

September 12, 2012

Beth Krogel Roads Assistant General Counsel - Legal Counsel, RTO/FERC Issues Indiana Utility Regulatory Commission 101 W. Washington Street, Suite 1500 E Indianapolis, IN 46204

RE: Integrated Resource Planning (IRP) rule, RM #11-07

Dear Beth,

Ecos Energy LLC respectfully provides these comments on the draft IRP Proposed Rule. Specifically, our comments relate to proposed rule 170 IAC 4-7-4 with respect to avoided cost information.

The proper calculation of a utility's long-term (15 to 20 year) avoided costs is particularly relevant to a utility's obligations under the Public Utility Regulatory Policies Act ("PURPA") to purchase electricity and capacity from qualifying facilities. The ability to have a known set of long-term avoided costs on which a utility would enter into a power purchase agreement is critical to the development of qualifying facility projects. Encouraging the use of renewable energy at no additional long-term costs to ratepayers should be part of a long-term integrated resource plan.

A good example of how this can be implemented can be seen in Iowa. The Iowa Utilities Board requires long-term estimates of avoided costs to be filed annually. Attached is the public version of a recent filing by Interstate Power & Light ("Alliant"). Attachment A to the Alliant filing lists long-term avoided costs, which also corresponds to the rate at which Alliant would enter into a PPA with a qualifying facility under PURPA.

Other states, such as Vermont, have recently begun the determination of what additional avoided costs might be realized by the interconnection of renewable energy facilities in areas of congestion in the distribution system.

The determination of objective long-term avoided costs will enable renewable energy projects to be built without any projected net long-term cost to ratepayers. At the same time, an increase in renewable energy project creates jobs and economic activity in Indiana now, provides a hedge against future increases in fuel costs, uses less water resources and among other savings, can result in the avoidance of costs associated with distribution system upgrades.

Ecos suggests that the Commission consider augmenting the current rule with a requirement that 20-year avoided cost rates be filed annually with the Commission, that those rates be prepared based upon a uniform methodology across all Indiana utilities, that rates include realistic assumptions that reflect future environmental and other costs that would be avoided by the interconnection of renewable energy facilities. Specifically with respect to the last factor, it does not serve the long-term interests of ratepayers for a utility to assume a low cost facility as the benchmark avoided cost facility (which would result in little or no qualifying facilities being built) and then embark on a generation project, such as a "clean coal" plant whose costs continue to spiral upward.

Respectfully submitted,

/s/ Thomas Melone

Thomas Melone President

### FILED WITH Executive Secretary

June 29, 2012
IOWA UTILITIES BOARD

IAC-2012-1503



Alliant Energy Corporate Services Legal Department 319-786-4505 – Phone 319-786-4533 – Fax

Paula N. Johnson Senior Attorney - Regulatory

June 29, 2012

Ms. Joan Conrad, Executive Secretary Iowa Utilities Board 1375 East Court Avenue, Room 69 Des Moines, IA 50319-0069

RE: Interstate Power and Light Company

Docket No. IAC-2012-1503

Report of Electric Utility System Cost Data

**Dear Secretary Conrad:** 

Enclosed please find Interstate Power and Light Company's (IPL) Report of Electric Utility System Cost Data as required under PURPA, Section 210, 18 CFR 292.302 and as referenced in Iowa Administrative Code rule 199—15.3(476), as filed today on EFS.

IPL deems above-mentioned report and associated contracts to contain confidential materials. All materials IPL deems confidential are appropriately marked as such. Specifically, the confidential material contains planned capacity purchase information, which would be detrimental to IPL in the competitive bidding process if released. It is the opinion of the undersigned attorney that the confidentially submitted information contains trade secrets and reports to a governmental agency that meet the requirements of lowa Code § 22.7(3) and (6) and therefore, in accordance with 199 IAC 1.9(5) and (6), should be exempted from public inspection and should be maintained as confidential information by the Board in order to preserve the confidential nature of the material.

Very truly yours,

/s/ Paula N. Johnson

Paula N. Johnson Senior Attorney - Regulatory

PNJ/kjf Enclosures Interstate Power and Light Co. An Alliant Energy Company

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**INITIAL FILING** 

FILED WITH
Executive Secretary
June 29, 2012
IOWA UTILITIES BOARD
IAC-2012-1503

#### STATE OF IOWA

#### BEFORE THE IOWA UTILITIES BOARD

IN RE:

INTERSTATE POWER AND LIGHT COMPANY

**IOWA ADMIN CODE 199—15.3(476)** 

#### REPORT OF ELECTRIC UTILITY SYSTEM COST DATA

**COMES NOW**, Interstate Power and Light Company (IPL), and in compliance with 199 IAC 15.3(476), requiring the filing of a report on electric utility system cost data in accordance with PURPA, Section 240 (18 C.F.R. 292), submits its report.

- The report contains the following information in Attachment A and Confidential Attachment B:
  - (1) <u>18 C.F.R.§292.302(b)(1):</u> Estimated avoided energy costs, in blocks of not more than 100 megawatts, stated on a cents per kilowatt-hour basis, during daily or seasonal peak and off-peak periods, by year for the current calendar year and each of the next five years (Attachment A).
  - (2) <u>18 C.F.R.§292.302(b)(2)-(3):</u> Planned capacity additions and firm purchases, with associated capacity costs, in dollars/kW and energy costs, in cents/kWh, and planned retirements, during the succeeding ten years (Confidential Attachment B).
- 2. Attachment A provides avoided energy costs in tables corresponding to blocks of one, 10 and 20 megawatts (MW), respectively. On May 14, 2008, the Federal Energy Regulatory Commission (FERC) issued its Order Granting Application to Terminate Purchase Obligation determining that, among other things, Interstate Power and Light Company is granted a service

territory-wide termination of new power purchase obligations or contracts to purchase electricity from qualifying cogeneration and small power production facilities with net capacity in excess of 20 MW. As a result, Attachment A does not include information for avoided resources greater than 20 MW.

3. The avoided energy cost scenarios of one, 10 and 20 MW in Attachment A are provided for two types of avoided resources that are differentiated by the level of capacity utilization. The first type is a resource with a 100% capacity factor and the second type is a resource with the capacity utilization of a wind energy facility.

WHEREFORE, for the reasons stated above, Interstate Power and Light Company requests the Iowa Utilities Board accept its Report of Electric Utility System Cost Data.

Dated this 29<sup>th</sup> day of June, 2012.

Respectfully submitted,
INTERSTATE POWER AND LIGHT
COMPANY

By /s/ Paula N. Johnson

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#### INTERSTATE POWER AND LIGHT COMPANY 199 IAC 15.3

#### **ESTIMATED AVOIDED ENERGY COSTS**

Estimated avoided energy cost, in blocks of not more than 100 megawatts, stated on a cents per kilowatt-hour basis, during daily or seasonal peak and off-peak periods, by year for the current calender year and each of the next five years (18 CFR 292.302(b)(1))

Table 1. Estimated Avoided Energy Costs, 1 MW Block (1), (2), (3)

Year	Season	Period	Avoided Cost (cents/kWh)	Year	· Season	Period	Avoided Cost (cents/kWh)
2012	Summer	Peak	4.5	2013	S Summer	Peak	4.9
		Off-Peak	3.6			Off-Peak	3.8
	Winter	Peak	3.7		Winter	Peak	3.9
		Off-Peak	3.1			Off-Peak	3.3
2014	Summer	Peak	6.1	2015	Summer	Peak	6.8
_0	•	Off-Peak	4.7			Off-Peak	5.1
	Winter	Peak	5.0		Winter	Peak	5.4
	***************************************	Off-Peak	4.0		•••••	Off-Peak	4.4
2016	Summer	Peak	7.8	2017	' Summer	Peak	8.3
_0.5	•	Off-Peak	5.9			Off-Peak	6.3
	Winter	Peak	6.3		Winter	Peak	6.6
IOTES:	***************************************	Off-Peak	5.1		· · · · · · · ·	Off-Peak	5.3

#### NOTES:

- (1) Source: IPL's in progress 2012 Update to the 2010 Integrated Resource Plan
- (2) Seasonal and diurnal periods are identical to the IPL electric retail tariff:

On-peak period is 8:00 A.M. to 9:00 P.M. Daylight Savings Time

(7:00 A.M. to 8:00 P.M. Central Standard Time)

Off-peak period is all other hours.

Summer season June 16 to September 15, winter season all other days

(3) The avoided energy costs reflect a block size of <u>one</u> megawatt and are not applicable to a significantly different block size or a significant quantity of the same block size.

Table 2. Estimated Avoided Energy Costs, 10 MW Block

2012 Unda	ate to IPI 's :	2010 Flect	tric Resourc			nateu Avoided Ene	,						-
_	Case Scen		ino recoduro	o i idii									ļ
			)% capacity	factor									ļ
10 av	0.404 .0004	100 11, 100	, to capacity	idoto.				Discount	t Rate =	0.0803			ļ
								2.0000		0.0000			ļ
	<==== C	apacity Co	ost ====>	Added	Avoided	<=====	==== Ener	gy Cost ===	=====>	Avoided			
	Base	Alternative	)	Rated	Capacity	Base	Alternative	9	Added	Energy		Present	Levelized
	Case	Case	Difference	Capacity	Cost	Case	Case	Difference	Energy	Cost		Worth	Annual
Year	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	MW	\$/kW	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>GWh</u>	\$/MWh		\$/MWh	\$/MWh
2012	257.906	257.906		0.0	0.00	413.228	413.228		0.000				ļ
2013	298.749	298.749	0.000	10.0	0.00	447.764	444.491	3.273	87.360	37.47	1	34.68	59.05
2014	193.100	193.100	0.000	10.0	0.00	607.804	602.851	4.953	87.360	56.70	2	48.58	59.05
2015	237.711	234.854	2.857	10.0	285.70	632.501	627.361	5.140	87.360	58.84	3	46.67	59.05
2016	304.998	274.732	30.266	10.0	3026.60	621.836	617.415	4.421	87.360	50.61	4	37.16	59.05
2017	317.821	287.671	30.150	10.0	3015.00	657.197	652.403	4.794	87.360	54.88	5	37.30	59.05
2018	330.660	345.830	-15.170	10.0	-1517.00	693.798	688.613	5.185	87.360	59.35	6	37.34	59.05
2019	363.028	363.564	-0.536	10.0	-53.60	724.193	718.867	5.326	87.360	60.97	7	35.50	59.05
2020	394.667	395.203	-0.536	10.0	-53.60	751.119	745.661	5.458	87.360	62.48	8	33.68	59.05
2021	398.481	399.017	-0.536	10.0	-53.60	782.888	777.167	5.721	87.360	65.49	9	32.68	59.05
2022	409.827	410.362	-0.535	10.0	-53.50	804.507	798.571	5.936	87.360	67.95	10	31.39	59.05
2023	438.768	413.061	25.707	10.0	2570.70	853.580	847.348	6.232	87.360	71.34	11	30.50	59.05
2024	456.360	430.653	25.707	10.0	2570.70	884.514	877.786	6.728	87.360	77.01	12	30.48	59.05
2025	529.098	503.391	25.707	10.0	2570.70	915.950	910.295	5.655	87.360	64.73	13	23.72	59.05
2026	564.862	539.155	25.707	10.0	2570.70	921.980	916.023	5.957	87.360	68.19	14	23.13	
2027	622.031	596.324	25.707	10.0	2570.70	910.492	904.441	6.051	87.360	69.27	15	21.74	59.05
									NPV =	504.54		504.54	504.54
								l evelized	Annual =	59.05			

Table 3. Estimated Avoided Energy Costs, 20 MW Block

2012 Upda	ate to IPL's 2	2010 Elect	ric Resourc										•
-	Case Scen												
20 MW av	oided resou	rce w/ 100	% capacity	factor									
								Discoun	t Rate =	0.0803			
			st ====>	Added	Avoided	<=====		gy Cost ===		Avoided			
	Base	Alternative		Rated	Capacity	Base	Alternative		Added	Energy		Present	Levelized
	Case	Case	Difference	Capacity	Cost	Case	Case	Difference	Energy	Cost		Worth	Annual
<u>Year</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>MW</u>	<u>\$/kW</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>GWh</u>	<u>\$/MWh</u>		<u>\$/MWh</u>	<u>\$/MWh</u>
2012	257.906	257.906		0.0	0.00	413.228			0.000				
2013	298.749	298.749	0.000	20.0	0.00	447.764	441.239	6.525	174.720	37.35	1	34.57	
2014	193.100	193.100		20.0	0.00	607.804			174.720	56.30	2	48.24	
2015	237.711	237.711	0.000	20.0	0.00	632.50	622.289	10.212	174.720	58.45	3	46.36	
2016	304.998	304.998	0.000	20.0	0.00	621.836	613.028	8.808	174.720	50.41	4	37.01	
2017	317.821	317.821	0.000	20.0	0.00	657.197	647.657	9.540	174.720	54.60	5	37.11	
2018	330.660	330.660	0.000	20.0	0.00	693.798	683.477	10.321	174.720	59.07	6	37.16	
2019	363.028	363.028	0.000	20.0	0.00	724.193	713.547	10.646	174.720	60.93	7	35.48	58.78
2020	394.667	394.667	0.000	20.0	0.00	751.119	740.272	10.847	174.720	62.08	8	33.47	58.78
2021	398.481	398.481	0.000	20.0	0.00	782.888	771.504	11.384	174.720	65.16	9	32.51	
2022	409.827	409.827	0.000	20.0	0.00	804.507	792.701	11.806	174.720	67.57	10	31.21	58.78
2023	438.768	438.768	0.000	20.0	0.00	853.580		12.478	174.720	71.42	11	30.54	58.78
2024	456.360	456.360	0.000	20.0	0.00	884.514	871.134	13.380	174.720	76.58	12	30.31	
2025	529.098	529.098	0.000	20.0	0.00	915.950	904.667	11.283	174.720	64.58	13	23.66	58.78
2026	564.862	564.862	0.000	20.0	0.00	921.980		11.832	174.720	67.72	14	22.97	
2027	622.031	622.031	0.000	20.0	0.00	910.492	898.479	12.013	174.720	68.76	15	21.58	58.78
									NPV =	502.19		502.19	502.19
								l evelized	Annual =	58.78			

Table 4. Estimated Avoided Energy Costs, 1 MW Wind

2012 Upda	ate to IPL's 2	2010 Elect	ric Resourc	e Plan									
-	Case Scen												
1 MW avo	ided wind re	source w/	38% capac	ity factor									
								Discount	Rate =	0.0803			
	<==== Ca			Added	Avoided			gy Cost ====		Avoided			
		Alternative		Rated	Capacity	Base	Alternative		Added	Energy		Present	Levelized
	Case	Case	Difference		Cost	Case	Case	Difference	Energy	Cost		Worth	Annual
<u>Year</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>MW</u>	<u>\$/kW</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>GWh</u>	<u>\$/MWh</u>		<u>\$/MWh</u>	<u>\$/MWh</u>
2012	257.906	257.906		0.0	0.00	413.228			0.000				
2013	298.749	298.749	0.000	1.0	0.00	447.764	447.647	0.117	3.294	35.52	1	32.88	
2014	193.100	193.100		1.0	0.00	607.804			3.294	48.57	2	41.62	
2015	237.711	237.711	0.000	1.0	0.00	632.501	632.336	0.165	3.294	50.09	3	39.73	45.61
2016	304.998	304.998	0.000	1.0	0.00	621.836	621.684	0.152	3.294	46.14	4	33.88	45.61
2017	317.821	317.821	0.000	1.0	0.00	657.197	657.033	0.164	3.294	49.79	5	33.84	45.61
2018	330.660	330.660	0.000	1.0	0.00	693.798	693.621	0.177	3.294	53.73	6	33.81	45.61
2019	363.028	363.028	0.000	1.0	0.00	724.193	724.012	0.181	3.294	54.95	7	32.00	45.61
2020	394.667	394.667	0.000	1.0	0.00	751.119	750.939	0.180	3.294	54.64	8	29.46	45.61
2021	398.481	398.481	0.000	1.0	0.00	782.888	782.699	0.189	3.294	57.38	9	28.63	45.61
2022	409.827	409.827	0.000	1.0	0.00	804.507	804.315	0.192	3.294	58.29	10	26.92	45.61
2023	438.768	438.768	0.000	1.0	0.00	853.580	853.381	0.199	3.294	60.41	11	25.83	45.61
2024	456.360	456.360	0.000	1.0	0.00	884.514	884.303	0.211	3.294	64.06	12	25.35	45.61
2025	529.098	529.098	0.000	1.0	0.00	915.950	915.756	0.194	3.294	58.89	13	21.58	45.61
2026	564.862	564.862	0.000	1.0	0.00	921.980	921.777	0.203	3.294	61.63	14	20.90	45.61
2027	622.031	622.031	0.000	1.0	0.00	910.492	910.292	0.200	3.294	60.72	15	19.06	45.61
									NPV =	445.49		445.49	389.65
								Levelized	Annual =	45.61			

Table 5. Estimated Avoided Energy Costs, 10 MW Wind

						nateu Avoideu Ene	. 37	,					
-	ate to IPL's		ric Resourc	e Plan									
	Case Scen												
10 MW av	oided wind	resource w	ı/ 38% capa	city factor									
								Discount	tRate =	0.0803			
	<==== C	apacity Co	st ====>	Added	Avoided	<=====	==== Ener	gy Cost ===:	=====>	Avoided			
	Base	Alternative	<b>;</b>	Rated	Capacity	Base	Alternative	9	Added	Energy		Present	Levelized
	Case	Case	Difference	Capacity	Cost	Case	Case	Difference	Energy	Cost		Worth	Annual
<u>Year</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	MW	<u>\$/kW</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>GWh</u>	\$/MWh		<u>\$/MWh</u>	<u>\$/MWh</u>
2012	257.906	257.906	0.000	0.0	0.00	413.228	413.228	0.000	0.000				
2013	298.749	298.749	0.000	10.0	0.00	447.764	446.599	1.165	32.943	35.36	1	32.74	52.06
2014	193.100	193.100	0.000	10.0	0.00	607.804	606.214	1.590	32.943	48.27	2	41.36	52.06
2015	237.711	237.711	0.000	10.0	0.00	632.501	630.854	1.647	32.943	50.00	3	39.65	52.06
2016	304.998	304.998	0.000	10.0	0.00	621.836	620.315	1.521	32.943	46.17	4	33.90	52.06
2017	317.821	317.821	0.000	10.0	0.00	657.197	655.558	1.639	32.943	49.75	5	33.81	52.06
2018	330.660	330.660	0.000	10.0	0.00	693.798	692.033	1.765	32.943	53.58	6	33.71	52.06
2019	363.028	363.028	0.000	10.0	0.00	724.193	722.386	1.807	32.943	54.85	7	31.94	52.06
2020	394.667	394.667	0.000	10.0	0.00	751.119	749.317	1.802	32.943	54.70	8	29.49	52.06
2021	398.481	398.481	0.000	10.0	0.00	782.888	780.994	1.894	32.943	57.49	9	28.69	52.06
2022	409.827	409.827	0.000	10.0	0.00	804.507	802.587	1.920	32.943	58.28	10	26.92	52.06
2023	438.768	438.768	0.000	10.0	0.00	853.580	851.594	1.986	32.943	60.29	11	25.78	52.06
2024	456.360	456.360	0.000	10.0	0.00	884.514	882.403	2.111	32.943	64.08	12	25.36	52.06
2025	529.098	529.098	0.000	10.0	0.00	915.950	914.011	1.939	32.943	58.86	13	21.56	52.06
2026	564.862	564.862	0.000	10.0	0.00	921.980	919.962	2.018	32.943	61.26	14	20.77	52.06
2027	622.031	622.031	0.000	10.0	0.00	910.492	908.488	2.004	32.943	60.83	15	19.10	52.06
									NPV =	444.78		444.78	444.78
								Levelized	Annual =	52.06			

Table 6. Estimated Avoided Energy Costs, 20 MW Wind

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	ate to IPL's		ric Resourc	e Plan									
	Case Scen												
20 MW av	oided wind	resource w	ı/ 38% capa	city factor									
								Discount	Rate =	0.0803			
			st ====>	Added	Avoided			gy Cost ====		Avoided			
		Alternative		Rated	Capacity	Base	Alternative		Added	Energy		Present	Levelized
	Case	Case			Cost	Case	Case	Difference	Energy	Cost		Worth	Annual
<u>Year</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	MW	<u>\$/kW</u>	<u>M\$</u>	<u>M\$</u>	<u>M\$</u>	<u>GWh</u>	<u>\$/MWh</u>		<u>\$/MWh</u>	<u>\$/MWh</u>
2012	257.906	257.906		0.0	0.00	413.228			0.000				
2013	298.749	298.749	0.000	20.0	0.00	447.764	445.437	2.327	65.887	35.32	1	32.69	51.97
2014	193.100	193.100	0.000	20.0	0.00	607.804	604.635	3.169	65.887	48.10	2	41.21	51.97
2015	237.711	237.711	0.000	20.0	0.00	632.501	629.216	3.285	65.887	49.86	3	39.55	51.97
2016	304.998	304.998	0.000	20.0	0.00	621.836	618.797	3.039	65.887	46.12	4	33.87	51.97
2017	317.821	317.821	0.000	20.0	0.00	657.197	653.924	3.273	65.887	49.68	5	33.76	51.97
2018	330.660	330.660	0.000	20.0	0.00	693.798	690.274	3.524	65.887	53.49	6	33.65	51.97
2019	363.028	363.028	0.000	20.0	0.00	724.193	720.584	3.609	65.887	54.78	7	31.90	51.97
2020	394.667	394.667	0.000	20.0	0.00	751.119	747.519	3.600	65.887	54.64	8	29.45	51.97
2021	398.481	398.481	0.000	20.0	0.00	782.888	779.110	3.778	65.887	57.34	9	28.61	51.97
2022	409.827	409.827	0.000	20.0	0.00	804.507	800.672	3.835	65.887	58.21	10	26.89	51.97
2023	438.768	438.768	0.000	20.0	0.00	853.580	849.617	3.963	65.887	60.15	11	25.72	51.97
2024	456.360	456.360	0.000	20.0	0.00	884.514	880.299	4.215	65.887	63.97	12	25.32	51.97
2025	529.098	529.098	0.000	20.0	0.00	915.950	912.077	3.873	65.887	58.78	13	21.54	51.97
2026	564.862	564.862	0.000	20.0	0.00	921.980	917.952	4.028	65.887	61.13	14	20.73	51.97
2027	622.031	622.031	0.000	20.0	0.00	910.492	906.482	4.010	65.887	60.86	15	19.11	51.97
									NPV =	443.99		443.99	443.99
								Levelized	Annual =	51.97			

Planned capacity additions and firm purchases, with associated capacity costs, in dollars/kW, and energy costs, in cents/kWh, and planned retirements during the succeeding ten years. 18 CFR 292.302(b)(2)--(3)

### **Planned Capacity Additions**

During the 10-year period, 2012 through 2021, Interstate Power and Light Company projects capacity additions from gas fired facilities in its optimized expansion plan:

- 600 MW of combined cycle in 2016, with capital costs of
- 189 MW of combustion turbine in 2019, with capital costs of
- Also included in the optimized expansion plan are various amounts of one year
   50 MW peak power purchases at prices ranging from \$1/kW in 2012 to \$118/kW nominally in 2020.

The exact type, size and timing of new units can change as a function of, but not limited to changes in loads, capacity accreditations, fuel costs, plant retirements and market prices. IPL has not committed to the construction of these units at this time.

### **Planned Capacity Purchases**

Planned Firm Purchases

1)	Adams Wind Farm:	for the duration of the
	contract.	

2)	Ag Land Energy 1 & 3 LLC (McCallsburg):	for
	the duration of the contract.	
3)	Ag Land Energy 2 LLC (Maxwell):	for the
	duration of the contract.	
4)	Ag Land Energy 4 LLC (Hubbard):	for the
	duration of the contract.	
5)	Ag Land Energy 5 & 6 LLC (Jewel):	for the
	duration of the contract.	
6)	Arnold Windfarm LLC: for the duration	on of the
	contract.	
7)	BFC Electric LLC: for the duration	of the
	contract.	
8)	Bingham Lake Wind Farm: for the	duration
	of the contract.	
9)	Buena Vista Wind Farm (Storm Lake Power Partners II):	
10)	Cerro Gordo Wind Farm (Hawkeye Power Partners):	
11)	NextEra Energy DAEC:	
	The unitized fixed charge is a continuous charge in continuous charge is a continuous charge in continuous charge is a continuous charge in continuous charge in continuous charge is a continuous charge in continuous charge in continuous charge is a continuous charge in continuou	capacity-

	related charge subject to increase	or	decrease	related	to	bonus/penalty
	clauses included in the contract.					
12)	Flying Cloud Wind Farm (Iberdrola):					
		Ν	on-Summe	r On-Pe	ak	hours are any
	hour Monday through Friday (exclud	ding	NERC <sup>3</sup> H	lolidays)	foi	hours ending
	0700 to 2200 Central Prevailing T	ime	during al	l month:	s e	excluding June
	through August. Summer On-Peak	c ho	ours are s	imilar h	our	s during June
	through August. Off-Peak hours are a	all o	ther hours.			
13)	Hancock Wind Farm (FPL Energy):					
		N	on-Summe	er On-Pe	ak	hours are any
	hour Monday through Friday (exclude	ding	NERC H	olidays)	for	hours ending
	0700 to 2200 Central Prevailing Ti	ime	during al	l month:	s e	excluding June
	through August. Summer On-Peak	c ho	ours are s	imilar h	our	s during June
	through August. Off-Peak hours are a	all o	ther hours.			
14)	Hardin Hilltop Wind, LLC:			throug	gh ·	the duration of
	the contract.					

<sup>&</sup>lt;sup>3</sup> North American Electric Reliability Corporation.

15)	Junction Hilltop Wind 1 LLC:	through the
	duration of the contract.	
16)	Junction Hilltop Wind 2 LLC:	through the
	duration of the contract.	
17)	Junction Hilltop Wind 3 LLC:	through the
	duration of the contract.	
18)	Junction Hilltop Wind 4 LLC:	through the
	duration of the contract.	
19)	Junction Hilltop Wind 5 LLC:	through the
	duration of the contract.	
20)	Kirkwood Community College:	through the duration
	of the contract.	
21)	LJ Trust:	through the duration of the contract.
22)	Luther College:	through the duration of the
	contract.	
23)	Minnesota Wind (Minn I & Minn II):	
24)	Mitchell Mill Hydro, LLC:	through the duration of
	the contract.	
25)	Neppel Energy:	for the duration of the contract.

26)	North American Hydro (Anamosa):	for the
	duration of the contract.	
27)	North American Hydro (Iowa Falls):	for the
	duration of the contract.	
28)	North American Hydro (Maquoketa):	for the
	duration of the contract.	
29)	Ottumwa Water & Hydro:	
30)	Roeder Family Wind Farm, LLC:	through the
	duration of the contract.	
31)	Sibley Hills:	through the duration of the
	contract.	
32)	Sieve Windfarm LLC:	through the duration of the
	contract.	
33)	University of Iowa: Off-peak energy:	
		On-peak energy:
34)	Wilmont Hills:	for duration of the contract.
35)	Wind Vision LLC:	through the duration of the
	contract.	

36)	Windwalk	ers LLC	<b>C</b> :			th	through the duration of the					
	contract.											
37)	Wolf Win	d Farm:				t	hrough t	he duration	of the			
	contract.											
38)	Zachary	Ridge	LLC	(Wind	Energy	America	a Inc.):					
		thro	ugh th	e duratio	on of the o	contract.						

### **Planned Retirements**

During the 10-year period, 2012 through 2021, for modeling purposes IPL assumed that Sutherland 1 and 3, and Dubuque 3 and 4 converted to natural gas in late 2011/early 2012, then retired end of year 2015.