFID.
342	2015	6	CONFID.
343	2015	7	CONDID.
344	2015	8	CONFID.
345	2015	9	CONFID.
346	2015	10	CONFID.
347	2015	11	CONFID.
348	2015	12	CONFID.
349	2016	1	CONFID.
350	2016	2	CONFID.

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Obs	YEAR	MONTH	Energy
351	2016	3	CONFID.
352	2016	4	CONFID.
353	2016	5	CONFID.
354	2016	6	CONFID.
355	2016	7	CONDID.
356	2016	8	CONFID.
357	2016	9	CONFID.
358	2016	10	CONFID.
359	2016	11	CONFID.
360	2016	12	CONFID.
361	2017	1	CONFID.
362	2017	2	CONFID.
363	2017	3	CONFID.
364	2017	4	CONFID.
365	2017	5	CONFID.
366	2017	6	CONFID.
367	2017	7	CONDID.
368	2017	8	CONFID.
369	2017	9	CONFID.
370	2017	10	CONFID.
371	2017	11	CONFID.
372	2017	12	CONFID.
373	2018	1	CONFID.
374	2018	2	CONFID.
375	2018	3	CONFID.
376	2018	4	CONFID.
377	2018	5	CONFID.
378	2018	6	CONFID.
379	2018	7	CONDID.
380	2018	8	CONFID.
381	2018	9	CONFID.
382	2018	10	CONFID.
383	2018	11	CONFID.
384	2018	12	CONFID.
385	2019	1	CONFID.
386	2019	2	CONFID.
387	2019	3	CONFID.
388	2019	4	CONFID.
389	2019	5	CONFID.
390	2019	6	CONFID.
391	2019	7	CONDID.
392	2019	8	CONFID.
393	2019	9	CONFID.
394	2019	10	CONFID.
395	2019	11	CONFID.
396	2019	12	CONFID.
397	2020	1	CONFID.
398	2020	2	CONFID.
399	2020	3	CONFID.
400	2020	4	CONFID.

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Obs	YEAR	MONTH	Energy
401	2020	5	CONFID.
402	2020	6	CONFID.
403	2020	7	CONDID.
404	2020	8	CONFID.
405	2020	9	CONFID.
406	2020	10	CONFID.
407	2020	11	CONFID.
408	2020	12	CONFID.
409	2021	1	CONFID.
410	2021	2	CONFID.
411	2021	3	CONFID.
412	2021	4	CONFID.
413	2021	5	CONFID.
414	2021	6	CONFID.
415	2021	7	CONDID.
416	2021	8	CONFID.
417	2021	9	CONFID.
418	2021	10	CONFID.
419	2021	11	CONFID.
420	2021	12	CONFID.
421	2022	1	CONFID.
422	2022	2	CONFID.
423	2022	3	CONFID.
424	2022	4	CONFID.
425	2022	5	CONFID.
426	2022	6	CONFID.
427	2022	7	CONDID.
428	2022	8	CONFID.
429	2022	9	CONFID.
430	2022	10	CONFID.
431	2022	11	CONFID.
432	2022	12	CONFID.
433	2023	1	CONFID.
434	2023	2	CONFID.
435	2023	3	CONFID.
436	2023	4	CONFID.
437	2023	5	CONFID.
438	2023	6	CONFID.
439	2023	7	CONDID.
440	2023	8	CONFID.
441	2023	9	CONFID.
442	2023	10	CONFID.
443	2023	11	CONFID.
444	2023	12	CONFID.
445	2024	1	CONFID.
446	2024	2	CONFID.
447	2024	3	CONFID.
448	2024	4	CONFID.
449	2024	5	CONFID.
450	2024	6	CONFID.



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Obs	YEAR	MONTH	Energy
451	2024	7	CONDID.
452	2024	8	CONFID.
453	2024	9	CONFID.
454	2024	10	CONFID.
455	2024	11	CONFID.
456	2024	12	CONFID.
457	2025	1	CONFID.
458	2025	2	CONFID.
459	2025	3	CONFID.
460	2025	4	CONFID.
461	2025	5	CONFID.
462	2025	6	CONFID.
463	2025	7	CONDID.
464	2025	8	CONFID.
465	2025	9	CONFID.
466	2025	10	CONFID.
467	2025	11	CONFID.
468	2025	12	CONFID.
469	2026	1	CONFID.
470	2026	2	CONFID.
471	2026	3	CONFID.
472	2026	4	CONFID.
473	2026	5	CONFID.
474	2026	6	CONFID.
475	2026	7	CONDID.
476	2026	8	CONFID.
477	2026	9	CONFID.
478	2026	10	CONFID.
479	2026	11	CONFID.
480	2026	12	CONFID.
481	2027	1	CONFID.
482	2027	2	CONFID.
483	2027	3	CONFID.
484	2027	4	CONFID.
485	2027	5	CONFID.
486	2027	6	CONFID.
487	2027	7	CONDID.
488	2027	8	CONFID.
489	2027	9	CONFID.
490	2027	10	CONFID.
491	2027	11	CONFID.
492	2027	12	CONFID.
493	2028	1	CONFID.
494	2028	2	CONFID.
495	2028	3	CONFID.
496	2028	4	CONFID.
497	2028	5	CONFID.
498	2028	6	CONFID.
499	2028	7	CONDID.
500	2028	8	CONFID.

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Obs	YEAR	MONTH	Energy
501	2028	9	CONFID.
502	2028	10	CONFID.
503	2028	11	CONFID.
504	2028	12	CONFID.
505	2029	1	CONFID.
506	2029	2	CONFID.
507	2029	3	CONFID.
508	2029	4	CONFID.
509	2029	5	CONFID.
510	2029	6	CONFID.
511	2029	7	CONDID.
512	2029	8	CONFID.
513	2029	9	CONFID.
514	2029	10	CONFID.
515	2029	11	CONFID.
516	2029	12	CONFID.
517	2030	1	CONFID.
518	2030	2	CONFID.
519	2030	3	CONFID.
520	2030	4	CONFID.
521	2030	5	CONFID.
522	2030	6	CONFID.
523	2030	7	CONDID.
524	2030	8	CONFID.
525	2030	9	CONFID.
526	2030	10	CONFID.
527	2030	11	CONFID.
528	2030	12	CONFID.
529	2031	1	CONFID.
530	2031	2	CONFID.
531	2031	3	CONFID.
532	2031	4	CONFID.
533	2031	5	CONFID.
534	2031	6	CONFID.
535	2031	7	CONDID.
536	2031	8	CONFID.
537	2031	9	CONFID.
538	2031	10	CONFID.
539	2031	11	CONFID.
540	2031	12	CONFID.
541	2032	1	CONFID.
542	2032	2	CONFID.
543	2032	3	CONFID.
544	2032	4	CONFID.
545	2032	5	CONFID.
546	2032	6	CONFID.
547	2032	7	CONDID.
548	2032	8	CONFID.
549	2032	9	CONFID.
550	2032	10	CONFID.

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Obs	YEAR	MONTH	Energy
551	2032	11	CONFID.
552	2032	12	CONFID.
553	2033	1	CONFID.
554	2033	2	CONFID.
555	2033	3	CONFID.
556	2033	4	CONFID.
557	2033	5	CONFID.
558	2033	6	CONFID.
559	2033	7	CONDID.
560	2033	8	CONFID.
561	2033	9	CONFID.
562	2033	10	CONFID.
563	2033	11	CONFID.
564	2033	12	CONFID.
565	2034	1	CONFID.
566	2034	2	CONFID.
567	2034	3	CONFID.
568	2034	4	CONFID.
569	2034	5	CONFID.
570	2034	6	CONFID.
571	2034	7	CONDID.
572	2034	8	CONFID.
573	2034	9	CONFID.
574	2034	10	CONFID.
575	2034	11	CONFID.
576	2034	12	CONFID.
577	2035	1	CONFID.
578	2035	2	CONFID.
579	2035	3	CONFID.
580	2035	4	CONFID.
581	2035	5	CONFID.
582	2035	6	CONFID.
583	2035	7	CONDID.
584	2035	8	CONFID.
585	2035	9	CONFID.
586	2035	10	CONFID.
587	2035	11	CONFID.
588	2035	12	CONFID.
589	2036	1	CONFID.
590	2036	2	CONFID.
591	2036	3	CONFID.
592	2036	4	CONFID.
593	2036	5	CONFID.
594	2036	6	CONFID.
595	2036	7	CONDID.
596	2036	8	CONFID.
597	2036	9	CONFID.
598	2036	10	CONFID.
599	2036	11	CONFID.
600	2036	12	CONFID.

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Obs	YEAR	MONTH	Energy
601	2037	1	CONFID.
602	2037	2	CONFID.
603	2037	3	CONFID.
604	2037	4	CONFID.
605	2037	5	CONFID.
606	2037	6	CONFID.
607	2037	7	CONDID.
608	2037	8	CONFID.
609	2037	9	CONFID.
610	2037	10	CONFID.
611	2037	11	CONFID.
612	2037	12	CONFID.
613	2038	1	CONFID.
614	2038	2	CONFID.
615	2038	3	CONFID.
616	2038	4	CONFID.
617	2038	5	CONFID.
618	2038	6	CONFID.
619	2038	7	CONDID.
620	2038	8	CONFID.
621	2038	9	CONFID.
622	2038	10	CONFID.
623	2038	11	CONFID.
624	2038	12	CONFID.
625	2039	1	CONFID.
626	2039	2	CONFID.
627	2039	3	CONFID.
628	2039	4	CONFID.
629	2039	5	CONFID.
630	2039	6	CONFID.
631	2039	7	CONDID.
632	2039	8	CONFID.
633	2039	9	CONFID.
634	2039	10	CONFID.
635	2039	11	CONFID.
636	2039	12	CONFID.
637	2040	1	CONFID.
638	2040	2	CONFID.
639	2040	3	CONFID.
640	2040	4	CONFID.
641	2040	5	CONFID.
642	2040	6	CONFID.
643	2040	7	CONDID.
644	2040	8	CONFID.
645	2040	9	CONFID.
646	2040	10	CONFID.
647	2040	11	CONFID.
648	2040	12	CONFID.
649	2041	1	CONFID.
650	2041	2	CONFID.

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Obs	YEAR	MONTH	Energy
651	2041	3	CONFID.
652	2041	4	CONFID.
653	2041	5	CONFID.
654	2041	6	CONFID.
655	2041	7	CONDID.
656	2041	8	CONFID.
657	2041	9	CONFID.
658	2041	10	CONFID.
659	2041	11	CONFID.
660	2041	12	CONFID.
661	2042	1	CONFID.
662	2042	2	CONFID.
663	2042	3	CONFID.
664	2042	4	CONFID.
665	2042	5	CONFID.
666	2042	6	CONFID.
667	2042	7	CONDID.
668	2042	8	CONFID.
669	2042	9	CONFID.
670	2042	10	CONFID.
671	2042	11	CONFID.
672	2042	12	CONFID.
673	2043	1	CONFID.
674	2043	2	CONFID.
675	2043	3	CONFID.
676	2043	4	CONFID.
677	2043	5	CONFID.
678	2043	6	CONFID.
679	2043	7	CONDID.
680	2043	8	CONFID.
681	2043	9	CONFID.
682	2043	10	CONFID.
683	2043	11	CONFID.
684	2043	12	CONFID.
685	2044	1	CONFID.
686	2044	2	CONFID.
687	2044	3	CONFID.
688	2044	4	CONFID.
689	2044	5	CONFID.
690	2044	6	CONFID.
691	2044	7	CONDID.
692	2044	8	CONFID.
693	2044	9	CONFID.
694	2044	10	CONFID.
695	2044	11	CONFID.
696	2044	12	CONFID.
697	2045	1	CONFID.
698	2045	2	CONFID.
699	2045	3	CONFID.
700	2045	4	CONFID.

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701	2045	5	CONFID.
702	2045	6	CONFID.
703	2045	7	CONDID.
704	2045	8	CONFID.
705	2045	9	CONFID.
706	2045	10	CONFID.
707	2045	11	CONFID.
708	2045	12	CONFID.
709	2046	1	CONFID.
710	2046	2	CONFID.
711	2046	3	CONFID.
712	2046	4	CONFID.
713	2046	5	CONFID.
714	2046	6	CONFID.
715	2046	7	CONDID.
716	2046	8	CONFID.
717	2046	9	CONFID.
718	2046	10	CONFID.
719	2046	11	CONFID.
720	2046	12	CONFID.
721	2047	1	CONFID.
722	2047	2	CONFID.
723	2047	3	CONFID.
724	2047	4	CONFID.
725	2047	5	CONFID.
726	2047	6	CONFID.
727	2047	7	CONDID.
728	2047	8	CONFID.
729	2047	9	CONFID.
730	2047	10	CONFID.
731	2047	11	CONFID.
732	2047	12	CONFID.
733	2048	1	CONFID.
734	2048	2	CONFID.
735	2048	3	CONFID.
736	2048	4	CONFID.
737	2048	5	CONFID.
738	2048	6	CONFID.
739	2048	7	CONDID.
740	2048	8	CONFID.
741	2048	9	CONFID.
742	2048	10	CONFID.
743	2048	11	CONFID.
744	2048	12	CONFID.
745	2049	1	CONFID.
746	2049	2	CONFID.
747	2049	3	CONFID.
748	2049	4	CONFID.
749	2049	5	CONFID.
750	2049	6	CONFID.

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Obs	YEAR	MONTH	Energy
751	2049	7	CONDID.
752	2049	8	CONFID.
753	2049	9	CONFID.
754	2049	10	CONFID.
755	2049	11	CONFID.
756	2049	12	CONFID.
757	2050	1	CONFID.
758	2050	2	CONFID.
759	2050	3	CONFID.
760	2050	4	CONFID.
761	2050	5	CONFID.
762	2050	6	CONFID.
763	2050	7	CONDID.
764	2050	8	CONFID.
765	2050	9	CONFID.
766	2050	10	CONFID.
767	2050	11	CONFID.
768	2050	12	CONFID.
769	2051	1	CONFID.
770	2051	2	CONFID.
771	2051	3	CONFID.
772	2051	4	CONFID.
773	2051	5	CONFID.
774	2051	6	CONFID.
775	2051	7	CONDID.
776	2051	8	CONFID.
777	2051	9	CONFID.
778	2051	10	CONFID.
779	2051	11	CONFID.
780	2051	12	CONFID.
781	2052	1	CONFID.
782	2052	2	CONFID.
783	2052	3	CONFID.
784	2052	4	CONFID.
785	2052	5	CONFID.
786	2052	6	CONFID.
787	2052	7	CONDID.
788	2052	8	CONFID.
789	2052	9	CONFID.
790	2052	10	CONFID.
791	2052	11	CONFID.
792	2052	12	CONFID.
793	2053	1	CONFID.
794	2053	2	CONFID.
795	2053	3	CONFID.
796	2053	4	CONFID.
797	2053	5	CONFID.
798	2053	6	CONFID.
799	2053	7	CONDID.
800	2053	8	CONFID.

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801	2053	9	CONFID.
802	2053	10	CONFID.
803	2053	11	CONFID.
804	2053	12	CONFID.
805	2054	1	CONFID.
806	2054	2	CONFID.
807	2054	3	CONFID.
808	2054	4	CONFID.
809	2054	5	CONFID.
810	2054	6	CONFID.
811	2054	7	CONDID.
812	2054	8	CONFID.
813	2054	9	CONFID.
814	2054	10	CONFID.
815	2054	11	CONFID.
816	2054	12	CONFID.
817	2055	1	CONFID.
818	2055	2	CONFID.
819	2055	3	CONFID.
820	2055	4	CONFID.
821	2055	5	CONFID.
822	2055	6	CONFID.
823	2055	7	CONDID.
824	2055	8	CONFID.
825	2055	9	CONFID.
826	2055	10	CONFID.
827	2055	11	CONFID.
828	2055	12	CONFID.
829	2056	1	CONFID.
830	2056	2	CONFID.
831	2056	3	CONFID.
832	2056	4	CONFID.
833	2056	5	CONFID.
834	2056	6	CONFID.
835	2056	7	CONDID.
836	2056	8	CONFID.
837	2056	9	CONFID.
838	2056	10	CONFID.
839	2056	11	CONFID.
840	2056	12	CONFID.
841	2057	1	CONFID.
842	2057	2	CONFID.
843	2057	3	CONFID.
844	2057	4	CONFID.
845	2057	5	CONFID.
846	2057	6	CONFID.
847	2057	7	CONDID.
848	2057	8	CONFID.
849	2057	9	CONFID.
850	2057	10	CONFID.



Indiana Michigan Power Company  
I.M.P.A.  
Endogenous Variables

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Obs	YEAR	MONTH	Energy
851	2057	11	CONFID.
852	2057	12	CONFID.

Indiana Michigan Power Company  
I.M.P.A. Energy Sales  
Actual and Forecast

Indiana Michigan Power Company  
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Year	Energy	Growth* Rate
2000	CONFID.	N/A
2001	CONFID.	N/A
2002	CONFID.	N/A
2003	CONFID.	N/A
2004	CONFID.	N/A
2005	CONFID.	N/A
2006	CONFID.	N/A
2007	CONFID.	N/A
2008	CONFID.	N/A
2009	CONFID.	N/A
2010	CONFID.	N/A
2011	CONFID.	N/A
2012	CONFID.	N/A
2013	CONFID.	N/A
2014	CONFID.	N/A
2015	CONFID.	N/A
2016	CONFID.	N/A
2017	CONFID.	N/A
2018	CONFID.	N/A
2019	CONFID.	N/A
2020	CONFID.	N/A
2021	CONFID.	N/A
2022	CONFID.	N/A
2023	CONFID.	N/A
2024	CONFID.	N/A
2025	CONFID.	N/A
2026	CONFID.	N/A
2027	CONFID.	N/A
2028	CONFID.	N/A
2029	CONFID.	N/A
2030	CONFID.	N/A
2031	CONFID.	N/A
2032	CONFID.	N/A
2033	CONFID.	N/A
2034	CONFID.	N/A
2035	CONFID.	N/A
2036	CONFID.	N/A
2037	CONFID.	N/A
2038	CONFID.	N/A
2039	CONFID.	N/A
2040	CONFID.	N/A
2041	CONFID.	N/A
2042	CONFID.	N/A
2043	CONFID.	N/A
2044	CONFID.	N/A
2045	CONFID.	N/A
2046	CONFID.	N/A
2047	CONFID.	N/A
2048	CONFID.	N/A

Indiana Michigan Power Company  
I.M.P.A. Energy Sales  
Actual and Forecast

Indiana Michigan Power Company  
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Year	Energy	Growth* Rate
2049	CONFID.	N/A
2050	CONFID.	N/A
2051	CONFID.	N/A
2052	CONFID.	N/A
2053	CONFID.	N/A
2054	CONFID.	N/A
2055	CONFID.	N/A
2056	CONFID.	N/A
2057	CONFID.	N/A

The SAS System  
City of Dowagiac  
Endogenous Variables

Indiana Michigan Power Company  
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The MEANS Procedure

Variable	Label	Mean
YEAR	Year	2027.50
MONTH	Month	6.500000

The SAS System  
City of Dowagiac  
Endogenous Variables

Indiana Michigan Power Company  
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Obs	YEAR	MONTH	Energy
1	1998	1	CONFID.
2	1998	2	CONFID.
3	1998	3	CONFID.
4	1998	4	CONFID.
5	1998	5	CONFID.
6	1998	6	CONFID.
7	1998	7	CONDID.
8	1998	8	CONFID.
9	1998	9	CONFID.
10	1998	10	CONFID.
11	1998	11	CONFID.
12	1998	12	CONFID.
13	1999	1	CONFID.
14	1999	2	CONFID.
15	1999	3	CONFID.
16	1999	4	CONFID.
17	1999	5	CONFID.
18	1999	6	CONFID.
19	1999	7	CONDID.
20	1999	8	CONFID.
21	1999	9	CONFID.
22	1999	10	CONFID.
23	1999	11	CONFID.
24	1999	12	CONFID.
25	2000	1	CONFID.
26	2000	2	CONFID.
27	2000	3	CONFID.
28	2000	4	CONFID.
29	2000	5	CONFID.
30	2000	6	CONFID.
31	2000	7	CONDID.
32	2000	8	CONFID.
33	2000	9	CONFID.
34	2000	10	CONFID.
35	2000	11	CONFID.
36	2000	12	CONFID.
37	2001	1	CONFID.
38	2001	2	CONFID.
39	2001	3	CONFID.
40	2001	4	CONFID.
41	2001	5	CONFID.
42	2001	6	CONFID.
43	2001	7	CONDID.
44	2001	8	CONFID.
45	2001	9	CONFID.
46	2001	10	CONFID.
47	2001	11	CONFID.
48	2001	12	CONFID.
49	2002	1	CONFID.
50	2002	2	CONFID.

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Endogenous Variables

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Obs	YEAR	MONTH	Energy
51	2002	3	CONFID.
52	2002	4	CONFID.
53	2002	5	CONFID.
54	2002	6	CONFID.
55	2002	7	CONDID.
56	2002	8	CONFID.
57	2002	9	CONFID.
58	2002	10	CONFID.
59	2002	11	CONFID.
60	2002	12	CONFID.
61	2003	1	CONFID.
62	2003	2	CONFID.
63	2003	3	CONFID.
64	2003	4	CONFID.
65	2003	5	CONFID.
66	2003	6	CONFID.
67	2003	7	CONDID.
68	2003	8	CONFID.
69	2003	9	CONFID.
70	2003	10	CONFID.
71	2003	11	CONFID.
72	2003	12	CONFID.
73	2004	1	CONFID.
74	2004	2	CONFID.
75	2004	3	CONFID.
76	2004	4	CONFID.
77	2004	5	CONFID.
78	2004	6	CONFID.
79	2004	7	CONDID.
80	2004	8	CONFID.
81	2004	9	CONFID.
82	2004	10	CONFID.
83	2004	11	CONFID.
84	2004	12	CONFID.
85	2005	1	CONFID.
86	2005	2	CONFID.
87	2005	3	CONFID.
88	2005	4	CONFID.
89	2005	5	CONFID.
90	2005	6	CONFID.
91	2005	7	CONDID.
92	2005	8	CONFID.
93	2005	9	CONFID.
94	2005	10	CONFID.
95	2005	11	CONFID.
96	2005	12	CONFID.
97	2006	1	CONFID.
98	2006	2	CONFID.
99	2006	3	CONFID.
100	2006	4	CONFID.

The SAS System  
City of Dowagiac  
Endogenous Variables

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Obs	YEAR	MONTH	Energy
101	2006	5	CONFID.
102	2006	6	CONFID.
103	2006	7	CONDID.
104	2006	8	CONFID.
105	2006	9	CONFID.
106	2006	10	CONFID.
107	2006	11	CONFID.
108	2006	12	CONFID.
109	2007	1	CONFID.
110	2007	2	CONFID.
111	2007	3	CONFID.
112	2007	4	CONFID.
113	2007	5	CONFID.
114	2007	6	CONFID.
115	2007	7	CONDID.
116	2007	8	CONFID.
117	2007	9	CONFID.
118	2007	10	CONFID.
119	2007	11	CONFID.
120	2007	12	CONFID.
121	2008	1	CONFID.
122	2008	2	CONFID.
123	2008	3	CONFID.
124	2008	4	CONFID.
125	2008	5	CONFID.
126	2008	6	CONFID.
127	2008	7	CONDID.
128	2008	8	CONFID.
129	2008	9	CONFID.
130	2008	10	CONFID.
131	2008	11	CONFID.
132	2008	12	CONFID.
133	2009	1	CONFID.
134	2009	2	CONFID.
135	2009	3	CONFID.
136	2009	4	CONFID.
137	2009	5	CONFID.
138	2009	6	CONFID.
139	2009	7	CONDID.
140	2009	8	CONFID.
141	2009	9	CONFID.
142	2009	10	CONFID.
143	2009	11	CONFID.
144	2009	12	CONFID.
145	2010	1	CONFID.
146	2010	2	CONFID.
147	2010	3	CONFID.
148	2010	4	CONFID.
149	2010	5	CONFID.
150	2010	6	CONFID.

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Endogenous Variables

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Obs	YEAR	MONTH	Energy
151	2010	7	CONDID.
152	2010	8	CONFID.
153	2010	9	CONFID.
154	2010	10	CONFID.
155	2010	11	CONFID.
156	2010	12	CONFID.
157	2011	1	CONFID.
158	2011	2	CONFID.
159	2011	3	CONFID.
160	2011	4	CONFID.
161	2011	5	CONFID.
162	2011	6	CONFID.
163	2011	7	CONDID.
164	2011	8	CONFID.
165	2011	9	CONFID.
166	2011	10	CONFID.
167	2011	11	CONFID.
168	2011	12	CONFID.
169	2012	1	CONFID.
170	2012	2	CONFID.
171	2012	3	CONFID.
172	2012	4	CONFID.
173	2012	5	CONFID.
174	2012	6	CONFID.
175	2012	7	CONDID.
176	2012	8	CONFID.
177	2012	9	CONFID.
178	2012	10	CONFID.
179	2012	11	CONFID.
180	2012	12	CONFID.
181	2013	1	CONFID.
182	2013	2	CONFID.
183	2013	3	CONFID.
184	2013	4	CONFID.
185	2013	5	CONFID.
186	2013	6	CONFID.
187	2013	7	CONDID.
188	2013	8	CONFID.
189	2013	9	CONFID.
190	2013	10	CONFID.
191	2013	11	CONFID.
192	2013	12	CONFID.
193	2014	1	CONFID.
194	2014	2	CONFID.
195	2014	3	CONFID.
196	2014	4	CONFID.
197	2014	5	CONFID.
198	2014	6	CONFID.
199	2014	7	CONDID.
200	2014	8	CONFID.



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Obs	YEAR	MONTH	Energy
201	2014	9	CONFID.
202	2014	10	CONFID.
203	2014	11	CONFID.
204	2014	12	CONFID.
205	2015	1	CONFID.
206	2015	2	CONFID.
207	2015	3	CONFID.
208	2015	4	CONFID.
209	2015	5	CONFID.
210	2015	6	CONFID.
211	2015	7	CONDID.
212	2015	8	CONFID.
213	2015	9	CONFID.
214	2015	10	CONFID.
215	2015	11	CONFID.
216	2015	12	CONFID.
217	2016	1	CONFID.
218	2016	2	CONFID.
219	2016	3	CONFID.
220	2016	4	CONFID.
221	2016	5	CONFID.
222	2016	6	CONFID.
223	2016	7	CONDID.
224	2016	8	CONFID.
225	2016	9	CONFID.
226	2016	10	CONFID.
227	2016	11	CONFID.
228	2016	12	CONFID.
229	2017	1	CONFID.
230	2017	2	CONFID.
231	2017	3	CONFID.
232	2017	4	CONFID.
233	2017	5	CONFID.
234	2017	6	CONFID.
235	2017	7	CONDID.
236	2017	8	CONFID.
237	2017	9	CONFID.
238	2017	10	CONFID.
239	2017	11	CONFID.
240	2017	12	CONFID.
241	2018	1	CONFID.
242	2018	2	CONFID.
243	2018	3	CONFID.
244	2018	4	CONFID.
245	2018	5	CONFID.
246	2018	6	CONFID.
247	2018	7	CONDID.
248	2018	8	CONFID.
249	2018	9	CONFID.
250	2018	10	CONFID.

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Obs	YEAR	MONTH	Energy
251	2018	11	CONFID.
252	2018	12	CONFID.
253	2019	1	CONFID.
254	2019	2	CONFID.
255	2019	3	CONFID.
256	2019	4	CONFID.
257	2019	5	CONFID.
258	2019	6	CONFID.
259	2019	7	CONDID.
260	2019	8	CONFID.
261	2019	9	CONFID.
262	2019	10	CONFID.
263	2019	11	CONFID.
264	2019	12	CONFID.
265	2020	1	CONFID.
266	2020	2	CONFID.
267	2020	3	CONFID.
268	2020	4	CONFID.
269	2020	5	CONFID.
270	2020	6	CONFID.
271	2020	7	CONDID.
272	2020	8	CONFID.
273	2020	9	CONFID.
274	2020	10	CONFID.
275	2020	11	CONFID.
276	2020	12	CONFID.
277	2021	1	CONFID.
278	2021	2	CONFID.
279	2021	3	CONFID.
280	2021	4	CONFID.
281	2021	5	CONFID.
282	2021	6	CONFID.
283	2021	7	CONDID.
284	2021	8	CONFID.
285	2021	9	CONFID.
286	2021	10	CONFID.
287	2021	11	CONFID.
288	2021	12	CONFID.
289	2022	1	CONFID.
290	2022	2	CONFID.
291	2022	3	CONFID.
292	2022	4	CONFID.
293	2022	5	CONFID.
294	2022	6	CONFID.
295	2022	7	CONDID.
296	2022	8	CONFID.
297	2022	9	CONFID.
298	2022	10	CONFID.
299	2022	11	CONFID.
300	2022	12	CONFID.

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Obs	YEAR	MONTH	Energy
301	2023	1	CONFID.
302	2023	2	CONFID.
303	2023	3	CONFID.
304	2023	4	CONFID.
305	2023	5	CONFID.
306	2023	6	CONFID.
307	2023	7	CONDID.
308	2023	8	CONFID.
309	2023	9	CONFID.
310	2023	10	CONFID.
311	2023	11	CONFID.
312	2023	12	CONFID.
313	2024	1	CONFID.
314	2024	2	CONFID.
315	2024	3	CONFID.
316	2024	4	CONFID.
317	2024	5	CONFID.
318	2024	6	CONFID.
319	2024	7	CONDID.
320	2024	8	CONFID.
321	2024	9	CONFID.
322	2024	10	CONFID.
323	2024	11	CONFID.
324	2024	12	CONFID.
325	2025	1	CONFID.
326	2025	2	CONFID.
327	2025	3	CONFID.
328	2025	4	CONFID.
329	2025	5	CONFID.
330	2025	6	CONFID.
331	2025	7	CONDID.
332	2025	8	CONFID.
333	2025	9	CONFID.
334	2025	10	CONFID.
335	2025	11	CONFID.
336	2025	12	CONFID.
337	2026	1	CONFID.
338	2026	2	CONFID.
339	2026	3	CONFID.
340	2026	4	CONFID.
341	2026	5	CONFID.
342	2026	6	CONFID.
343	2026	7	CONDID.
344	2026	8	CONFID.
345	2026	9	CONFID.
346	2026	10	CONFID.
347	2026	11	CONFID.
348	2026	12	CONFID.
349	2027	1	CONFID.
350	2027	2	CONFID.

The SAS System  
City of Dowagiac  
Endogenous Variables

Indiana Michigan Power Company  
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Obs	YEAR	MONTH	Energy
351	2027	3	CONFID.
352	2027	4	CONFID.
353	2027	5	CONFID.
354	2027	6	CONFID.
355	2027	7	CONDID.
356	2027	8	CONFID.
357	2027	9	CONFID.
358	2027	10	CONFID.
359	2027	11	CONFID.
360	2027	12	CONFID.
361	2028	1	CONFID.
362	2028	2	CONFID.
363	2028	3	CONFID.
364	2028	4	CONFID.
365	2028	5	CONFID.
366	2028	6	CONFID.
367	2028	7	CONDID.
368	2028	8	CONFID.
369	2028	9	CONFID.
370	2028	10	CONFID.
371	2028	11	CONFID.
372	2028	12	CONFID.
373	2029	1	CONFID.
374	2029	2	CONFID.
375	2029	3	CONFID.
376	2029	4	CONFID.
377	2029	5	CONFID.
378	2029	6	CONFID.
379	2029	7	CONDID.
380	2029	8	CONFID.
381	2029	9	CONFID.
382	2029	10	CONFID.
383	2029	11	CONFID.
384	2029	12	CONFID.
385	2030	1	CONFID.
386	2030	2	CONFID.
387	2030	3	CONFID.
388	2030	4	CONFID.
389	2030	5	CONFID.
390	2030	6	CONFID.
391	2030	7	CONDID.
392	2030	8	CONFID.
393	2030	9	CONFID.
394	2030	10	CONFID.
395	2030	11	CONFID.
396	2030	12	CONFID.
397	2031	1	CONFID.
398	2031	2	CONFID.
399	2031	3	CONFID.
400	2031	4	CONFID.

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Obs	YEAR	MONTH	Energy
401	2031	5	CONFID.
402	2031	6	CONFID.
403	2031	7	CONDID.
404	2031	8	CONFID.
405	2031	9	CONFID.
406	2031	10	CONFID.
407	2031	11	CONFID.
408	2031	12	CONFID.
409	2032	1	CONFID.
410	2032	2	CONFID.
411	2032	3	CONFID.
412	2032	4	CONFID.
413	2032	5	CONFID.
414	2032	6	CONFID.
415	2032	7	CONDID.
416	2032	8	CONFID.
417	2032	9	CONFID.
418	2032	10	CONFID.
419	2032	11	CONFID.
420	2032	12	CONFID.
421	2033	1	CONFID.
422	2033	2	CONFID.
423	2033	3	CONFID.
424	2033	4	CONFID.
425	2033	5	CONFID.
426	2033	6	CONFID.
427	2033	7	CONDID.
428	2033	8	CONFID.
429	2033	9	CONFID.
430	2033	10	CONFID.
431	2033	11	CONFID.
432	2033	12	CONFID.
433	2034	1	CONFID.
434	2034	2	CONFID.
435	2034	3	CONFID.
436	2034	4	CONFID.
437	2034	5	CONFID.
438	2034	6	CONFID.
439	2034	7	CONDID.
440	2034	8	CONFID.
441	2034	9	CONFID.
442	2034	10	CONFID.
443	2034	11	CONFID.
444	2034	12	CONFID.
445	2035	1	CONFID.
446	2035	2	CONFID.
447	2035	3	CONFID.
448	2035	4	CONFID.
449	2035	5	CONFID.
450	2035	6	CONFID.

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Obs	YEAR	MONTH	Energy
451	2035	7	CONDID.
452	2035	8	CONFID.
453	2035	9	CONFID.
454	2035	10	CONFID.
455	2035	11	CONFID.
456	2035	12	CONFID.
457	2036	1	CONFID.
458	2036	2	CONFID.
459	2036	3	CONFID.
460	2036	4	CONFID.
461	2036	5	CONFID.
462	2036	6	CONFID.
463	2036	7	CONDID.
464	2036	8	CONFID.
465	2036	9	CONFID.
466	2036	10	CONFID.
467	2036	11	CONFID.
468	2036	12	CONFID.
469	2037	1	CONFID.
470	2037	2	CONFID.
471	2037	3	CONFID.
472	2037	4	CONFID.
473	2037	5	CONFID.
474	2037	6	CONFID.
475	2037	7	CONDID.
476	2037	8	CONFID.
477	2037	9	CONFID.
478	2037	10	CONFID.
479	2037	11	CONFID.
480	2037	12	CONFID.
481	2038	1	CONFID.
482	2038	2	CONFID.
483	2038	3	CONFID.
484	2038	4	CONFID.
485	2038	5	CONFID.
486	2038	6	CONFID.
487	2038	7	CONDID.
488	2038	8	CONFID.
489	2038	9	CONFID.
490	2038	10	CONFID.
491	2038	11	CONFID.
492	2038	12	CONFID.
493	2039	1	CONFID.
494	2039	2	CONFID.
495	2039	3	CONFID.
496	2039	4	CONFID.
497	2039	5	CONFID.
498	2039	6	CONFID.
499	2039	7	CONDID.
500	2039	8	CONFID.

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Obs	YEAR	MONTH	Energy
501	2039	9	CONFID.
502	2039	10	CONFID.
503	2039	11	CONFID.
504	2039	12	CONFID.
505	2040	1	CONFID.
506	2040	2	CONFID.
507	2040	3	CONFID.
508	2040	4	CONFID.
509	2040	5	CONFID.
510	2040	6	CONFID.
511	2040	7	CONDID.
512	2040	8	CONFID.
513	2040	9	CONFID.
514	2040	10	CONFID.
515	2040	11	CONFID.
516	2040	12	CONFID.
517	2041	1	CONFID.
518	2041	2	CONFID.
519	2041	3	CONFID.
520	2041	4	CONFID.
521	2041	5	CONFID.
522	2041	6	CONFID.
523	2041	7	CONDID.
524	2041	8	CONFID.
525	2041	9	CONFID.
526	2041	10	CONFID.
527	2041	11	CONFID.
528	2041	12	CONFID.
529	2042	1	CONFID.
530	2042	2	CONFID.
531	2042	3	CONFID.
532	2042	4	CONFID.
533	2042	5	CONFID.
534	2042	6	CONFID.
535	2042	7	CONDID.
536	2042	8	CONFID.
537	2042	9	CONFID.
538	2042	10	CONFID.
539	2042	11	CONFID.
540	2042	12	CONFID.
541	2043	1	CONFID.
542	2043	2	CONFID.
543	2043	3	CONFID.
544	2043	4	CONFID.
545	2043	5	CONFID.
546	2043	6	CONFID.
547	2043	7	CONDID.
548	2043	8	CONFID.
549	2043	9	CONFID.
550	2043	10	CONFID.

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Obs	YEAR	MONTH	Energy
551	2043	11	CONFID.
552	2043	12	CONFID.
553	2044	1	CONFID.
554	2044	2	CONFID.
555	2044	3	CONFID.
556	2044	4	CONFID.
557	2044	5	CONFID.
558	2044	6	CONFID.
559	2044	7	CONDID.
560	2044	8	CONFID.
561	2044	9	CONFID.
562	2044	10	CONFID.
563	2044	11	CONFID.
564	2044	12	CONFID.
565	2045	1	CONFID.
566	2045	2	CONFID.
567	2045	3	CONFID.
568	2045	4	CONFID.
569	2045	5	CONFID.
570	2045	6	CONFID.
571	2045	7	CONDID.
572	2045	8	CONFID.
573	2045	9	CONFID.
574	2045	10	CONFID.
575	2045	11	CONFID.
576	2045	12	CONFID.
577	2046	1	CONFID.
578	2046	2	CONFID.
579	2046	3	CONFID.
580	2046	4	CONFID.
581	2046	5	CONFID.
582	2046	6	CONFID.
583	2046	7	CONDID.
584	2046	8	CONFID.
585	2046	9	CONFID.
586	2046	10	CONFID.
587	2046	11	CONFID.
588	2046	12	CONFID.
589	2047	1	CONFID.
590	2047	2	CONFID.
591	2047	3	CONFID.
592	2047	4	CONFID.
593	2047	5	CONFID.
594	2047	6	CONFID.
595	2047	7	CONDID.
596	2047	8	CONFID.
597	2047	9	CONFID.
598	2047	10	CONFID.
599	2047	11	CONFID.
600	2047	12	CONFID.



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Obs	YEAR	MONTH	Energy
601	2048	1	CONFID.
602	2048	2	CONFID.
603	2048	3	CONFID.
604	2048	4	CONFID.
605	2048	5	CONFID.
606	2048	6	CONFID.
607	2048	7	CONDID.
608	2048	8	CONFID.
609	2048	9	CONFID.
610	2048	10	CONFID.
611	2048	11	CONFID.
612	2048	12	CONFID.
613	2049	1	CONFID.
614	2049	2	CONFID.
615	2049	3	CONFID.
616	2049	4	CONFID.
617	2049	5	CONFID.
618	2049	6	CONFID.
619	2049	7	CONDID.
620	2049	8	CONFID.
621	2049	9	CONFID.
622	2049	10	CONFID.
623	2049	11	CONFID.
624	2049	12	CONFID.
625	2050	1	CONFID.
626	2050	2	CONFID.
627	2050	3	CONFID.
628	2050	4	CONFID.
629	2050	5	CONFID.
630	2050	6	CONFID.
631	2050	7	CONDID.
632	2050	8	CONFID.
633	2050	9	CONFID.
634	2050	10	CONFID.
635	2050	11	CONFID.
636	2050	12	CONFID.
637	2051	1	CONFID.
638	2051	2	CONFID.
639	2051	3	CONFID.
640	2051	4	CONFID.
641	2051	5	CONFID.
642	2051	6	CONFID.
643	2051	7	CONDID.
644	2051	8	CONFID.
645	2051	9	CONFID.
646	2051	10	CONFID.
647	2051	11	CONFID.
648	2051	12	CONFID.
649	2052	1	CONFID.
650	2052	2	CONFID.

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Obs	YEAR	MONTH	Energy
651	2052	3	CONFID.
652	2052	4	CONFID.
653	2052	5	CONFID.
654	2052	6	CONFID.
655	2052	7	CONDID.
656	2052	8	CONFID.
657	2052	9	CONFID.
658	2052	10	CONFID.
659	2052	11	CONFID.
660	2052	12	CONFID.
661	2053	1	CONFID.
662	2053	2	CONFID.
663	2053	3	CONFID.
664	2053	4	CONFID.
665	2053	5	CONFID.
666	2053	6	CONFID.
667	2053	7	CONDID.
668	2053	8	CONFID.
669	2053	9	CONFID.
670	2053	10	CONFID.
671	2053	11	CONFID.
672	2053	12	CONFID.
673	2054	1	CONFID.
674	2054	2	CONFID.
675	2054	3	CONFID.
676	2054	4	CONFID.
677	2054	5	CONFID.
678	2054	6	CONFID.
679	2054	7	CONDID.
680	2054	8	CONFID.
681	2054	9	CONFID.
682	2054	10	CONFID.
683	2054	11	CONFID.
684	2054	12	CONFID.
685	2055	1	CONFID.
686	2055	2	CONFID.
687	2055	3	CONFID.
688	2055	4	CONFID.
689	2055	5	CONFID.
690	2055	6	CONFID.
691	2055	7	CONDID.
692	2055	8	CONFID.
693	2055	9	CONFID.
694	2055	10	CONFID.
695	2055	11	CONFID.
696	2055	12	CONFID.
697	2056	1	CONFID.
698	2056	2	CONFID.
699	2056	3	CONFID.
700	2056	4	CONFID.

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Obs	YEAR	MONTH	Energy
701	2056	5	CONFID.
702	2056	6	CONFID.
703	2056	7	CONDID.
704	2056	8	CONFID.
705	2056	9	CONFID.
706	2056	10	CONFID.
707	2056	11	CONFID.
708	2056	12	CONFID.
709	2057	1	CONFID.
710	2057	2	CONFID.
711	2057	3	CONFID.
712	2057	4	CONFID.
713	2057	5	CONFID.
714	2057	6	CONFID.
715	2057	7	CONDID.
716	2057	8	CONFID.
717	2057	9	CONFID.
718	2057	10	CONFID.
719	2057	11	CONFID.
720	2057	12	CONFID.

The MEANS Procedure

Variable	Label	Mean
YEAR	Year	2027.50
MONTH	Month	6.5000000
bcdd65	Service Area Cooling Degree Days	68.7267366
bhdd55	Service Area Heating Degree Days	324.1321879
N_imm	Service Area Population	328.8923694
lcom_imm	Service Area Commercial Employment	88.4052285
d04on	Binary Variable - 2004 On	0.9000000
d08on	Binary Variable - 2008 On	0.8333333
djun10on	Binary Variable - June 2010 On	0.7930556
jan17on	Binary Variable - January 2017 On	0.6833333
apr19on	Binary Variable - April 2019 On	0.6458333
apr20	Binary Variable - April 2020	0.0013889
may20	Binary Variable - May 2020	0.0013889

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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
1	1998	1	0.000	699.51	349.866	83.516	0	0	0	0	0	0	0
2	1998	2	0.000	713.49	349.903	83.605	0	0	0	0	0	0	0
3	1998	3	0.000	581.64	349.939	83.712	0	0	0	0	0	0	0
4	1998	4	8.247	387.31	349.980	83.829	0	0	0	0	0	0	0
5	1998	5	16.003	89.31	350.022	83.961	0	0	0	0	0	0	0
6	1998	6	84.825	10.44	350.064	84.106	0	0	0	0	0	0	0
7	1998	7	244.527	4.12	350.105	84.269	0	0	0	0	0	0	0
8	1998	8	245.444	0.00	350.148	84.448	0	0	0	0	0	0	0
9	1998	9	206.729	0.20	350.191	84.637	0	0	0	0	0	0	0
10	1998	10	88.425	31.51	350.238	84.849	0	0	0	0	0	0	0
11	1998	11	4.516	204.50	350.290	85.075	0	0	0	0	0	0	0
12	1998	12	0.000	337.83	350.346	85.321	0	0	0	0	0	0	0
13	1999	1	0.000	934.39	350.411	85.589	0	0	0	0	0	0	0
14	1999	2	0.000	794.71	350.482	85.857	0	0	0	0	0	0	0
15	1999	3	0.000	728.44	350.562	86.150	0	0	0	0	0	0	0
16	1999	4	0.000	426.52	350.658	86.471	0	0	0	0	0	0	0
17	1999	5	17.017	100.01	350.766	86.805	0	0	0	0	0	0	0
18	1999	6	135.910	7.07	350.888	87.164	0	0	0	0	0	0	0
19	1999	7	272.606	0.00	351.029	87.543	0	0	0	0	0	0	0
20	1999	8	340.708	0.00	351.184	87.941	0	0	0	0	0	0	0
21	1999	9	156.593	0.62	351.349	88.341	0	0	0	0	0	0	0
22	1999	10	44.540	50.76	351.519	88.742	0	0	0	0	0	0	0
23	1999	11	3.469	175.44	351.689	89.134	0	0	0	0	0	0	0
24	1999	12	0.196	396.87	351.856	89.511	0	0	0	0	0	0	0
25	2000	1	0.000	757.11	352.018	89.862	0	0	0	0	0	0	0
26	2000	2	0.000	931.70	352.161	90.176	0	0	0	0	0	0	0
27	2000	3	2.520	465.03	352.286	90.447	0	0	0	0	0	0	0
28	2000	4	1.538	333.77	352.390	90.669	0	0	0	0	0	0	0
29	2000	5	34.526	153.55	352.470	90.833	0	0	0	0	0	0	0
30	2000	6	77.789	18.75	352.517	90.928	0	0	0	0	0	0	0
31	2000	7	158.524	1.83	352.527	90.952	0	0	0	0	0	0	0
32	2000	8	162.680	0.00	352.501	90.893	0	0	0	0	0	0	0
33	2000	9	190.890	2.85	352.444	90.772	0	0	0	0	0	0	0
34	2000	10	47.682	66.17	352.360	90.605	0	0	0	0	0	0	0
35	2000	11	3.240	178.52	352.255	90.391	0	0	0	0	0	0	0
36	2000	12	0.000	773.18	352.135	90.146	0	0	0	0	0	0	0
37	2001	1	0.000	1113.56	351.999	89.883	0	0	0	0	0	0	0
38	2001	2	0.000	892.11	351.865	89.619	0	0	0	0	0	0	0
39	2001	3	0.000	736.85	351.728	89.359	0	0	0	0	0	0	0
40	2001	4	3.240	468.54	351.590	89.103	0	0	0	0	0	0	0
41	2001	5	39.107	84.14	351.461	88.874	0	0	0	0	0	0	0
42	2001	6	65.877	28.60	351.345	88.677	0	0	0	0	0	0	0
43	2001	7	184.115	3.24	351.248	88.529	0	0	0	0	0	0	0
44	2001	8	306.084	0.00	351.169	88.427	0	0	0	0	0	0	0
45	2001	9	173.381	0.98	351.108	88.367	0	0	0	0	0	0	0
46	2001	10	25.395	54.49	351.066	88.342	0	0	0	0	0	0	0
47	2001	11	1.342	174.13	351.038	88.345	0	0	0	0	0	0	0
48	2001	12	0.000	287.53	351.022	88.360	0	0	0	0	0	0	0
49	2002	1	0.000	754.66	351.018	88.392	0	0	0	0	0	0	0
50	2002	2	0.000	648.89	351.023	88.426	0	0	0	0	0	0	0

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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
51	2002	3	0.000	653.01	351.035	88.449	0	0	0	0	0	0	0
52	2002	4	12.469	509.15	351.053	88.464	0	0	0	0	0	0	0
53	2002	5	26.802	187.78	351.076	88.456	0	0	0	0	0	0	0
54	2002	6	66.139	71.37	351.100	88.427	0	0	0	0	0	0	0
55	2002	7	306.804	0.00	351.126	88.355	0	0	0	0	0	0	0
56	2002	8	331.283	0.00	351.152	88.250	0	0	0	0	0	0	0
57	2002	9	219.132	0.00	351.176	88.111	0	0	0	0	0	0	0
58	2002	10	93.269	46.67	351.201	87.947	0	0	0	0	0	0	0
59	2002	11	5.792	339.10	351.227	87.757	0	0	0	0	0	0	0
60	2002	12	0.000	671.50	351.255	87.552	0	0	0	0	0	0	0
61	2003	1	0.000	823.87	351.283	87.328	0	0	0	0	0	0	0
62	2003	2	0.000	1037.67	351.312	87.111	0	0	0	0	0	0	0
63	2003	3	0.000	881.44	351.342	86.890	0	0	0	0	0	0	0
64	2003	4	4.025	367.74	351.375	86.667	0	0	0	0	0	0	0
65	2003	5	9.752	145.40	351.411	86.446	0	0	0	0	0	0	0
66	2003	6	18.196	38.13	351.451	86.241	0	0	0	0	0	0	0
67	2003	7	176.556	2.00	351.492	86.053	0	0	0	0	0	0	0
68	2003	8	190.006	0.00	351.538	85.881	0	0	0	0	0	0	0
69	2003	9	201.166	0.13	351.581	85.734	0	0	0	0	0	0	0
70	2003	10	32.955	86.66	351.626	85.607	0	0	0	0	0	0	0
71	2003	11	0.982	220.64	351.664	85.505	0	0	0	0	0	0	0
72	2003	12	0.000	501.98	351.698	85.423	0	0	0	0	0	0	0
73	2004	1	0.000	745.79	351.724	85.363	1	0	0	0	0	0	0
74	2004	2	0.000	1059.60	351.740	85.326	1	0	0	0	0	0	0
75	2004	3	0.000	678.05	351.745	85.316	1	0	0	0	0	0	0
76	2004	4	5.989	364.01	351.737	85.327	1	0	0	0	0	0	0
77	2004	5	54.947	128.65	351.712	85.363	1	0	0	0	0	0	0
78	2004	6	102.792	14.46	351.671	85.420	1	0	0	0	0	0	0
79	2004	7	153.746	0.13	351.610	85.506	1	0	0	0	0	0	0
80	2004	8	154.204	0.00	351.528	85.617	1	0	0	0	0	0	0
81	2004	9	129.005	0.00	351.430	85.745	1	0	0	0	0	0	0
82	2004	10	46.143	51.97	351.318	85.881	1	0	0	0	0	0	0
83	2004	11	2.749	182.02	351.195	86.025	1	0	0	0	0	0	0
84	2004	12	0.196	494.26	351.060	86.173	1	0	0	0	0	0	0
85	2005	1	0.000	839.71	350.917	86.312	1	0	0	0	0	0	0
86	2005	2	0.000	914.16	350.774	86.435	1	0	0	0	0	0	0
87	2005	3	0.000	766.63	350.630	86.544	1	0	0	0	0	0	0
88	2005	4	2.127	444.15	350.481	86.638	1	0	0	0	0	0	0
89	2005	5	13.107	157.38	350.332	86.698	1	0	0	0	0	0	0
90	2005	6	90.863	23.12	350.189	86.724	1	0	0	0	0	0	0
91	2005	7	291.832	0.00	350.052	86.722	1	0	0	0	0	0	0
92	2005	8	308.424	0.00	349.920	86.671	1	0	0	0	0	0	0
93	2005	9	203.505	0.00	349.799	86.593	1	0	0	0	0	0	0
94	2005	10	97.294	31.19	349.686	86.495	1	0	0	0	0	0	0
95	2005	11	8.149	206.78	349.581	86.379	1	0	0	0	0	0	0
96	2005	12	0.000	703.83	349.482	86.253	1	0	0	0	0	0	0
97	2006	1	0.000	760.11	349.391	86.127	1	0	0	0	0	0	0
98	2006	2	0.000	640.67	349.310	86.009	1	0	0	0	0	0	0
99	2006	3	0.000	717.25	349.238	85.905	1	0	0	0	0	0	0
100	2006	4	1.178	415.59	349.170	85.819	1	0	0	0	0	0	0

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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
101	2006	5	2.127	99.14	349.110	85.763	1	0	0	0	0	0	0
102	2006	6	82.502	51.00	349.057	85.748	1	0	0	0	0	0	0
103	2006	7	175.443	0.00	349.012	85.766	1	0	0	0	0	0	0
104	2006	8	289.067	0.00	348.973	85.837	1	0	0	0	0	0	0
105	2006	9	123.671	2.08	348.943	85.942	1	0	0	0	0	0	0
106	2006	10	14.072	73.08	348.917	86.085	1	0	0	0	0	0	0
107	2006	11	0.540	332.10	348.897	86.259	1	0	0	0	0	0	0
108	2006	12	0.000	481.54	348.884	86.455	1	0	0	0	0	0	0
109	2007	1	0.000	565.53	348.874	86.671	1	0	0	0	0	0	0
110	2007	2	0.000	990.30	348.868	86.894	1	0	0	0	0	0	0
111	2007	3	0.327	890.94	348.866	87.122	1	0	0	0	0	0	0
112	2007	4	8.623	355.86	348.866	87.358	1	0	0	0	0	0	0
113	2007	5	21.190	138.76	348.870	87.601	1	0	0	0	0	0	0
114	2007	6	134.176	8.49	348.876	87.832	1	0	0	0	0	0	0
115	2007	7	228.492	0.00	348.882	88.048	1	0	0	0	0	0	0
116	2007	8	242.989	0.00	348.890	88.252	1	0	0	0	0	0	0
117	2007	9	208.758	1.78	348.896	88.432	1	0	0	0	0	0	0
118	2007	10	110.564	18.23	348.901	88.587	1	0	0	0	0	0	0
119	2007	11	22.614	198.66	348.905	88.706	1	0	0	0	0	0	0
120	2007	12	0.000	615.95	348.903	88.792	1	0	0	0	0	0	0
121	2008	1	0.000	771.59	348.896	88.841	1	1	0	0	0	0	0
122	2008	2	0.000	953.25	348.884	88.843	1	1	0	0	0	0	0
123	2008	3	0.000	873.73	348.863	88.791	1	1	0	0	0	0	0
124	2008	4	0.213	488.63	348.833	88.694	1	1	0	0	0	0	0
125	2008	5	5.416	146.17	348.794	88.536	1	1	0	0	0	0	0
126	2008	6	87.394	42.84	348.745	88.314	1	1	0	0	0	0	0
127	2008	7	180.565	0.02	348.682	88.023	1	1	0	0	0	0	0
128	2008	8	226.790	0.00	348.607	87.664	1	1	0	0	0	0	0
129	2008	9	145.401	0.00	348.521	87.261	1	1	0	0	0	0	0
130	2008	10	44.785	32.97	348.427	86.819	1	1	0	0	0	0	0
131	2008	11	4.893	253.07	348.322	86.348	1	1	0	0	0	0	0
132	2008	12	0.000	734.63	348.211	85.863	1	1	0	0	0	0	0
133	2009	1	0.000	964.90	348.093	85.365	1	1	0	0	0	0	0
134	2009	2	0.000	1101.80	347.976	84.901	1	1	0	0	0	0	0
135	2009	3	0.000	706.91	347.854	84.462	1	1	0	0	0	0	0
136	2009	4	0.425	391.96	347.728	84.034	1	1	0	0	0	0	0
137	2009	5	13.221	150.02	347.600	83.654	1	1	0	0	0	0	0
138	2009	6	54.554	22.74	347.474	83.327	1	1	0	0	0	0	0
139	2009	7	162.385	0.02	347.349	83.076	1	1	0	0	0	0	0
140	2009	8	158.213	0.00	347.225	82.889	1	1	0	0	0	0	0
141	2009	9	109.746	0.00	347.107	82.770	1	1	0	0	0	0	0
142	2009	10	24.872	94.66	346.993	82.711	1	1	0	0	0	0	0
143	2009	11	0.000	223.45	346.885	82.699	1	1	0	0	0	0	0
144	2009	12	0.000	523.92	346.784	82.733	1	1	0	0	0	0	0
145	2010	1	0.000	921.64	346.689	82.797	1	1	0	0	0	0	0
146	2010	2	0.000	930.36	346.608	82.884	1	1	0	0	0	0	0
147	2010	3	0.000	727.48	346.534	82.990	1	1	0	0	0	0	0
148	2010	4	11.912	270.95	346.469	83.115	1	1	0	0	0	0	0
149	2010	5	12.567	100.58	346.415	83.237	1	1	0	0	0	0	0
150	2010	6	124.816	21.50	346.372	83.360	1	1	1	0	0	0	0

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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
151	2010	7	249.943	0.00	346.344	83.466	1	1	1	0	0	0	0
152	2010	8	329.958	0.00	346.329	83.563	1	1	1	0	0	0	0
153	2010	9	220.097	0.00	346.323	83.647	1	1	1	0	0	0	0
154	2010	10	51.641	39.58	346.323	83.708	1	1	1	0	0	0	0
155	2010	11	5.007	209.61	346.327	83.763	1	1	1	0	0	0	0
156	2010	12	0.000	639.56	346.332	83.799	1	1	1	0	0	0	0
157	2011	1	0.000	932.31	346.336	83.823	1	1	1	0	0	0	0
158	2011	2	0.000	1020.75	346.335	83.827	1	1	1	0	0	0	0
159	2011	3	0.000	731.00	346.325	83.827	1	1	1	0	0	0	0
160	2011	4	3.403	457.33	346.307	83.812	1	1	1	0	0	0	0
161	2011	5	17.083	163.12	346.273	83.782	1	1	1	0	0	0	0
162	2011	6	126.665	21.53	346.225	83.746	1	1	1	0	0	0	0
163	2011	7	237.098	0.00	346.157	83.694	1	1	1	0	0	0	0
164	2011	8	357.039	0.00	346.068	83.636	1	1	1	0	0	0	0
165	2011	9	180.761	3.73	345.965	83.565	1	1	1	0	0	0	0
166	2011	10	29.273	43.57	345.847	83.489	1	1	1	0	0	0	0
167	2011	11	4.843	193.88	345.717	83.414	1	1	1	0	0	0	0
168	2011	12	0.000	446.77	345.580	83.339	1	1	1	0	0	0	0
169	2012	1	0.000	663.11	345.434	83.260	1	1	1	0	0	0	0
170	2012	2	0.000	754.80	345.288	83.191	1	1	1	0	0	0	0
171	2012	3	10.996	536.49	345.143	83.129	1	1	1	0	0	0	0
172	2012	4	33.168	157.00	344.999	83.074	1	1	1	0	0	0	0
173	2012	5	22.663	130.23	344.858	83.030	1	1	1	0	0	0	0
174	2012	6	143.748	8.62	344.725	83.002	1	1	1	0	0	0	0
175	2012	7	363.796	0.77	344.601	82.990	1	1	1	0	0	0	0
176	2012	8	321.597	0.00	344.489	82.995	1	1	1	0	0	0	0
177	2012	9	165.674	1.49	344.389	83.015	1	1	1	0	0	0	0
178	2012	10	27.555	72.73	344.299	83.053	1	1	1	0	0	0	0
179	2012	11	6.414	288.97	344.221	83.101	1	1	1	0	0	0	0
180	2012	12	0.000	446.63	344.154	83.162	1	1	1	0	0	0	0
181	2013	1	0.000	721.18	344.098	83.236	1	1	1	0	0	0	0
182	2013	2	0.000	856.24	344.054	83.316	1	1	1	0	0	0	0
183	2013	3	0.000	774.08	344.019	83.402	1	1	1	0	0	0	0
184	2013	4	0.000	559.53	343.994	83.496	1	1	1	0	0	0	0
185	2013	5	23.988	160.91	343.978	83.593	1	1	1	0	0	0	0
186	2013	6	99.143	30.73	343.973	83.699	1	1	1	0	0	0	0
187	2013	7	218.707	0.44	343.979	83.806	1	1	1	0	0	0	0
188	2013	8	178.061	0.00	343.992	83.920	1	1	1	0	0	0	0
189	2013	9	200.871	0.05	344.011	84.029	1	1	1	0	0	0	0
190	2013	10	75.368	21.62	344.033	84.139	1	1	1	0	0	0	0
191	2013	11	6.791	261.61	344.053	84.249	1	1	1	0	0	0	0
192	2013	12	0.000	671.37	344.070	84.358	1	1	1	0	0	0	0
193	2014	1	0.000	990.40	344.082	84.469	1	1	1	0	0	0	0
194	2014	2	0.000	1159.72	344.084	84.568	1	1	1	0	0	0	0
195	2014	3	0.000	1006.09	344.075	84.665	1	1	1	0	0	0	0
196	2014	4	0.638	542.99	344.049	84.760	1	1	1	0	0	0	0
197	2014	5	18.588	147.59	344.007	84.853	1	1	1	0	0	0	0
198	2014	6	119.842	33.69	343.944	84.943	1	1	1	0	0	0	0
199	2014	7	205.060	0.00	343.858	85.025	1	1	1	0	0	0	0
200	2014	8	153.631	0.00	343.745	85.105	1	1	1	0	0	0	0



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201	2014	9	210.067	3.22	343.615	85.176	1	1	1	0	0	0	0
202	2014	10	31.760	46.68	343.469	85.249	1	1	1	0	0	0	0
203	2014	11	0.835	275.47	343.311	85.318	1	1	1	0	0	0	0
204	2014	12	0.000	673.82	343.145	85.388	1	1	1	0	0	0	0
205	2015	1	0.000	814.71	342.970	85.466	1	1	1	0	0	0	0
206	2015	2	0.000	983.39	342.805	85.541	1	1	1	0	0	0	0
207	2015	3	0.000	1023.65	342.643	85.623	1	1	1	0	0	0	0
208	2015	4	0.262	423.11	342.483	85.719	1	1	1	0	0	0	0
209	2015	5	24.332	128.83	342.332	85.822	1	1	1	0	0	0	0
210	2015	6	108.552	21.32	342.196	85.938	1	1	1	0	0	0	0
211	2015	7	151.226	0.20	342.080	86.071	1	1	1	0	0	0	0
212	2015	8	242.433	0.00	341.981	86.221	1	1	1	0	0	0	0
213	2015	9	183.526	0.21	341.902	86.373	1	1	1	0	0	0	0
214	2015	10	54.161	32.63	341.839	86.537	1	1	1	0	0	0	0
215	2015	11	1.276	162.24	341.790	86.715	1	1	1	0	0	0	0
216	2015	12	0.000	422.90	341.752	86.896	1	1	1	0	0	0	0
217	2016	1	0.000	660.96	341.724	87.091	1	1	1	0	0	0	0
218	2016	2	0.000	893.73	341.706	87.281	1	1	1	0	0	0	0
219	2016	3	0.000	644.78	341.692	87.479	1	1	1	0	0	0	0
220	2016	4	0.115	363.03	341.683	87.674	1	1	1	0	0	0	0
221	2016	5	4.631	161.37	341.677	87.879	1	1	1	0	0	0	0
222	2016	6	111.448	32.15	341.671	88.077	1	1	1	0	0	0	0
223	2016	7	197.762	0.00	341.664	88.277	1	1	1	0	0	0	0
224	2016	8	291.391	0.00	341.654	88.476	1	1	1	0	0	0	0
225	2016	9	224.499	0.00	341.642	88.657	1	1	1	0	0	0	0
226	2016	10	78.722	13.60	341.631	88.832	1	1	1	0	0	0	0
227	2016	11	7.560	149.62	341.617	88.994	1	1	1	0	0	0	0
228	2016	12	0.098	563.49	341.606	89.132	1	1	1	0	0	0	0
229	2017	1	0.000	877.82	341.597	89.257	1	1	1	1	0	0	0
230	2017	2	0.000	705.85	341.588	89.352	1	1	1	1	0	0	0
231	2017	3	0.000	532.60	341.583	89.418	1	1	1	1	0	0	0
232	2017	4	2.045	408.09	341.580	89.462	1	1	1	1	0	0	0
233	2017	5	17.508	130.05	341.583	89.472	1	1	1	1	0	0	0
234	2017	6	82.469	29.13	341.589	89.441	1	1	1	1	0	0	0
235	2017	7	185.261	0.00	341.600	89.379	1	1	1	1	0	0	0
236	2017	8	182.446	0.00	341.617	89.277	1	1	1	1	0	0	0
237	2017	9	92.925	0.00	341.640	89.146	1	1	1	1	0	0	0
238	2017	10	106.392	6.43	341.665	89.008	1	1	1	1	0	0	0
239	2017	11	6.087	274.81	341.695	88.861	1	1	1	1	0	0	0
240	2017	12	0.000	570.67	341.725	88.719	1	1	1	1	0	0	0
241	2018	1	0.000	1049.27	341.760	88.593	1	1	1	1	0	0	0
242	2018	2	0.000	920.50	341.791	88.495	1	1	1	1	0	0	0
243	2018	3	0.000	692.07	341.823	88.440	1	1	1	1	0	0	0
244	2018	4	0.000	590.18	341.856	88.425	1	1	1	1	0	0	0
245	2018	5	17.214	242.42	341.886	88.463	1	1	1	1	0	0	0
246	2018	6	126.109	5.19	341.914	88.579	1	1	1	1	0	0	0
247	2018	7	231.601	0.00	341.938	88.760	1	1	1	1	0	0	0
248	2018	8	227.592	0.00	341.960	89.031	1	1	1	1	0	0	0
249	2018	9	217.954	0.00	341.976	89.340	1	1	1	1	0	0	0
250	2018	10	87.002	52.20	341.988	89.677	1	1	1	1	0	0	0

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251	2018	11	9.392	368.84	341.994	90.016	1	1	1	1	0	0	0
252	2018	12	0.000	689.29	341.997	90.340	1	1	1	1	0	0	0
253	2019	1	0.000	702.49	341.993	90.622	1	1	1	1	0	0	0
254	2019	2	0.000	1023.34	341.985	90.828	1	1	1	1	0	0	0
255	2019	3	0.000	850.59	341.970	90.948	1	1	1	1	0	0	0
256	2019	4	0.000	476.70	341.949	90.963	1	1	1	1	1	0	0
257	2019	5	1.784	172.76	341.922	90.843	1	1	1	1	1	0	0
258	2019	6	39.762	35.52	341.886	90.566	1	1	1	1	1	0	0
259	2019	7	224.172	0.00	341.845	90.103	1	1	1	1	1	0	0
260	2019	8	246.671	0.00	341.796	89.459	1	1	1	1	1	0	0
261	2019	9	143.748	0.00	341.742	88.673	1	1	1	1	1	0	0
262	2019	10	104.853	23.97	341.684	87.776	1	1	1	1	1	0	0
263	2019	11	4.942	313.69	341.623	86.795	1	1	1	1	1	0	0
264	2019	12	0.000	608.06	341.560	85.765	1	1	1	1	1	0	0
265	2020	1	0.000	594.04	341.495	84.699	1	1	1	1	1	0	0
266	2020	2	0.000	726.69	341.435	83.687	1	1	1	1	1	0	0
267	2020	3	0.000	666.30	341.374	82.725	1	1	1	1	1	0	0
268	2020	4	0.622	368.61	341.318	81.819	1	1	1	1	1	1	0
269	2020	5	4.434	242.09	341.267	81.030	1	1	1	1	1	0	1
270	2020	6	125.258	39.65	341.219	80.388	1	1	1	1	1	0	0
271	2020	7	289.656	0.00	341.179	79.917	1	1	1	1	1	0	0
272	2020	8	281.524	0.00	341.146	79.630	1	1	1	1	1	0	0
273	2020	9	210.116	1.06	341.120	79.508	1	1	1	1	1	0	0
274	2020	10	27.948	43.69	341.098	79.529	1	1	1	1	1	0	0
275	2020	11	2.029	222.24	341.078	79.672	1	1	1	1	1	0	0
276	2020	12	1.080	470.16	341.061	79.912	1	1	1	1	1	0	0
277	2021	1	0.000	727.56	341.043	80.234	1	1	1	1	1	0	0
278	2021	2	0.000	903.95	341.027	80.592	1	1	1	1	1	0	0
279	2021	3	0.461	730.81	341.008	80.992	1	1	1	1	1	0	0
280	2021	4	3.580	423.80	340.983	81.413	1	1	1	1	1	0	0
281	2021	5	17.783	152.67	340.957	81.829	1	1	1	1	1	0	0
282	2021	6	93.219	27.93	340.922	82.213	1	1	1	1	1	0	0
283	2021	7	222.622	0.74	340.881	82.552	1	1	1	1	1	0	0
284	2021	8	245.155	0.00	340.831	82.836	1	1	1	1	1	0	0
285	2021	9	177.218	0.96	340.775	83.069	1	1	1	1	1	0	0
286	2021	10	54.320	47.16	340.712	83.256	1	1	1	1	1	0	0
287	2021	11	4.678	245.32	340.646	83.408	1	1	1	1	1	0	0
288	2021	12	0.052	562.05	340.574	83.534	1	1	1	1	1	0	0
289	2022	1	0.000	810.89	340.500	83.638	1	1	1	1	1	0	0
290	2022	2	0.000	903.95	340.426	83.721	1	1	1	1	1	0	0
291	2022	3	0.461	730.81	340.350	83.799	1	1	1	1	1	0	0
292	2022	4	3.580	423.80	340.270	83.880	1	1	1	1	1	0	0
293	2022	5	17.783	152.67	340.192	83.968	1	1	1	1	1	0	0
294	2022	6	93.219	27.93	340.114	84.074	1	1	1	1	1	0	0
295	2022	7	222.622	0.74	340.037	84.196	1	1	1	1	1	0	0
296	2022	8	245.155	0.00	339.962	84.348	1	1	1	1	1	0	0
297	2022	9	177.218	0.96	339.889	84.515	1	1	1	1	1	0	0
298	2022	10	54.320	47.16	339.820	84.696	1	1	1	1	1	0	0
299	2022	11	4.678	245.32	339.751	84.893	1	1	1	1	1	0	0
300	2022	12	0.052	562.05	339.682	85.094	1	1	1	1	1	0	0

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301	2023	1	0.000	810.894	339.614	85.310	1	1	1	1	1	0	0
302	2023	2	0.000	903.951	339.549	85.509	1	1	1	1	1	0	0
303	2023	3	0.461	730.812	339.482	85.706	1	1	1	1	1	0	0
304	2023	4	3.580	423.797	339.414	85.904	1	1	1	1	1	0	0
305	2023	5	17.783	152.675	339.345	86.088	1	1	1	1	1	0	0
306	2023	6	93.219	27.926	339.274	86.253	1	1	1	1	1	0	0
307	2023	7	222.622	0.742	339.202	86.407	1	1	1	1	1	0	0
308	2023	8	245.155	0.000	339.127	86.543	1	1	1	1	1	0	0
309	2023	9	177.218	0.963	339.053	86.649	1	1	1	1	1	0	0
310	2023	10	54.320	47.158	338.976	86.743	1	1	1	1	1	0	0
311	2023	11	4.678	245.317	338.899	86.820	1	1	1	1	1	0	0
312	2023	12	0.052	562.054	338.820	86.888	1	1	1	1	1	0	0
313	2024	1	0.000	810.894	338.740	86.943	1	1	1	1	1	0	0
314	2024	2	0.000	903.951	338.663	86.988	1	1	1	1	1	0	0
315	2024	3	0.461	730.812	338.584	87.030	1	1	1	1	1	0	0
316	2024	4	3.580	423.797	338.506	87.065	1	1	1	1	1	0	0
317	2024	5	17.783	152.675	338.426	87.095	1	1	1	1	1	0	0
318	2024	6	93.219	27.926	338.348	87.125	1	1	1	1	1	0	0
319	2024	7	222.622	0.742	338.269	87.158	1	1	1	1	1	0	0
320	2024	8	245.155	0.000	338.191	87.188	1	1	1	1	1	0	0
321	2024	9	177.218	0.963	338.113	87.221	1	1	1	1	1	0	0
322	2024	10	54.320	47.158	338.035	87.264	1	1	1	1	1	0	0
323	2024	11	4.678	245.317	337.960	87.296	1	1	1	1	1	0	0
324	2024	12	0.052	562.054	337.884	87.333	1	1	1	1	1	0	0
325	2025	1	0.000	810.894	337.807	87.376	1	1	1	1	1	0	0
326	2025	2	0.000	903.951	337.733	87.407	1	1	1	1	1	0	0
327	2025	3	0.461	730.812	337.661	87.447	1	1	1	1	1	0	0
328	2025	4	3.580	423.797	337.585	87.493	1	1	1	1	1	0	0
329	2025	5	17.783	152.675	337.511	87.530	1	1	1	1	1	0	0
330	2025	6	93.219	27.926	337.436	87.572	1	1	1	1	1	0	0
331	2025	7	222.622	0.742	337.361	87.610	1	1	1	1	1	0	0
332	2025	8	245.155	0.000	337.285	87.653	1	1	1	1	1	0	0
333	2025	9	177.218	0.963	337.210	87.694	1	1	1	1	1	0	0
334	2025	10	54.320	47.158	337.134	87.737	1	1	1	1	1	0	0
335	2025	11	4.678	245.317	337.058	87.774	1	1	1	1	1	0	0
336	2025	12	0.052	562.054	336.982	87.818	1	1	1	1	1	0	0
337	2026	1	0.000	810.894	336.904	87.855	1	1	1	1	1	0	0
338	2026	2	0.000	903.951	336.829	87.891	1	1	1	1	1	0	0
339	2026	3	0.461	730.812	336.755	87.935	1	1	1	1	1	0	0
340	2026	4	3.580	423.797	336.677	87.972	1	1	1	1	1	0	0
341	2026	5	17.783	152.675	336.596	88.015	1	1	1	1	1	0	0
342	2026	6	93.219	27.926	336.517	88.055	1	1	1	1	1	0	0
343	2026	7	222.622	0.742	336.435	88.095	1	1	1	1	1	0	0
344	2026	8	245.155	0.000	336.352	88.139	1	1	1	1	1	0	0
345	2026	9	177.218	0.963	336.270	88.178	1	1	1	1	1	0	0
346	2026	10	54.320	47.158	336.187	88.219	1	1	1	1	1	0	0
347	2026	11	4.678	245.317	336.103	88.259	1	1	1	1	1	0	0
348	2026	12	0.052	562.054	336.017	88.300	1	1	1	1	1	0	0
349	2027	1	0.000	810.894	335.931	88.340	1	1	1	1	1	0	0
350	2027	2	0.000	903.951	335.850	88.373	1	1	1	1	1	0	0

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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
351	2027	3	0.461	730.812	335.765	88.414	1	1	1	1	1	0	0
352	2027	4	3.580	423.797	335.680	88.446	1	1	1	1	1	0	0
353	2027	5	17.783	152.675	335.593	88.478	1	1	1	1	1	0	0
354	2027	6	93.219	27.926	335.506	88.513	1	1	1	1	1	0	0
355	2027	7	222.622	0.742	335.420	88.544	1	1	1	1	1	0	0
356	2027	8	245.155	0.000	335.332	88.571	1	1	1	1	1	0	0
357	2027	9	177.218	0.963	335.246	88.601	1	1	1	1	1	0	0
358	2027	10	54.320	47.158	335.160	88.627	1	1	1	1	1	0	0
359	2027	11	4.678	245.317	335.073	88.651	1	1	1	1	1	0	0
360	2027	12	0.052	562.054	334.987	88.678	1	1	1	1	1	0	0
361	2028	1	0.000	810.894	334.898	88.702	1	1	1	1	1	0	0
362	2028	2	0.000	903.951	334.814	88.725	1	1	1	1	1	0	0
363	2028	3	0.461	730.812	334.728	88.748	1	1	1	1	1	0	0
364	2028	4	3.580	423.797	334.641	88.770	1	1	1	1	1	0	0
365	2028	5	17.783	152.675	334.553	88.790	1	1	1	1	1	0	0
366	2028	6	93.219	27.926	334.466	88.813	1	1	1	1	1	0	0
367	2028	7	222.622	0.742	334.378	88.841	1	1	1	1	1	0	0
368	2028	8	245.155	0.000	334.289	88.865	1	1	1	1	1	0	0
369	2028	9	177.218	0.963	334.201	88.888	1	1	1	1	1	0	0
370	2028	10	54.320	47.158	334.111	88.917	1	1	1	1	1	0	0
371	2028	11	4.678	245.317	334.024	88.944	1	1	1	1	1	0	0
372	2028	12	0.052	562.054	333.935	88.970	1	1	1	1	1	0	0
373	2029	1	0.000	810.894	333.844	88.998	1	1	1	1	1	0	0
374	2029	2	0.000	903.951	333.758	89.025	1	1	1	1	1	0	0
375	2029	3	0.461	730.812	333.672	89.052	1	1	1	1	1	0	0
376	2029	4	3.580	423.797	333.583	89.079	1	1	1	1	1	0	0
377	2029	5	17.783	152.675	333.494	89.104	1	1	1	1	1	0	0
378	2029	6	93.219	27.926	333.405	89.131	1	1	1	1	1	0	0
379	2029	7	222.622	0.742	333.315	89.161	1	1	1	1	1	0	0
380	2029	8	245.155	0.000	333.225	89.190	1	1	1	1	1	0	0
381	2029	9	177.218	0.963	333.137	89.216	1	1	1	1	1	0	0
382	2029	10	54.320	47.158	333.048	89.243	1	1	1	1	1	0	0
383	2029	11	4.678	245.317	332.959	89.266	1	1	1	1	1	0	0
384	2029	12	0.052	562.054	332.870	89.290	1	1	1	1	1	0	0
385	2030	1	0.000	810.894	332.780	89.318	1	1	1	1	1	0	0
386	2030	2	0.000	903.951	332.696	89.340	1	1	1	1	1	0	0
387	2030	3	0.461	730.812	332.610	89.365	1	1	1	1	1	0	0
388	2030	4	3.580	423.797	332.522	89.385	1	1	1	1	1	0	0
389	2030	5	17.783	152.675	332.435	89.410	1	1	1	1	1	0	0
390	2030	6	93.219	27.926	332.348	89.429	1	1	1	1	1	0	0
391	2030	7	222.622	0.742	332.260	89.450	1	1	1	1	1	0	0
392	2030	8	245.155	0.000	332.173	89.473	1	1	1	1	1	0	0
393	2030	9	177.218	0.963	332.087	89.491	1	1	1	1	1	0	0
394	2030	10	54.320	47.158	332.002	89.512	1	1	1	1	1	0	0
395	2030	11	4.678	245.317	331.914	89.526	1	1	1	1	1	0	0
396	2030	12	0.052	562.054	331.828	89.546	1	1	1	1	1	0	0
397	2031	1	0.000	810.894	331.740	89.562	1	1	1	1	1	0	0
398	2031	2	0.000	903.951	331.656	89.577	1	1	1	1	1	0	0
399	2031	3	0.461	730.812	331.570	89.586	1	1	1	1	1	0	0
400	2031	4	3.580	423.797	331.482	89.605	1	1	1	1	1	0	0

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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
401	2031	5	17.783	152.675	331.393	89.618	1	1	1	1	1	0	0
402	2031	6	93.219	27.926	331.303	89.629	1	1	1	1	1	0	0
403	2031	7	222.622	0.742	331.212	89.641	1	1	1	1	1	0	0
404	2031	8	245.155	0.000	331.119	89.654	1	1	1	1	1	0	0
405	2031	9	177.218	0.963	331.027	89.662	1	1	1	1	1	0	0
406	2031	10	54.320	47.158	330.932	89.669	1	1	1	1	1	0	0
407	2031	11	4.678	245.317	330.836	89.681	1	1	1	1	1	0	0
408	2031	12	0.052	562.054	330.741	89.690	1	1	1	1	1	0	0
409	2032	1	0.000	810.894	330.643	89.699	1	1	1	1	1	0	0
410	2032	2	0.000	903.951	330.548	89.704	1	1	1	1	1	0	0
411	2032	3	0.461	730.812	330.453	89.714	1	1	1	1	1	0	0
412	2032	4	3.580	423.797	330.355	89.722	1	1	1	1	1	0	0
413	2032	5	17.783	152.675	330.255	89.730	1	1	1	1	1	0	0
414	2032	6	93.219	27.926	330.158	89.736	1	1	1	1	1	0	0
415	2032	7	222.622	0.742	330.059	89.747	1	1	1	1	1	0	0
416	2032	8	245.155	0.000	329.958	89.758	1	1	1	1	1	0	0
417	2032	9	177.218	0.963	329.859	89.765	1	1	1	1	1	0	0
418	2032	10	54.320	47.158	329.759	89.776	1	1	1	1	1	0	0
419	2032	11	4.678	245.317	329.660	89.785	1	1	1	1	1	0	0
420	2032	12	0.052	562.054	329.559	89.797	1	1	1	1	1	0	0
421	2033	1	0.000	810.894	329.457	89.805	1	1	1	1	1	0	0
422	2033	2	0.000	903.951	329.359	89.811	1	1	1	1	1	0	0
423	2033	3	0.461	730.812	329.260	89.823	1	1	1	1	1	0	0
424	2033	4	3.580	423.797	329.157	89.831	1	1	1	1	1	0	0
425	2033	5	17.783	152.675	329.054	89.842	1	1	1	1	1	0	0
426	2033	6	93.219	27.926	328.950	89.850	1	1	1	1	1	0	0
427	2033	7	222.622	0.742	328.845	89.859	1	1	1	1	1	0	0
428	2033	8	245.155	0.000	328.737	89.867	1	1	1	1	1	0	0
429	2033	9	177.218	0.963	328.630	89.874	1	1	1	1	1	0	0
430	2033	10	54.320	47.158	328.524	89.877	1	1	1	1	1	0	0
431	2033	11	4.678	245.317	328.415	89.889	1	1	1	1	1	0	0
432	2033	12	0.052	562.054	328.307	89.891	1	1	1	1	1	0	0
433	2034	1	0.000	810.894	328.197	89.900	1	1	1	1	1	0	0
434	2034	2	0.000	903.951	328.089	89.905	1	1	1	1	1	0	0
435	2034	3	0.461	730.812	327.983	89.913	1	1	1	1	1	0	0
436	2034	4	3.580	423.797	327.872	89.917	1	1	1	1	1	0	0
437	2034	5	17.783	152.675	327.762	89.923	1	1	1	1	1	0	0
438	2034	6	93.219	27.926	327.650	89.927	1	1	1	1	1	0	0
439	2034	7	222.622	0.742	327.538	89.930	1	1	1	1	1	0	0
440	2034	8	245.155	0.000	327.424	89.937	1	1	1	1	1	0	0
441	2034	9	177.218	0.963	327.311	89.941	1	1	1	1	1	0	0
442	2034	10	54.320	47.158	327.198	89.944	1	1	1	1	1	0	0
443	2034	11	4.678	245.317	327.085	89.950	1	1	1	1	1	0	0
444	2034	12	0.052	562.054	326.970	89.955	1	1	1	1	1	0	0
445	2035	1	0.000	810.894	326.855	89.959	1	1	1	1	1	0	0
446	2035	2	0.000	903.951	326.744	89.966	1	1	1	1	1	0	0
447	2035	3	0.461	730.812	326.632	89.970	1	1	1	1	1	0	0
448	2035	4	3.580	423.797	326.517	89.973	1	1	1	1	1	0	0
449	2035	5	17.783	152.675	326.400	89.978	1	1	1	1	1	0	0
450	2035	6	93.219	27.926	326.285	89.985	1	1	1	1	1	0	0

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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
451	2035	7	222.622	0.742	326.169	89.987	1	1	1	1	1	0	0
452	2035	8	245.155	0.000	326.050	89.995	1	1	1	1	1	0	0
453	2035	9	177.218	0.963	325.931	89.997	1	1	1	1	1	0	0
454	2035	10	54.320	47.158	325.813	90.002	1	1	1	1	1	0	0
455	2035	11	4.678	245.317	325.694	90.008	1	1	1	1	1	0	0
456	2035	12	0.052	562.054	325.576	90.013	1	1	1	1	1	0	0
457	2036	1	0.000	810.894	325.454	90.016	1	1	1	1	1	0	0
458	2036	2	0.000	903.951	325.338	90.023	1	1	1	1	1	0	0
459	2036	3	0.461	730.812	325.219	90.025	1	1	1	1	1	0	0
460	2036	4	3.580	423.797	325.100	90.032	1	1	1	1	1	0	0
461	2036	5	17.783	152.675	324.980	90.035	1	1	1	1	1	0	0
462	2036	6	93.219	27.926	324.859	90.041	1	1	1	1	1	0	0
463	2036	7	222.622	0.742	324.739	90.047	1	1	1	1	1	0	0
464	2036	8	245.155	0.000	324.617	90.050	1	1	1	1	1	0	0
465	2036	9	177.218	0.963	324.495	90.055	1	1	1	1	1	0	0
466	2036	10	54.320	47.158	324.374	90.059	1	1	1	1	1	0	0
467	2036	11	4.678	245.317	324.253	90.063	1	1	1	1	1	0	0
468	2036	12	0.052	562.054	324.131	90.067	1	1	1	1	1	0	0
469	2037	1	0.000	810.894	324.008	90.076	1	1	1	1	1	0	0
470	2037	2	0.000	903.951	323.889	90.078	1	1	1	1	1	0	0
471	2037	3	0.461	730.812	323.769	90.078	1	1	1	1	1	0	0
472	2037	4	3.580	423.797	323.646	90.088	1	1	1	1	1	0	0
473	2037	5	17.783	152.675	323.523	90.090	1	1	1	1	1	0	0
474	2037	6	93.219	27.926	323.398	90.090	1	1	1	1	1	0	0
475	2037	7	222.622	0.742	323.272	90.093	1	1	1	1	1	0	0
476	2037	8	245.155	0.000	323.145	90.102	1	1	1	1	1	0	0
477	2037	9	177.218	0.963	323.019	90.104	1	1	1	1	1	0	0
478	2037	10	54.320	47.158	322.893	90.107	1	1	1	1	1	0	0
479	2037	11	4.678	245.317	322.763	90.110	1	1	1	1	1	0	0
480	2037	12	0.052	562.054	322.636	90.111	1	1	1	1	1	0	0
481	2038	1	0.000	810.894	322.506	90.118	1	1	1	1	1	0	0
482	2038	2	0.000	903.951	322.379	90.122	1	1	1	1	1	0	0
483	2038	3	0.461	730.812	322.254	90.120	1	1	1	1	1	0	0
484	2038	4	3.580	423.797	322.124	90.127	1	1	1	1	1	0	0
485	2038	5	17.783	152.675	321.994	90.128	1	1	1	1	1	0	0
486	2038	6	93.219	27.926	321.863	90.132	1	1	1	1	1	0	0
487	2038	7	222.622	0.742	321.730	90.134	1	1	1	1	1	0	0
488	2038	8	245.155	0.000	321.598	90.136	1	1	1	1	1	0	0
489	2038	9	177.218	0.963	321.463	90.137	1	1	1	1	1	0	0
490	2038	10	54.320	47.158	321.331	90.137	1	1	1	1	1	0	0
491	2038	11	4.678	245.317	321.198	90.136	1	1	1	1	1	0	0
492	2038	12	0.052	562.054	321.063	90.137	1	1	1	1	1	0	0
493	2039	1	0.000	810.894	320.928	90.144	1	1	1	1	1	0	0
494	2039	2	0.000	903.951	320.799	90.146	1	1	1	1	1	0	0
495	2039	3	0.461	730.812	320.667	90.148	1	1	1	1	1	0	0
496	2039	4	3.580	423.797	320.533	90.147	1	1	1	1	1	0	0
497	2039	5	17.783	152.675	320.397	90.150	1	1	1	1	1	0	0
498	2039	6	93.219	27.926	320.261	90.152	1	1	1	1	1	0	0
499	2039	7	222.622	0.742	320.123	90.150	1	1	1	1	1	0	0
500	2039	8	245.155	0.000	319.984	90.156	1	1	1	1	1	0	0

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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
501	2039	9	177.218	0.963	319.847	90.157	1	1	1	1	1	0	0
502	2039	10	54.320	47.158	319.709	90.158	1	1	1	1	1	0	0
503	2039	11	4.678	245.317	319.571	90.161	1	1	1	1	1	0	0
504	2039	12	0.052	562.054	319.432	90.164	1	1	1	1	1	0	0
505	2040	1	0.000	810.894	319.290	90.169	1	1	1	1	1	0	0
506	2040	2	0.000	903.951	319.152	90.170	1	1	1	1	1	0	0
507	2040	3	0.461	730.812	319.016	90.173	1	1	1	1	1	0	0
508	2040	4	3.580	423.797	318.877	90.176	1	1	1	1	1	0	0
509	2040	5	17.783	152.675	318.736	90.181	1	1	1	1	1	0	0
510	2040	6	93.219	27.926	318.596	90.181	1	1	1	1	1	0	0
511	2040	7	222.622	0.742	318.456	90.189	1	1	1	1	1	0	0
512	2040	8	245.155	0.000	318.312	90.194	1	1	1	1	1	0	0
513	2040	9	177.218	0.963	318.171	90.197	1	1	1	1	1	0	0
514	2040	10	54.320	47.158	318.030	90.201	1	1	1	1	1	0	0
515	2040	11	4.678	245.317	317.888	90.207	1	1	1	1	1	0	0
516	2040	12	0.052	562.054	317.746	90.211	1	1	1	1	1	0	0
517	2041	1	0.000	810.894	317.602	90.222	1	1	1	1	1	0	0
518	2041	2	0.000	903.951	317.464	90.224	1	1	1	1	1	0	0
519	2041	3	0.461	730.812	317.326	90.232	1	1	1	1	1	0	0
520	2041	4	3.580	423.797	317.184	90.242	1	1	1	1	1	0	0
521	2041	5	17.783	152.675	317.039	90.245	1	1	1	1	1	0	0
522	2041	6	93.219	27.926	316.895	90.252	1	1	1	1	1	0	0
523	2041	7	222.622	0.742	316.751	90.260	1	1	1	1	1	0	0
524	2041	8	245.155	0.000	316.604	90.270	1	1	1	1	1	0	0
525	2041	9	177.218	0.963	316.459	90.279	1	1	1	1	1	0	0
526	2041	10	54.320	47.158	316.314	90.291	1	1	1	1	1	0	0
527	2041	11	4.678	245.317	316.168	90.298	1	1	1	1	1	0	0
528	2041	12	0.052	562.054	316.022	90.304	1	1	1	1	1	0	0
529	2042	1	0.000	810.894	315.872	90.316	1	1	1	1	1	0	0
530	2042	2	0.000	903.951	315.731	90.323	1	1	1	1	1	0	0
531	2042	3	0.461	730.812	315.588	90.335	1	1	1	1	1	0	0
532	2042	4	3.580	423.797	315.439	90.344	1	1	1	1	1	0	0
533	2042	5	17.783	152.675	315.291	90.351	1	1	1	1	1	0	0
534	2042	6	93.219	27.926	315.140	90.360	1	1	1	1	1	0	0
535	2042	7	222.622	0.742	314.992	90.371	1	1	1	1	1	0	0
536	2042	8	245.155	0.000	314.839	90.378	1	1	1	1	1	0	0
537	2042	9	177.218	0.963	314.688	90.391	1	1	1	1	1	0	0
538	2042	10	54.320	47.158	314.538	90.393	1	1	1	1	1	0	0
539	2042	11	4.678	245.317	314.386	90.405	1	1	1	1	1	0	0
540	2042	12	0.052	562.054	314.234	90.413	1	1	1	1	1	0	0
541	2043	1	0.000	810.894	314.080	90.421	1	1	1	1	1	0	0
542	2043	2	0.000	903.951	313.933	90.431	1	1	1	1	1	0	0
543	2043	3	0.461	730.812	313.786	90.439	1	1	1	1	1	0	0
544	2043	4	3.580	423.797	313.633	90.448	1	1	1	1	1	0	0
545	2043	5	17.783	152.675	313.483	90.457	1	1	1	1	1	0	0
546	2043	6	93.219	27.926	313.330	90.467	1	1	1	1	1	0	0
547	2043	7	222.622	0.742	313.179	90.475	1	1	1	1	1	0	0
548	2043	8	245.155	0.000	313.025	90.486	1	1	1	1	1	0	0
549	2043	9	177.218	0.963	312.874	90.493	1	1	1	1	1	0	0
550	2043	10	54.320	47.158	312.723	90.503	1	1	1	1	1	0	0

The SAS System  
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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
551	2043	11	4.678	245.317	312.571	90.513	1	1	1	1	1	0	0
552	2043	12	0.052	562.054	312.419	90.523	1	1	1	1	1	0	0
553	2044	1	0.000	810.894	312.266	90.536	1	1	1	1	1	0	0
554	2044	2	0.000	903.951	312.117	90.545	1	1	1	1	1	0	0
555	2044	3	0.461	730.812	311.967	90.555	1	1	1	1	1	0	0
556	2044	4	3.580	423.797	311.815	90.564	1	1	1	1	1	0	0
557	2044	5	17.783	152.675	311.663	90.578	1	1	1	1	1	0	0
558	2044	6	93.219	27.926	311.510	90.583	1	1	1	1	1	0	0
559	2044	7	222.622	0.742	311.358	90.595	1	1	1	1	1	0	0
560	2044	8	245.155	0.000	311.201	90.608	1	1	1	1	1	0	0
561	2044	9	177.218	0.963	311.047	90.618	1	1	1	1	1	0	0
562	2044	10	54.320	47.158	310.892	90.626	1	1	1	1	1	0	0
563	2044	11	4.678	245.317	310.738	90.641	1	1	1	1	1	0	0
564	2044	12	0.052	562.054	310.583	90.649	1	1	1	1	1	0	0
565	2045	1	0.000	810.894	310.425	90.662	1	1	1	1	1	0	0
566	2045	2	0.000	903.951	310.276	90.667	1	1	1	1	1	0	0
567	2045	3	0.461	730.812	310.126	90.679	1	1	1	1	1	0	0
568	2045	4	3.580	423.797	309.970	90.684	1	1	1	1	1	0	0
569	2045	5	17.783	152.675	309.817	90.698	1	1	1	1	1	0	0
570	2045	6	93.219	27.926	309.663	90.708	1	1	1	1	1	0	0
571	2045	7	222.622	0.742	309.509	90.718	1	1	1	1	1	0	0
572	2045	8	245.155	0.000	309.352	90.727	1	1	1	1	1	0	0
573	2045	9	177.218	0.963	309.198	90.739	1	1	1	1	1	0	0
574	2045	10	54.320	47.158	309.045	90.749	1	1	1	1	1	0	0
575	2045	11	4.678	245.317	308.892	90.756	1	1	1	1	1	0	0
576	2045	12	0.052	562.054	308.737	90.766	1	1	1	1	1	0	0
577	2046	1	0.000	810.894	308.581	90.776	1	1	1	1	1	0	0
578	2046	2	0.000	903.951	308.431	90.790	1	1	1	1	1	0	0
579	2046	3	0.461	730.812	308.281	90.794	1	1	1	1	1	0	0
580	2046	4	3.580	423.797	308.125	90.804	1	1	1	1	1	0	0
581	2046	5	17.783	152.675	307.968	90.814	1	1	1	1	1	0	0
582	2046	6	93.219	27.926	307.810	90.818	1	1	1	1	1	0	0
583	2046	7	222.622	0.742	307.651	90.831	1	1	1	1	1	0	0
584	2046	8	245.155	0.000	307.487	90.841	1	1	1	1	1	0	0
585	2046	9	177.218	0.963	307.325	90.851	1	1	1	1	1	0	0
586	2046	10	54.320	47.158	307.163	90.856	1	1	1	1	1	0	0
587	2046	11	4.678	245.317	306.999	90.863	1	1	1	1	1	0	0
588	2046	12	0.052	562.054	306.834	90.874	1	1	1	1	1	0	0
589	2047	1	0.000	810.894	306.668	90.883	1	1	1	1	1	0	0
590	2047	2	0.000	903.951	306.508	90.891	1	1	1	1	1	0	0
591	2047	3	0.461	730.812	306.349	90.898	1	1	1	1	1	0	0
592	2047	4	3.580	423.797	306.185	90.906	1	1	1	1	1	0	0
593	2047	5	17.783	152.675	306.022	90.914	1	1	1	1	1	0	0
594	2047	6	93.219	27.926	305.857	90.924	1	1	1	1	1	0	0
595	2047	7	222.622	0.742	305.695	90.933	1	1	1	1	1	0	0
596	2047	8	245.155	0.000	305.530	90.939	1	1	1	1	1	0	0
597	2047	9	177.218	0.963	305.369	90.948	1	1	1	1	1	0	0
598	2047	10	54.320	47.158	305.208	90.956	1	1	1	1	1	0	0
599	2047	11	4.678	245.317	305.048	90.964	1	1	1	1	1	0	0
600	2047	12	0.052	562.054	304.888	90.976	1	1	1	1	1	0	0



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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
601	2048	1	0.000	810.894	304.726	90.9840	1	1	1	1	1	0	0
602	2048	2	0.000	903.951	304.568	90.9910	1	1	1	1	1	0	0
603	2048	3	0.461	730.812	304.412	91.0030	1	1	1	1	1	0	0
604	2048	4	3.580	423.797	304.253	91.0110	1	1	1	1	1	0	0
605	2048	5	17.783	152.675	304.095	91.0150	1	1	1	1	1	0	0
606	2048	6	93.219	27.926	303.935	91.0280	1	1	1	1	1	0	0
607	2048	7	222.622	0.742	303.777	91.0300	1	1	1	1	1	0	0
608	2048	8	245.155	0.000	303.614	91.0470	1	1	1	1	1	0	0
609	2048	9	177.218	0.963	303.455	91.0570	1	1	1	1	1	0	0
610	2048	10	54.320	47.158	303.295	91.0630	1	1	1	1	1	0	0
611	2048	11	4.678	245.317	303.135	91.0750	1	1	1	1	1	0	0
612	2048	12	0.052	562.054	302.976	91.0770	1	1	1	1	1	0	0
613	2049	1	0.000	810.894	302.815	91.0890	1	1	1	1	1	0	0
614	2049	2	0.000	903.951	302.660	91.0990	1	1	1	1	1	0	0
615	2049	3	0.461	730.812	302.506	91.1060	1	1	1	1	1	0	0
616	2049	4	3.580	423.797	302.346	91.1150	1	1	1	1	1	0	0
617	2049	5	17.783	152.675	302.188	91.1230	1	1	1	1	1	0	0
618	2049	6	93.219	27.926	302.027	91.1290	1	1	1	1	1	0	0
619	2049	7	222.622	0.742	301.869	91.1400	1	1	1	1	1	0	0
620	2049	8	245.155	0.000	301.708	91.1490	1	1	1	1	1	0	0
621	2049	9	177.218	0.963	301.549	91.1570	1	1	1	1	1	0	0
622	2049	10	54.320	47.158	301.390	91.1620	1	1	1	1	1	0	0
623	2049	11	4.678	245.317	301.232	91.1700	1	1	1	1	1	0	0
624	2049	12	0.052	562.054	301.074	91.1800	1	1	1	1	1	0	0
625	2050	1	0.000	810.894	300.914	91.1860	1	1	1	1	1	0	0
626	2050	2	0.000	903.951	300.761	91.1930	1	1	1	1	1	0	0
627	2050	3	0.461	730.812	300.608	91.1960	1	1	1	1	1	0	0
628	2050	4	3.580	423.797	300.451	91.2060	1	1	1	1	1	0	0
629	2050	5	17.783	152.675	300.295	91.2070	1	1	1	1	1	0	0
630	2050	6	93.219	27.926	300.140	91.2130	1	1	1	1	1	0	0
631	2050	7	222.622	0.742	299.984	91.2210	1	1	1	1	1	0	0
632	2050	8	245.155	0.000	299.827	91.2270	1	1	1	1	1	0	0
633	2050	9	177.218	0.963	299.671	91.2300	1	1	1	1	1	0	0
634	2050	10	54.320	47.158	299.518	91.2360	1	1	1	1	1	0	0
635	2050	11	4.678	245.317	299.364	91.2400	1	1	1	1	1	0	0
636	2050	12	0.052	562.054	299.211	91.2400	1	1	1	1	1	0	0
637	2051	1	0.000	810.894	299.026	91.2851	1	1	1	1	1	0	0
638	2051	2	0.000	903.951	298.875	91.2890	1	1	1	1	1	0	0
639	2051	3	0.461	730.812	298.723	91.2880	1	1	1	1	1	0	0
640	2051	4	3.580	423.797	298.569	91.2990	1	1	1	1	1	0	0
641	2051	5	17.783	152.675	298.415	91.2930	1	1	1	1	1	0	0
642	2051	6	93.219	27.926	298.266	91.2989	1	1	1	1	1	0	0
643	2051	7	222.622	0.742	298.112	91.3039	1	1	1	1	1	0	0
644	2051	8	245.155	0.000	297.959	91.3069	1	1	1	1	1	0	0
645	2051	9	177.218	0.963	297.806	91.3049	1	1	1	1	1	0	0
646	2051	10	54.320	47.158	297.659	91.3119	1	1	1	1	1	0	0
647	2051	11	4.678	245.317	297.509	91.3118	1	1	1	1	1	0	0
648	2051	12	0.052	562.054	297.361	91.3019	1	1	1	1	1	0	0
649	2052	1	0.000	810.894	297.152	91.3862	1	1	1	1	1	0	0
650	2052	2	0.000	903.951	297.003	91.3870	1	1	1	1	1	0	0

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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
651	2052	3	0.461	730.812	296.852	91.3819	1	1	1	1	1	0	0
652	2052	4	3.580	423.797	296.701	91.3939	1	1	1	1	1	0	0
653	2052	5	17.783	152.675	296.549	91.3809	1	1	1	1	1	0	0
654	2052	6	93.219	27.926	296.406	91.3867	1	1	1	1	1	0	0
655	2052	7	222.622	0.742	296.254	91.3887	1	1	1	1	1	0	0
656	2052	8	245.155	0.000	296.104	91.3886	1	1	1	1	1	0	0
657	2052	9	177.218	0.963	295.954	91.3817	1	1	1	1	1	0	0
658	2052	10	54.320	47.158	295.813	91.3896	1	1	1	1	1	0	0
659	2052	11	4.678	245.317	295.667	91.3855	1	1	1	1	1	0	0
660	2052	12	0.052	562.054	295.524	91.3656	1	1	1	1	1	0	0
661	2053	1	0.000	810.894	295.291	91.4895	1	1	1	1	1	0	0
662	2053	2	0.000	903.951	295.144	91.4869	1	1	1	1	1	0	0
663	2053	3	0.461	730.812	294.994	91.4779	1	1	1	1	1	0	0
664	2053	4	3.580	423.797	294.846	91.4908	1	1	1	1	1	0	0
665	2053	5	17.783	152.675	294.695	91.4707	1	1	1	1	1	0	0
666	2053	6	93.219	27.926	294.558	91.4763	1	1	1	1	1	0	0
667	2053	7	222.622	0.742	294.408	91.4755	1	1	1	1	1	0	0
668	2053	8	245.155	0.000	294.263	91.4721	1	1	1	1	1	0	0
669	2053	9	177.218	0.963	294.116	91.4604	1	1	1	1	1	0	0
670	2053	10	54.320	47.158	293.980	91.4693	1	1	1	1	1	0	0
671	2053	11	4.678	245.317	293.838	91.4610	1	1	1	1	1	0	0
672	2053	12	0.052	562.054	293.700	91.4312	1	1	1	1	1	0	0
673	2054	1	0.000	810.894	293.443	91.5948	1	1	1	1	1	0	0
674	2054	2	0.000	903.951	293.298	91.5889	1	1	1	1	1	0	0
675	2054	3	0.461	730.812	293.149	91.5758	1	1	1	1	1	0	0
676	2054	4	3.580	423.797	293.003	91.5898	1	1	1	1	1	0	0
677	2054	5	17.783	152.675	292.855	91.5626	1	1	1	1	1	0	0
678	2054	6	93.219	27.926	292.723	91.5679	1	1	1	1	1	0	0
679	2054	7	222.622	0.742	292.575	91.5641	1	1	1	1	1	0	0
680	2054	8	245.155	0.000	292.434	91.5575	1	1	1	1	1	0	0
681	2054	9	177.218	0.963	292.290	91.5411	1	1	1	1	1	0	0
682	2054	10	54.320	47.158	292.160	91.5508	1	1	1	1	1	0	0
683	2054	11	4.678	245.317	292.022	91.5383	1	1	1	1	1	0	0
684	2054	12	0.052	562.054	291.888	91.4987	1	1	1	1	1	0	0
685	2055	1	0.000	810.894	291.608	91.7022	1	1	1	1	1	0	0
686	2055	2	0.000	903.951	291.465	91.6928	1	1	1	1	1	0	0
687	2055	3	0.461	730.812	291.316	91.6757	1	1	1	1	1	0	0
688	2055	4	3.580	423.797	291.174	91.6907	1	1	1	1	1	0	0
689	2055	5	17.783	152.675	291.028	91.6564	1	1	1	1	1	0	0
690	2055	6	93.219	27.926	290.902	91.6614	1	1	1	1	1	0	0
691	2055	7	222.622	0.742	290.756	91.6547	1	1	1	1	1	0	0
692	2055	8	245.155	0.000	290.618	91.6448	1	1	1	1	1	0	0
693	2055	9	177.218	0.963	290.476	91.6236	1	1	1	1	1	0	0
694	2055	10	54.320	47.158	290.353	91.6342	1	1	1	1	1	0	0
695	2055	11	4.678	245.317	290.218	91.6175	1	1	1	1	1	0	0
696	2055	12	0.052	562.054	290.089	91.5680	1	1	1	1	1	0	0
697	2056	1	0.000	810.894	289.786	91.8117	1	1	1	1	1	0	0
698	2056	2	0.000	903.951	289.644	91.7988	1	1	1	1	1	0	0
699	2056	3	0.461	730.812	289.497	91.7776	1	1	1	1	1	0	0
700	2056	4	3.580	423.797	289.357	91.7936	1	1	1	1	1	0	0

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City of Dowagiac  
Exogenous Variables

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Obs	YEAR	MONTH	bcdd65	bhdd55	N_imm	lcom_imm	d04on	d08on	djun10on	jan17on	apr19on	apr20	may20
701	2056	5	17.783	152.675	289.213	91.7521	1	1	1	1	1	0	0
702	2056	6	93.219	27.926	289.093	91.7568	1	1	1	1	1	0	0
703	2056	7	222.622	0.742	288.948	91.7472	1	1	1	1	1	0	0
704	2056	8	245.155	0.000	288.814	91.7340	1	1	1	1	1	0	0
705	2056	9	177.218	0.963	288.676	91.7081	1	1	1	1	1	0	0
706	2056	10	54.320	47.158	288.558	91.7196	1	1	1	1	1	0	0
707	2056	11	4.678	245.317	288.427	91.6985	1	1	1	1	1	0	0
708	2056	12	0.052	562.054	288.303	91.6392	1	1	1	1	1	0	0
709	2057	1	0.000	810.894	287.976	91.9233	1	1	1	1	1	0	0
710	2057	2	0.000	903.951	287.837	91.9067	1	1	1	1	1	0	0
711	2057	3	0.461	730.812	287.691	91.8814	1	1	1	1	1	0	0
712	2057	4	3.580	423.797	287.554	91.8985	1	1	1	1	1	0	0
713	2057	5	17.783	152.675	287.411	91.8499	1	1	1	1	1	0	0
714	2057	6	93.219	27.926	287.296	91.8541	1	1	1	1	1	0	0
715	2057	7	222.622	0.742	287.154	91.8416	1	1	1	1	1	0	0
716	2057	8	245.155	0.000	287.024	91.8250	1	1	1	1	1	0	0
717	2057	9	177.218	0.963	286.888	91.7945	1	1	1	1	1	0	0
718	2057	10	54.320	47.158	286.775	91.8068	1	1	1	1	1	0	0
719	2057	11	4.678	245.317	286.648	91.7813	1	1	1	1	1	0	0
720	2057	12	0.052	562.054	286.529	91.7123	1	1	1	1	1	0	0

The SYSLIN Procedure  
Ordinary Least Squares Estimation

Model KWH  
Dependent Variable KWH  
Label Energy

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	10	1.252E14	1.252E13	100.90	<.0001
Error	244	3.027E13	1.24E11		
Corrected Total	254	1.554E14			

Root MSE 352198.952 R-Square 0.80527  
Dependent Mean 6048501.20 Adj R-Sq 0.79729  
Coeff Var 5.82291

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variable Label
Intercept	1	-1155660	1844243	-0.63	0.5315	Intercept
nlcomindx	1	7096735	1815479	3.91	0.0001	Service Area Population and Commercial Employment Index
bhdd55	1	590.7799	86.43156	6.84	<.0001	Service Area Heating Degree Days
bcdd65	1	3580.176	313.4071	11.42	<.0001	Service Area Cooling Degree Days
d04on	1	698761.3	76468.32	9.14	<.0001	Binary Variable - 2004 On
d08on	1	-1319434	85457.32	-15.44	<.0001	Binary Variable - 2008 On
djun10on	1	150888.0	78003.53	1.93	0.0542	Binary Variable - June 2010 On
jan17on	1	-368434	91307.62	-4.04	<.0001	Binary Variable - January 2017 On
apr19on	1	-384261	118027.8	-3.26	0.0013	Binary Variable - April 2019 On
apr20	1	-1031843	363205.4	-2.84	0.0049	Binary Variable - April 2020
may20	1	-918692	364546.7	-2.52	0.0124	Binary Variable - May 2020

The SYSLIN Procedure  
Ordinary Least Squares Estimation

Durbin-Watson	1.61372
Number of Observations	255
First-Order Autocorrelation	0.191145

time		Sum
1999.666667	*****	-268751
1999.750000	***	137353
1999.833333	**	-91974
1999.916667	****	189109
2000.000000	*****	360081
2000.083333	****	-217069
2000.166667	*****	302060
2000.250000	*****	-394765
2000.333333		24953
2000.416667	**	115908
2000.500000	*	-41665
2000.583333	*****	678811
2000.666667	*****	-451692
2000.750000	*	72235
2000.833333	*	-41857
2000.916667	****	-177266
2001.000000	**	-78279
2001.083333	*****	-502827
2001.166667	*	46648
2001.250000	*****	-530633
2001.333333		-8049
2001.416667	*****	372735
2001.500000	*****	313605
2001.583333	*****	421609
2001.666667	*****	-565304
2001.750000	****	223864
2001.833333	**	-99901
2001.916667	*	38639
2002.000000	*****	354741
2002.083333	***	-134584
2002.166667	*****	228637
2002.250000		8035
2002.333333	****	177063
2002.416667	*****	-450130
2002.500000	*****	-478121
2002.583333	*****	-524443
2002.666667	*****	-995074
2002.750000	*****	-605428
2002.833333	*****	-291808
2002.916667	***	-174978
2003.166667	*	31101
2003.250000	*	-71191
2003.333333		-380
2003.416667	*****	330488
2003.500000	*****	515619
2003.583333	*****	1023481
2003.666667	*	50091
2003.750000	*****	604101
2003.833333	*	53527

The SAS System  
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 Model Residuals

Indiana Michigan Power Company  
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2003.9166667		*****	521676
2004.0000000		*****	234139
2004.0833333	*****		-467539
2004.1666667		****	179817
2004.2500000	*****		-323707
2004.3333333	****		-184032
2004.4166667		***	132781
2004.5000000		***	136166
2004.5833333		***	169878
2004.6666667		*	47637
2004.7500000		*	38064
2004.8333333	*****		-305960
2004.9166667	**		-113336
2005.0000000		**	80080
2005.0833333	*****		-730905
2005.1666667		*	59252
2005.2500000	*****		-443849
2005.3333333	*****		-245736
2005.4166667		*****	817199
2005.5000000		*	-48647
2005.5833333		*****	311951
2005.6666667	*****		-244421
2005.7500000	**		-88590
2005.8333333	*****		-225170
2005.9166667	*****		-753647
2006.0000000		*****	241362
2006.0833333	***		-161767
2006.1666667		*****	593924
2006.2500000	*****		-296730
2006.3333333		*****	323211
2006.4166667		*****	577912
2006.5000000		*****	458563
2006.5833333		*****	640455
2006.6666667	****		-210668
2006.7500000		*****	580136
2006.8333333		*****	263703
2006.9166667		****	209001
2007.0000000		*****	458415
2007.0833333		**	121741
2007.1666667		*****	304639
2007.2500000	***		-137665
2007.3333333		*****	241999
2007.4166667		*****	336880
2007.5000000	*****		-461883
2007.5833333		*	45421
2007.6666667	*****		-883929
2007.7500000	*****		-425679
2007.8333333	*****		-421136
2007.9166667	*****		-429332
2008.0000000		*****	1156783
2008.0833333		*****	703903
2008.1666667		*****	300169

The SAS System  
City of Dowagiac  
Model Residuals

Indiana Michigan Power Company  
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2008.2500000			
2008.3333333		**	87126
2008.4166667		*****	394011
2008.5000000		*****	326079
2008.5833333		***	174915
2008.6666667		*****	255596
2008.7500000		*****	623658
2008.8333333		*****	314477
2008.9166667		*****	-413142
2009.0000000		***	159078
2009.0833333	*****		-744575
2009.1666667	*****		-490846
2009.2500000	*****		-699085
2009.3333333	*****		-675038
2009.4166667	*****		-300182
2009.5000000	*****		-623402
2009.5833333		***	-144844
2009.6666667		*****	-308623
2009.7500000		*	73823
2009.8333333		*****	-245653
2009.9166667		*****	235966
2010.0000000		*****	270281
2010.0833333		*****	-236554
2010.1666667			-3594
2010.2500000		*****	-352634
2010.3333333		***	174755
2010.4166667		****	218452
2010.5000000		*****	580734
2010.5833333		*****	296755
2010.6666667	*****		-575388
2010.7500000		***	-125957
2010.8333333		*	-74847
2010.9166667		*****	269996
2011.0000000		*****	447751
2011.0833333		*****	-341253
2011.1666667		****	175297
2011.2500000	*****		-539251
2011.3333333	*****		-354023
2011.4166667		**	-102475
2011.5000000		****	190346
2011.5833333		*****	-367293
2011.6666667	*****		-508181
2011.7500000		*	50090
2011.8333333		****	-218694
2011.9166667		*	47210
2012.0000000		*****	239136
2012.0833333		***	-153041
2012.1666667		*	39024
2012.2500000		****	-215807
2012.3333333		***	165220
2012.4166667		*****	417564
2012.5000000		*****	465786



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2012.5833333	**	-90623
2012.6666667	*****	-407482
2012.7500000	*****	268384
2012.8333333		16324
2012.9166667	*	28262
2013.0000000	****	213224
2013.0833333	*****	-283912
2013.1666667	**	-109791
2013.2500000	*****	-279578
2013.3333333	*	66563
2013.4166667	***	157466
2013.5000000	*****	286558
2013.5833333	*****	472715
2013.6666667	*****	-331223
2013.7500000	**	78467
2013.8333333	**	90191
2013.9166667	***	152956
2014.0000000	*****	505552
2014.0833333	****	-200634
2014.1666667		2287
2014.2500000	*****	-526259
2014.3333333	*	-60864
2014.4166667		12483
2014.5000000	*****	-241124
2014.5833333	*****	301447
2014.6666667	*****	-505175
2014.7500000	*****	260075
2014.8333333	***	135460
2014.9166667	*****	244765
2015.0000000	*****	407155
2015.0833333		-4654
2015.1666667	*	49116
2015.2500000	*****	-304849
2015.3333333	****	-176526
2015.4166667	*	31303
2015.5000000	****	194117
2015.5833333	*****	-272808
2015.6666667	*****	-269041
2015.7500000		-1322
2015.8333333	****	-195366
2015.9166667	**	-86343
2016.0000000	*****	366742
2016.0833333	***	-134463
2016.1666667	**	-87737
2016.2500000	*****	-234556
2016.3333333	*	31877
2016.4166667	*****	339751
2016.5000000	*****	365854
2016.5833333	*****	356699
2016.6666667	*****	-438530
2016.7500000	*****	-234860
2016.8333333	****	-204388

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 City of Dowagiac  
 Model Residuals

Indiana Michigan Power Company  
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2016.9166667		****	219161
2017.0000000		*****	467510
2017.0833333	****		-211765
2017.1666667		*****	349556
2017.2500000	*****		-439790
2017.3333333		***	127170
2017.4166667		*****	449879
2017.5000000		***	159542
2017.5833333		***	145026
2017.6666667		*	-72286
2017.7500000	*****		-242142
2017.8333333			-4826
2017.9166667		*****	322410
2018.0000000		*****	372483
2018.0833333	*****		-242488
2018.1666667		****	177074
2018.2500000	*****		-226447
2018.3333333			17208
2018.4166667		***	146576
2018.5000000		*	45364
2018.5833333		*****	266158
2018.6666667	*****		-526809
2018.7500000	*****		-253830
2018.8333333	**		-109323
2018.9166667	*****		-243026
2019.0000000		***	143491
2019.0833333	*****		-400064
2019.1666667	****		-216651
2019.2500000	*****		-525000
2019.3333333	*****		-308688
2019.4166667		****	181058
2019.5000000		*****	436132
2019.5833333	****		-209354
2019.6666667	*****		-464787
2019.7500000	***		-147851
2019.8333333		*****	252579
2019.9166667		*****	312703
2020.0000000		*****	614649
2020.0833333		***	146986
2020.1666667	***		-164173
2020.2500000			0
2020.3333333			-0
2020.4166667	**		-89134
2020.5000000		*****	365442
2020.5833333	*		-41608
2020.6666667	*****		-668484
2020.7500000			-3788
2020.8333333	***		-172281
2020.9166667		*****	265327
2021.0000000		****	220272

The SAS System  
City of Dowagiac  
Model Residuals

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
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-600000                      0                      600000

Residual Values

The SAS System  
City of Dowagiac  
Actual and Forecast

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
PUBLIC REDACTED

Year	Energy	Growth Rate
1998	CONFID.	N/A
1999	CONFID.	N/A
2000	CONFID.	N/A
2001	CONFID.	N/A
2002	CONFID.	N/A
2003	CONFID.	N/A
2004	CONFID.	N/A
2005	CONFID.	N/A
2006	CONFID.	N/A
2007	CONFID.	N/A
2008	CONFID.	N/A
2009	CONFID.	N/A
2010	CONFID.	N/A
2011	CONFID.	N/A
2012	CONFID.	N/A
2013	CONFID.	N/A
2014	CONFID.	N/A
2015	CONFID.	N/A
2016	CONFID.	N/A
2017	CONFID.	N/A
2018	CONFID.	N/A
2019	CONFID.	N/A
2020	CONFID.	N/A
2021	CONFID.	N/A
2022	CONFID.	N/A
2023	CONFID.	N/A
2024	CONFID.	N/A
2025	CONFID.	N/A
2026	CONFID.	N/A
2027	CONFID.	N/A
2028	CONFID.	N/A
2029	CONFID.	N/A
2030	CONFID.	N/A
2031	CONFID.	N/A
2032	CONFID.	N/A
2033	CONFID.	N/A
2034	CONFID.	N/A
2035	CONFID.	N/A
2036	CONFID.	N/A
2037	CONFID.	N/A
2038	CONFID.	N/A
2039	CONFID.	N/A
2040	CONFID.	N/A
2041	CONFID.	N/A
2042	CONFID.	N/A
2043	CONFID.	N/A
2044	CONFID.	N/A
2045	CONFID.	N/A
2046	CONFID.	N/A

The SAS System  
City of Dowagiac  
Actual and Forecast

Indiana Michigan Power Company  
2021 IRP, Volume 3, Exhibit E  
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Year	Energy	Growth Rate
2047	CONFID.	N/A
2048	CONFID.	N/A
2049	CONFID.	N/A
2050	CONFID.	N/A
2051	CONFID.	N/A
2052	CONFID.	N/A
2053	CONFID.	N/A
2054	CONFID.	N/A
2055	CONFID.	N/A
2056	CONFID.	N/A
2057	CONFID.	N/A

2030 Termination Scenario 1 - only allowing I&M to exit the contract  
 OVEC Costs Removed as of Jan 1, 2030  
 All Costs are I&M Total Company  
 All Dollars are Nominal (\$,000)

Indiana Michigan Power Company  
 2021 IRP, Volume 3, Exhibit F  
 PUBLIC REDACTED

	A1	A2	A	B	C = B - A	D	E	F = C + D + E
	Preferred Plan			No OVEC Plan	No OVEC Plan Less Preferred Plan	On-Going ICPA Obligation Costs		Total Impact of Termination Scenario
	Utility Cost	OVEC Demand Charge	Total	Utility Cost	Cost/(Benefit)	Debt Repayment	Other Fixed Cost Responsibility	Cost/(Benefit)
2022	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2028	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2029	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2030	\$ 644,723	\$ 26,333	\$ 671,056	\$ 665,814	\$ (5,242)	\$ 4,277		
2031	\$ 639,672	\$ 21,314	\$ 660,986	\$ 663,307	\$ 2,321	\$ 4,106		
2032	\$ 616,113	\$ 21,689	\$ 637,802	\$ 639,184	\$ 1,382	\$ 3,934		
2033	\$ 610,540	\$ 22,014	\$ 632,554	\$ 634,414	\$ 1,860	\$ 3,762		
2034	\$ 569,685	\$ 22,312	\$ 591,996	\$ 593,219	\$ 1,223	\$ 3,590		
2035	\$ 751,582	\$ 22,607	\$ 774,188	\$ 775,483	\$ 1,294	\$ 3,419		
2036	\$ 783,507	\$ 22,712	\$ 806,219	\$ 807,177	\$ 958	\$ 3,247		
2037	\$ 858,069	\$ 17,836	\$ 875,906	\$ 881,060	\$ 5,155	\$ 3,075		
2038	\$ 1,041,190	\$ 16,023	\$ 1,057,213	\$ 1,065,121	\$ 7,908	\$ 2,904		
2039	\$ 1,032,392	\$ 14,473	\$ 1,046,865	\$ 1,057,391	\$ 10,526	\$ 2,732		
2040	\$ 1,019,322	\$ 16,269	\$ 1,035,591	\$ 1,040,083	\$ 4,492	\$ 2,560		

Net Present Value **\$102,013**  
 Net Benefit to Customers

2030 Termination Scenario 2 - allowing all owners to exit the contract  
 OVEC Costs Removed as of Jan 1, 2030  
 All Costs are I&M Total Company  
 All Dollars are Nominal (\$,000)

Indiana Michigan Power Company  
 2021 IRP, Volume 3, Exhibit F  
 PUBLIC REDACTED

	A1	A2	A	B	C = B - A	D	E	F = C + D + E
	Preferred Plan			No OVEC Plan	No OVEC Plan Less Preferred Plan	On-Going ICPA Obligation Costs		Total Impact of Termination Scenario
	Utility Cost	OVEC Demand Charge	Total	Utility Cost	Cost/(Benefit)	Debt Repayment	Other Fixed Cost Responsibility	Cost/(Benefit)
2022	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2025	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2028	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2029	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2030	\$ 644,723	\$ 26,333	\$ 671,056	\$ 665,814	\$ (5,242)	\$ 4,277		
2031	\$ 639,672	\$ 21,314	\$ 660,986	\$ 663,307	\$ 2,321	\$ 4,106		
2032	\$ 616,113	\$ 21,689	\$ 637,802	\$ 639,184	\$ 1,382	\$ 3,934		
2033	\$ 610,540	\$ 22,014	\$ 632,554	\$ 634,414	\$ 1,860	\$ 3,762		
2034	\$ 569,685	\$ 22,312	\$ 591,996	\$ 593,219	\$ 1,223	\$ 3,590		
2035	\$ 751,582	\$ 22,607	\$ 774,188	\$ 775,483	\$ 1,294	\$ 3,419		
2036	\$ 783,507	\$ 22,712	\$ 806,219	\$ 807,177	\$ 958	\$ 3,247		
2037	\$ 858,069	\$ 17,836	\$ 875,906	\$ 881,060	\$ 5,155	\$ 3,075		
2038	\$ 1,041,190	\$ 16,023	\$ 1,057,213	\$ 1,065,121	\$ 7,908	\$ 2,904		
2039	\$ 1,032,392	\$ 14,473	\$ 1,046,865	\$ 1,057,391	\$ 10,526	\$ 2,732		
2040	\$ 1,019,322	\$ 16,269	\$ 1,035,591	\$ 1,040,083	\$ 4,492	\$ 2,560		

Net Present Value **\$27,891**  
 Net Cost to Customers