



Measure What Matters: Affordability in IRP

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The Challenge: Affordability

Affordability is a persistent issue. In 2023, Indiana households earning under \$40,000 spend at least 7% of their income on electricity, and many forgo other necessities to keep the lights on.¹

Concerns about affordability increase every day. In July 2026, the IURC released its Energy Affordability Report, following from the Investigative Inquire on Energy Affordability and associated listening sessions.² There is a clear and urgent need to act on energy affordability in the state.

The core question. *How can utilities embed affordability into the IRP process?*

173,236 residential disconnections for nonpayment in 2025³

2.78M disconnection notices sent for nonpayment in 2025

¹ Billed to the Breaking Point, Citizen's Action Coalition, Indiana Community Action Poverty Institute. Available at: <https://institute.incap.org/assets/docs/Reports/Billed%20to%20the%20Breaking%20Point%20Final.pdf>

² IURC 2026 Investigative Inquiry on Energy Affordability. Available at: <https://www.in.gov/iurc/investigative-inquiry-on-energy-affordability/>

³ Estimate based on reported data from large utilities. Available at: <https://www.in.gov/oucc/featured-topics/arrearage-and-disconnection-data-investigation/>

Indiana IRP Rules: Selections

170 IAC 4-7-4 Integrated resource plan contents; Sec. 4.

An IRP must include the following:

(24) A discussion of how the utilities' resource planning objectives, such as:

- (A) cost effectiveness;
- (B) rate impacts;
- (C) risks; and
- (D) uncertainty;

were balanced in selecting its preferred resource portfolio.

170 IAC 4-7-8 Resource portfolios; Sec. 8.

(b) With regard to candidate resource portfolios, the IRP must include the following:

- (1) An analysis of how candidate resource portfolios performed across a wide range of potential future scenarios, including the alternative scenarios required under section 4(26) of this rule.
- (2) The results of testing and rank ordering of the candidate resource portfolios by key resource planning objectives, including cost effectiveness and risk metrics.
- (3) The present value of revenue requirement for each candidate resource portfolio in dollars per kilowatt-hour delivered, with the interest rate specified.

170 IAC 4-7-8 Resource portfolios; Sec. 8.

(c) Considering the analyses of the candidate resource portfolios, a utility shall select a preferred resource portfolio and include in the IRP the following:

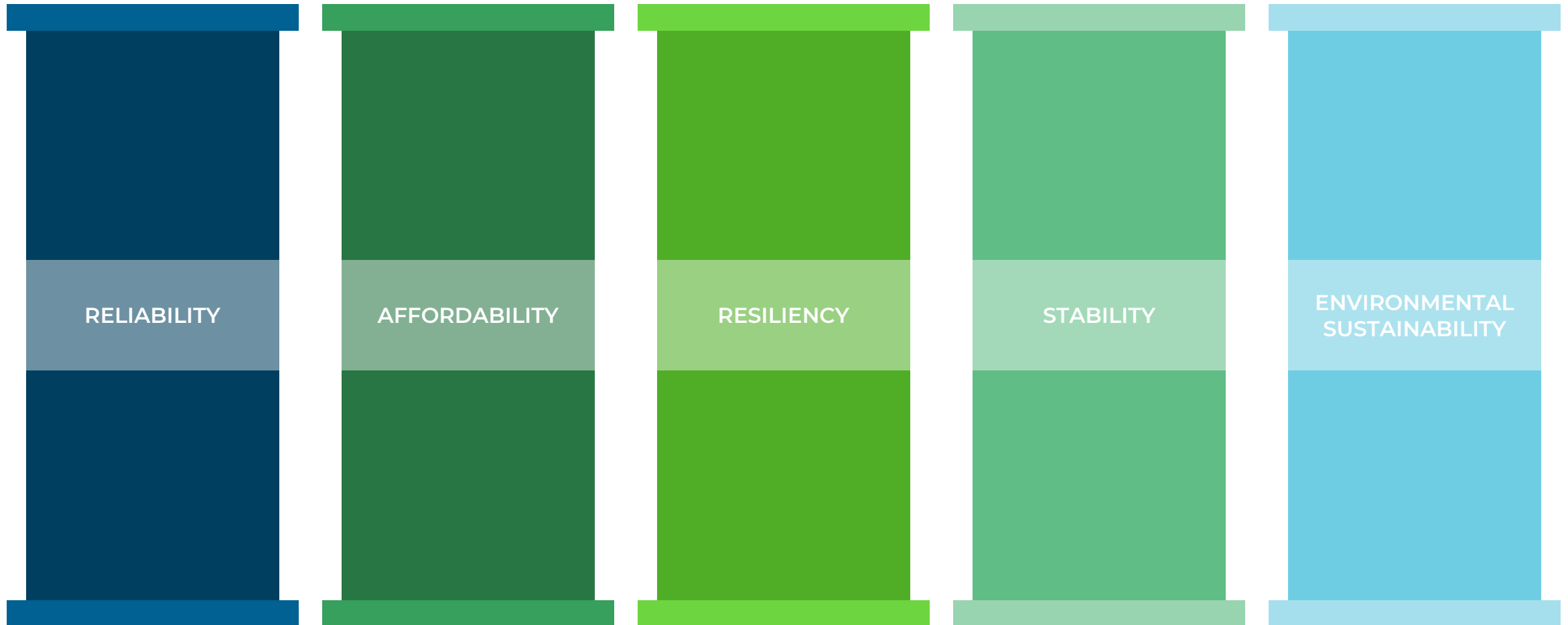
(4) An analysis showing that supply-side resources and demand-side resources have been evaluated on a consistent and comparable basis, including consideration of:

- (A) safety;
- (B) reliability;
- (C) risk and uncertainty;
- (D) cost effectiveness; and
- (E) customer rate impacts.

(7) A discussion of the financial impact on the utility of acquiring future resources identified in the utility's preferred resource portfolio including, where appropriate, the following:

- (A) Operating and capital costs of the preferred resource portfolio.
- (B) The average cost per kilowatt-hour of the future resources, which must be consistent with the electricity price assumption used to forecast the utility's expected load by customer class in section 5 of this rule.
- (C) An estimate of the utility's avoided cost for each year of the preferred resource portfolio.
- (D) The utility's ability to finance the preferred resource portfolio.

Indiana: Five Pillars of Electric Service



The path from modeling to “Preferred Portfolio”

PORTFOLIO DEVELOPMENT



Extensive least-cost capacity expansion modeling to identify lowest-PVRR options under each future

MULTI-METRIC DEVELOPMENT



Determine portfolio performance on many metrics, related to cost, risk, reliability, emissions, etc.

PREFERRED PORTFOLIO SELECTION



Discretionary assessment and selection of preferred portfolio based on metrics

MOST

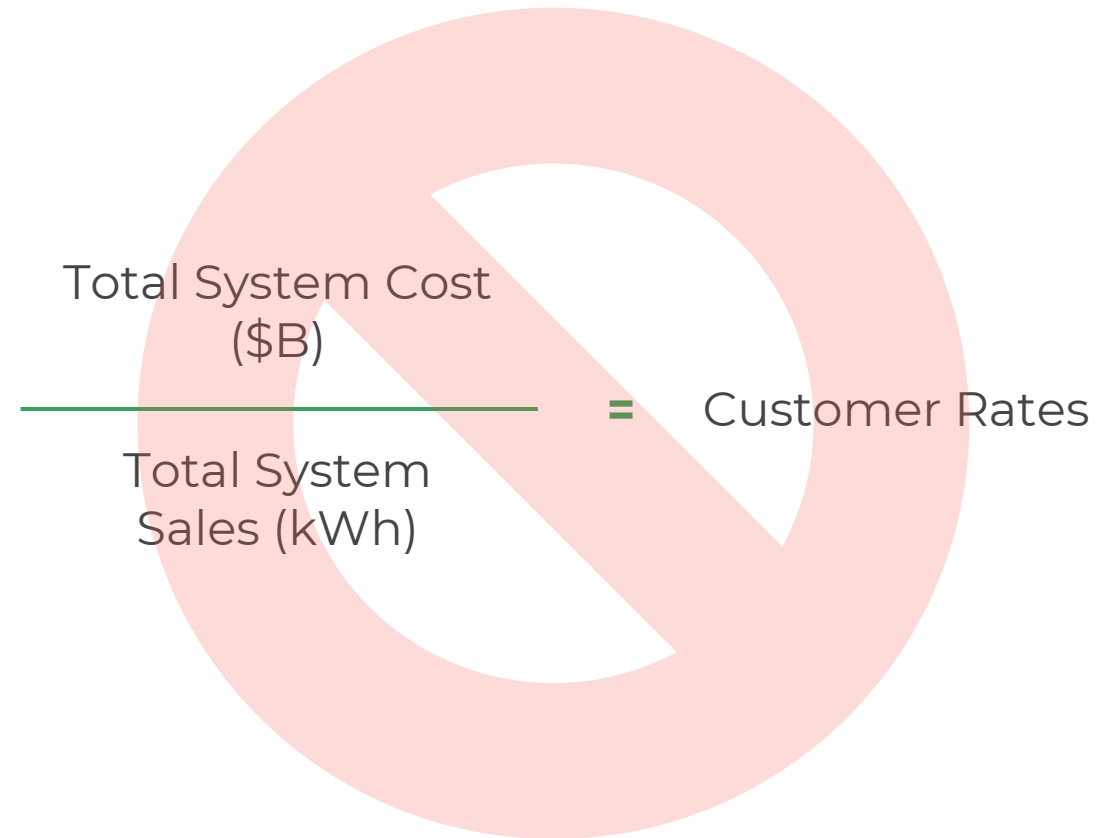
Quantitative, Objective Assessment

LEAST

A metric is only impactful if its use influences *actual* portfolio selection.

A generic “rate impact analysis” does not provide certainty or accountability on affordability.

- System-wide average cost is not a proxy for actual ratepayer cost.
- This calculation **only incorporates incremental generation cost**. No inclusion of transmission costs, burden to the existing system, or impacts on energy and capacity market prices.
- Utilities who perform these analyses themselves **caveat** them as broad-based and not representative.
- Key assumptions are **opaque and confidential**, so analysis cannot be independently verified.



Guiding Questions

- Do the selected metrics align with Indiana's goals?
- Are metrics included that are outside-of-scope?
- Do selected metrics actually measure stated elements?
- Are metrics appropriately weighted?
- Are metrics quantitatively assessed? (E.g., are there thresholds or relative comparisons?)
- Do the metrics influence preferred portfolio selection? Is that influence quantifiable, or simply qualitative?

Current State: Preferred Portfolio Selection

**AES Indiana**

17 metrics across 4 categories:

- Affordability (4)
- Reliability, resiliency, and stability (5)
- Risk & opportunity (6)
- Environmental (2)

Affordability Metrics:

- 10-Year Levelized Supply Cost (\$2026/MWh), 2026-2035
- 25-Year Levelized Supply Cost (\$2026/MWh), 2026-2035
- 10-Year PVRR (\$2026MM), 2026-2035
- 25-Year PVRR(\$2026MM), 2025-2035

Scorecard:

- Metrics assessed across four portfolios and four load forecasts (16 total scenarios)
- No threshold or quantification, default Microsoft color coding
- Narrative justification for preferred portfolio only

AES Indiana 2025 IRP, Volume 1, p.151

**CenterPoint**

16 Metrics across 4 categories:

- Affordability (4)
- Environmental sustainability (4)
- Reliability/resilience/stability (4)
- Risk/other (4)

Affordability Metrics:

- 20-Year NPVRR(\$MM)
- 5% Value of NPVRR (\$M)
- 95% Value of NPVRR (\$M)
- Incremental Energy Burden (%), 2030-35

Scorecard:

- Metrics assessed across twelve portfolios under reference load forecasts, five under alternate reference case
- No threshold or quantification, default Microsoft color coding
- Narrative justification for preferred portfolio only, most detailed of recent IRPs

CenterPoint 2025 IRP, p.150

**Duke Energy**

15 Metrics across 7 categories:

- Environmental sustainability (3)
- Affordability (2)
- Reliability (2)
- Resiliency (2)
- Cost risk (2)
- Market exposure (2)
- Execution risk (2)

Affordability Metrics:

- PVRR (\$B), 2024-2044
- Customer Bill Impact, CAGR, 2030, 2035

Scorecard:

- Metrics assessed across six portfolios under reference load forecasts
- No threshold or quantification, no color coding
- Narrative justification for preferred portfolio only

Duke IRP, p.#

AES Indiana: Scorecard

Figure 9-83: 2025 IRP Scorecard Results

Data Center Case	Portfolio	AFFORDABILITY				RELIABILITY, RESILIENCY, AND STABILITY					RISK & OPPORTUNITY				ENVIRONMENTAL	
		10-Year Levelized Supply Cost	25-Year Supply Cost	10-Year PVRR	25-Year PVRR	Market Purchases + Sales	25-yr energy purchases, % of load	25-yr energy sales, % of load	Dispatchable Capacity, Percent of Peak (2035)	Dispatchable FIRM Capacity, Percent of Peak (2035)	Opportunity Risk (P95-Mean - P5)	Risk (P95-Mean)	Enviro. Scenario Risk	Avg. % Difference from Optimal	Total CO2 Emissions (25-yr)	Carbon Intensity (25-yr avg.)
	Units →	\$2026/MWh	\$2026/MWh	2026\$MM	2026\$MM	%	%	%	%	%	%	%	2026\$MM	%	Million Tons	lb/MWh
No Data Center Load	Reference Case	\$149	\$161	\$5,126	\$10,092	26%	16%	10%	111%	90%	17%	18%	\$234	0%	147	772
	Gas Infrastructure Challenges	\$149	\$162	\$5,154	\$10,161	21%	13%	8%	111%	90%	17%	18%	\$237	4%	146	766
	High Regulatory: Environmental	\$156	\$188	\$5,906	\$15,455	25%	11%	14%	111%	91%	7%	9%	\$0	52%	99	523
	Stable Markets Scenario	\$149	\$161	\$5,126	\$10,070	27%	18%	9%	111%	90%	17%	19%	\$57	0%	153	805
Low Data Center	Reference Case	\$144	\$151	\$5,985	\$12,654	23%	15%	8%	121%	99%	14%	18%	\$239	3%	183	806
	Gas Infrastructure Challenges	\$148	\$153	\$6,400	\$13,047	21%	11%	10%	118%	98%	12%	15%	\$970	7%	177	777
	High Regulatory: Environmental	\$153	\$180	\$7,099	\$19,827	26%	12%	14%	117%	96%	6%	8%	\$0	53%	111	486
	Stable Markets Scenario	\$145	\$151	\$6,020	\$12,699	23%	15%	8%	119%	97%	15%	18%	\$196	1%	194	854
Mid Data Center	Reference Case	\$138	\$139	\$7,971	\$18,187	17%	12%	5%	122%	102%	11%	16%	\$658	3%	247	812
	Gas Infrastructure Challenges	\$139	\$140	\$8,220	\$18,499	17%	10%	7%	117%	99%	11%	15%	\$1,217	6%	232	763
	High Regulatory: Environmental	\$151	\$174	\$10,236	\$30,040	21%	10%	11%	118%	98%	4%	6%	\$0	60%	117	384
	Stable Markets Scenario	\$138	\$139	\$7,967	\$18,266	17%	12%	4%	121%	100%	12%	18%	\$209	2%	278	914
High Data Center	Reference Case	\$134	\$132	\$9,975	\$23,754	15%	10%	5%	118%	102%	11%	15%	\$1,434	3%	295	779
	Gas Infrastructure Challenges	\$135	\$133	\$10,132	\$24,032	14%	8%	7%	125%	109%	10%	14%	\$1,851	5%	292	770
	High Regulatory: Environmental	\$145	\$164	\$12,246	\$37,871	18%	10%	8%	120%	99%	4%	7%	\$0	52%	149	394
	Stable Markets Scenario	\$134	\$133	\$9,959	\$23,990	14%	10%	4%	133%	112%	11%	16%	\$590	2%	333	879

CenterPoint: Scorecard

Figure 4-8 – IRP Portfolio Balanced Scorecard Color-Coded Comparison

Objective	Affordability					Environmental Sustainability				Reliability/Resiliency/Stability				Risk/Other				
Portfolio Description	20 Year NPVRR (\$M)	Delta From Reference (%)	5% Value of NPVRR (\$M)	95% Value of NPVRR (\$M)	Incremental Energy Burden (%)	CO ₂ Intensity (Tons CO ₂ e/MWh)	CO ₂ Equivalent Emissions (Stack Emissions) (1000s Tons CO ₂ e)	SOx Emissions (Tons)	NOx Emissions (Tons)	Unreserved Energy (MWh)	Spinning Reserve (MW)	Fast Start Capability (MW)	Transmission Reliability Analysis		Energy Market Sales (%)	Energy Market Purchases (%)	Capacity Sales NPV (\$M)	Capacity Purchases NPV (\$M)
					2030 - 2035								MVAR	SCR				
2-FBC3 NG 2035	\$3,718	0%	\$2,941	\$4,464	0.13% - 0.22%	0.368	48,696	18,017	13,091	119	1,031	253	753	3.5	26%	9%	\$217	\$6
1-Reference Case	\$3,726	0%	\$2,963	\$4,439	0.11% - 0.25%	0.346	44,302	12,877	10,650	61	842	340	665	3.5	26%	10%	\$140	\$14
8-Low Reg	\$3,764	1%	\$2,983	\$4,475	0.15% - 0.20%	0.345	44,199	12,908	10,582	49	842	366	665	3.5	26%	10%	\$167	\$6
12-Delayed Reference	\$3,836	3%	\$3,195	\$4,467	0.16% - 0.26%	0.391	46,535	21,885	14,539	56	701	444	665	3.5	23%	12%	\$115	\$18
11-FBC3 Co-Fire	\$3,854	3%	\$3,064	\$4,587	0.18% - 0.17%	0.354	46,317	14,397	11,812	61	937	308	753	3.5	26%	10%	\$192	\$12
3-FBC3 on Coal	\$4,034	8%	\$3,511	\$4,630	0.03% - 0.29%	0.522	53,636	51,793	25,931	43	302	835	626	3.5	15%	19%	\$117	\$22
10-Alt High Reg	\$4,211	13%	\$3,444	\$4,829	0.17% - 0.48%	0.280	34,415	14,226	10,985	29	660	486	665	3.5	25%	9%	\$159	\$19
9-High Reg	\$4,297	15%	\$3,543	\$4,926	0.43% - 0.44%	0.234	25,913	13,701	12,322	15	113	935	605	3.5	20%	14%	\$128	\$23
5-FBC3 to SCGT	\$4,306	16%	\$3,857	\$4,770	0.14% - 0.59%	0.408	41,016	22,763	16,698	73	154	955	665	3.5	14%	21%	\$93	\$26
6-Renewable Heavy	\$4,309	16%	\$3,756	\$4,723	0.10% - 0.62%	0.329	28,966	14,385	14,597	38	113	985	605	3.5	11%	30%	\$95	\$22
7-FBC3 NG with Renewables	\$4,375	17%	\$3,912	\$4,771	0.26% - 0.49%	0.357	34,642	8,289	18,780	76	302	802	626	3.5	14%	23%	\$106	\$24
4-FBC3 to SMR	\$4,456	20%	\$3,674	\$5,185	0.15% - 0.76%	0.342	45,224	18,653	11,950	52	938	273	665	3.5	26%	9%	\$171	\$13

Duke: Scorecard

Figure 5-5: 2024 IRP Scorecard

Portfolio Scorecard			Convert/Co-Fire Coal	Retire Coal	Blend 1	Blend 2	Blend 4	Exit Coal Earlier (Stakeholder)
Environmental Sustainability	CO ₂ Emissions Reduction	2035	74%	73%	70%	72%	74%	72%
		2044	91%	81%	81%	84%	88%	86%
	Cumulative CO ₂ Reduction (Mt)	2044	367	340	337	348	367	362
		2035	715	572	710	678	666	652
Affordability	PVRR (\$B)	2044	\$25.0	\$23.6	\$24.2	\$24.3	\$24.5	\$24.3
		2030	3.9%	3.7%	3.9%	4.0%	4.0%	4.3%
	Customer Bill Impact (CAGR)	2035	3.1%	3.3%	2.8%	3.1%	2.9%	3.1%
Reliability	Fast Start Capability	2035	39%	31%	33%	33%	33%	38%
	Spinning Reserve Capability	2035	93%	93%	98%	102%	100%	87%
Resiliency	Resource Diversity (HHI)	2035	1766	3853	2802	2739	1758	2291
	Simulated EUE in 95* Percentile Cold Weather (Islanded System)	2035	2.8%	1.9%	0.9%	1.4%	2.1%	3.7%

Portfolio Scorecard			Convert/Co-Fire Coal	Retire Coal	Blend 1	Blend 2	Blend 4	Exit Coal Earlier (Stakeholder)
Cost Risk	Cost Variability Across Scenarios (\$B)	2044	\$24.0-\$28.1	\$21.8-\$26.8	\$22.4-\$27.2	\$22.9-\$26.9	\$23.3-\$27.8	\$23.4-\$27.2
		2030	81%	43%	81%	50%	49%	57%
	IRA Exposure	2035	81%	29%	20%	22%	33%	39%
Market Exposure	Fuel Market Exposure	Average	61%	72%	76%	72%	66%	70%
	Maximum Energy Market Exposure	Annual Max.	69%	43%	51%	53%	66%	52%
Execution Risk	Cumulative Resource Additions in MW	2030	1,037	1,656	1,037	1,856	1,831	2,181
		2035	1,823	5,568	4,049	4,149	2,686	4,105
	Cumulative Resource Additions as % of Current System	2030	13%	20%	13%	23%	23%	27%
		2035	22%	69%	50%	51%	33%	51%

Note: Expected Unserved Energy ("EUE") is stochastically simulated for Duke Energy Indiana as an islanded system.

Current State: Preferred Portfolio Selection



Indiana Michigan Power (I&M)

11 metrics across 5 categories:

- Affordability (3)
- Environmental sustainability (3)
- Reliability (3)
- Reliability/Resilience (1)
- Grid Stability (1)

Affordability Metrics:

- 7-Year Rate CAGR Power Supply (%), 2024-2031
- Supply Portfolio NPVRR Power Supply Costs (\$B), 2025-2044
- High Minus Low Scenario Range, Portfolio NPVRR (\$B), 2025-2044

Scorecard:

- Metrics assessed across fifteen portfolios
- No threshold or quantification, no color coding
- Narrative justification for preferred portfolio only

Indiana Michigan Power 2024 IRP, p.185



NIPSCO

9 Metrics across 5 categories:

- Affordability (2)
- Rate stability (5)
- Environmental sustainability (1)
- Reliable, flexible, and resilient supply (1)
- Positive social and economic impacts (1)

Affordability Metrics:

- 10-Year NPVRR(\$2024MM)
- 30-Year NPVRR (\$2024MM)

Scorecard:

- Metrics assessed across eight portfolios under reference load forecasts
- No threshold or quantification, no color coding
- Narrative justification for preferred portfolio only

NIPSCO 2024 IRP, p.260

I&M: Scorecards

Table 61. Candidate Portfolios Performance Indicator Metrics

Pillar	Affordability			Environmental Sustainability		
Performance Indicators and Metrics	Short Term 7-yr Rate CAGR Power Supply \$/MWh	Long Term Supply Portfolio NPVRR Power Supply Costs	Portfolio Resilience: High Minus Low Scenario Range, Portfolio NPVRR	Emissions Analysis: % Change from 2005 Baseline		
Year Ref.	2024-2031	2025-2044	2025-2044	2034 2044		
Units	%	\$B	\$B	% Change CO ₂	% Change NO _x	% Change SO ₂
Base Reference	-0.5%	\$32.0	\$13.4	2034: -39% 2044: -24%	2034: -94% 2044: -93%	2034: -100% 2044: -100%
Low Carbon: Transition	1.3%	\$39.9	\$9.8	2034: -65% 2044: -65%	2034: -96% 2044: -96%	2034: -100% 2044: -100%
Expanded Wind Availability (EER)	0.5%	\$32.8	\$11.4	2034: -56% 2044: -55%	2034: -95% 2044: -95%	2034: -100% 2044: -100%

Table 62. Candidate Portfolios Performance Indicator Metrics

Pillar	Reliability			Reliability/ Resiliency	Grid Stability
				Resiliency	Resiliency
Performance Indicators and Metrics	Energy Market Risk Purchases	Energy Market Risk Sales	Planning Reserves % Reserve Margin	Resource Diversity	Fleet Resiliency: Dispatchable Capacity
Year Ref.	10 years 20 years	10 years 20 years	10 years 20 years	10 years 20 years	10 years 20 years
Units	NPV of Market Purchases & MWhs % of Total Demand	NPV of Market Sales & MWhs % of Total Demand	Average of Annual PRM %	Portfolio Index Percent Change from 2025	Dispatchable Nameplate MW/ % of Company Peak Demand
Base Reference	10 Years: \$2.6B (27%) 20 Years: \$4.3B (22%)	10 Years: \$0.0B (0.1%) 20 Years: \$0.1B (0.3%)	10 Years: -0.7% 20 Years: -3.4%	Capacity: 31% 19% Energy: 173% 139%	10 Years: 90% 20 Years: 97%
Low Carbon: Transition	10 Years: \$2.7B (27%) 20 Years: \$4.1B (20%)	10 Years: \$0.2B (1.6%) 20 Years: \$1.7B (7.7%)	10 Years: 2.0% 20 Years: 0.5%	Capacity: 53% 54% Energy: 302% 304%	10 Years: 91% 20 Years: 95%
Expanded Wind Availability (EER)	10 Years: \$3.1B (31%) 20 Years: \$5.4B (27%)	10 Years: \$0.5B (3.5%) 20 Years: \$1.3B (5.2%)	10 Years: 5.1% 20 Years: -0.6%	Capacity: 31% 34% Energy: 296% 318%	10 Years: 92% 20 Years: 92%

NIPSCO: Scorecard

Figure 9-39: Portfolio Scorecard

		A	B	C	D	D-CCUS	D-H2	E	F
Carbon Emissions Constraint		No EPA GHG Constraints		EPA GHG Rules				Emissions Controls At Start-Up	
MISO Market Rules		Current Market Rules	Direct Loss of Load	Current Market Rules	Direct Loss of Load			Current Market Rules	Direct Loss of Load
Cost To Customer	10-year NPVRR (Ref Case) \$M	\$10,307	\$10,735	\$10,244	\$10,677	\$10,993	\$10,993	\$10,951	\$11,309
		+\$62	+\$491	-	+\$433	+\$749	+\$749	+\$705	+\$1,065
	30-year NPVRR (Ref Case) \$M	\$25,142	\$25,626	\$25,471	\$25,922	\$27,236	\$27,999	\$27,984	\$28,756
		-	+\$484	+\$329	+\$780	+\$2,094	+\$2,857	+\$2,842	+\$3,614
Cost Certainty		\$9,669	\$10,245	\$7,815	\$9,286	\$5,414	\$4,717	\$5,232	\$5,451
30-year Scenario Range NPVRR \$M		+\$4,952	+\$5,529	\$3,098	\$4,569	\$697	-	\$516	+\$735
Cost Risk		\$53.1	\$53.3	\$54.2	\$56.8	\$54.1	\$54.1	\$45.1	\$45.0
95 th % Cost Risk		+\$8.1	+\$8.4	+\$9.2	+\$11.9	+9.2	+9.2	+\$0.2	-
Lower Cost Opp.		-\$37.4	-\$37.3	-\$37.4	-\$39.2	-\$38.9	-\$38.9	-\$35.4	-\$36.3
5 th % Cost Risk		+\$1.8	+\$1.9	+\$1.8	-	+\$0.3	+\$0.3	+\$3.8	+\$2.9
Carbon Emissions		0.23	0.24	0.19	0.22	0.18	0.20	0.09	0.09
M of tons/MWh 2024-40 Cum.		+0.14	+0.15	+0.10	+0.13	+0.09	+0.11	-	-
Reliability		235	86	89	4	4	4	793	515
Forced Market Exposure (GWh)		+231	+82	+85	-	-	-	+789	+511
Flexibility		3,849	4,482	4,121	4,812	4,632	4,812	3,905	4,456
New capacity able to respond within 30 mins (MW)		-963	-330	-691	-	-180	-	-907	-356
Local Economy		\$1,849	\$1,853	\$1,938	\$1,840	\$2,229	\$2,097	\$2,619	\$2,698
NPV of property taxes		-\$849	-\$845	-\$760	-\$858	-\$484	-\$609	-\$79	-

Guiding Questions

- Do the selected metrics align with Indiana's goals?
- Are metrics included that are outside-of-scope?
- Do selected metrics actually measure stated elements?
- Are metrics appropriately weighted?
- Are metrics quantitatively assessed? (E.g., are there thresholds or relative comparisons?)
- Do the metrics influence preferred portfolio selection? Is that influence quantifiable, or simply qualitative?

Preferred Approach

- **Scorecard:**

- Aligned with Indiana goals
- Equally weighted metrics
- No out-of-scope metrics
- Thresholds or relative quantitative assessment for all metrics
- Color coding only reflective of actual assessment

- **Portfolio Selection**

- Based on scored portfolio

Preferred Metrics

COST METRIC

Present Value of Revenue
Requirement (PVRR)

10-Year
and
Full Modeled Period

AFFORDABILITY

Residential Energy Burden

Total Residential Bill
÷
County-Level Median Household
Income

Energy Burden Calculation

Electric Energy Burden

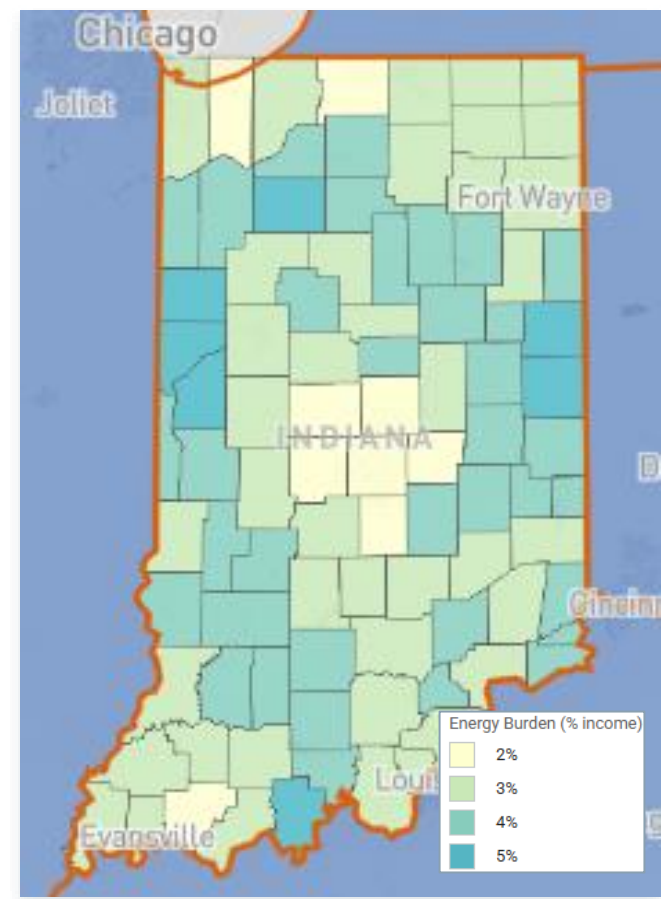
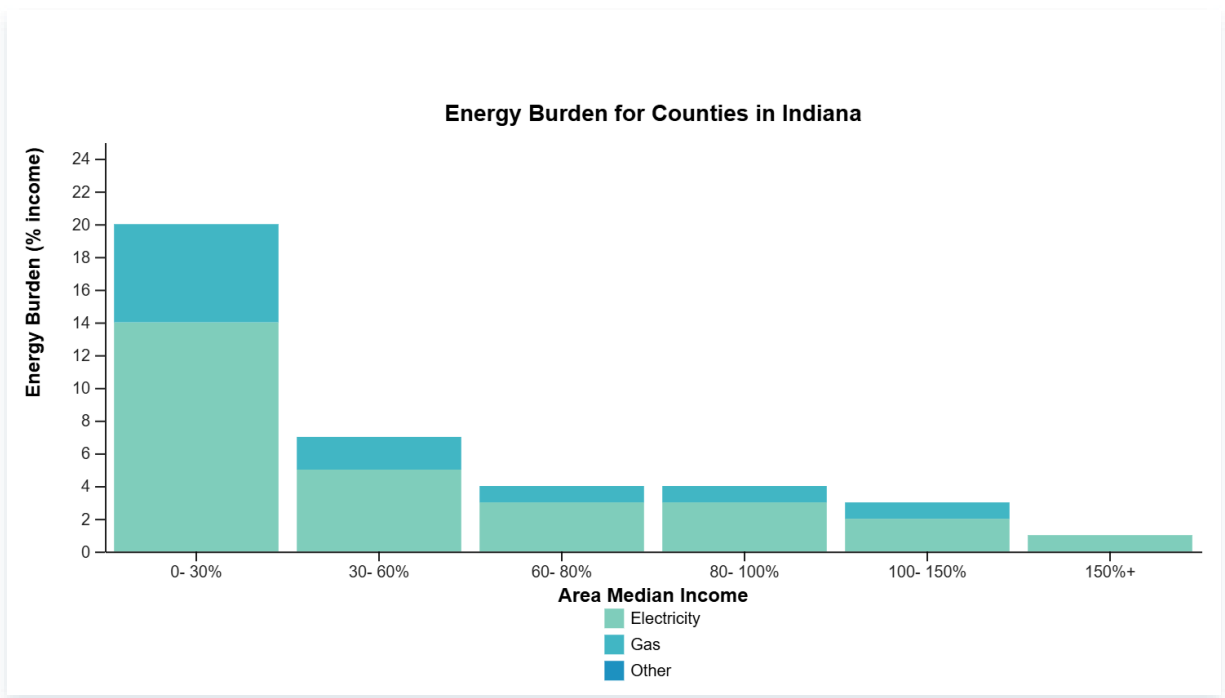
Total Average Residential Bill
for Median kWh Usage
(Annual)
÷
Median Household Income
(by County)

Example

\$1920/year
(at a median monthly usage of 650 kWh)
÷
\$71,115/year
(weighted median income across 24 Indiana counties)

= 2.7%

Energy Burden



Preferred Approach

▪ Scorecard:

- Aligned with Indiana goals
- Equally weighted metrics
- No out-of-scope metrics
- Thresholds or relative quantitative assessment for all metrics
- Color coding only reflective of actual assessment

▪ Portfolio Selection

- Based on scored portfolio

COST METRIC

Present Value of Revenue Requirement
(PVRR)

10-Year
and
Full Modeled Period

AFFORDABILITY

Residential Energy Burden

Total Residential Bill

÷

County-Level Median Household Income

Questions?



Nina Peluso

Measure What Matters: Affordability in IRP

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Appendix: Large Utility Rates 2017-2026

