STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF INDIANA MICHIGAN POWER) COMPANY. AN INDIANA CORPORATION. FOR AUTHORITY TO INCREASE ITS RATES AND CHARGES FOR ELECTRIC UTILITY SERVICE THROUGH A PHASE IN RATE ADJUSTMENT: AND FOR APPROVAL OF **RELATED RELIEF INCLUDING: (1) REVISED DEPRECIATION RATES; (2) ACCOUNTING RELIEF: (3) INCLUSION IN RATE BASE OF** QUALIFIED POLLUTION CONTROL PROPERTY AND CLEAN ENERGY PROJECT; (4) ENHANCEMENTS TO THE DRY SORBENT INJECTION SYSTEM; (5) ADVANCED METERING INFRASTRUCTURE; (6) RATE ADJUSTMENT MECHANISM PROPOSALS; AND (7) NEW SCHEDULES OF RATES, RULES AND REGULATIONS.

FILED October 4, 2019 INDIANA UTILITY REGULATORY COMMISSION

CAUSE NO. 45235

PETITIONER'S NOTICE OF SECOND CORRECTIONS

Petitioner Indiana Michigan Power Company (I&M), by counsel, hereby submits the attached clean and redline revised pages to the prefiled testimony and attachments of I&M witnesses Andrew R. Carlin, David S. Isaacson, Jeffrey W. Lehman, David A. Lucas, Matthew W. Nollenberger, and Andrew J. Williamson.

A clean copy of the revised pages will be included in the court reporter copy

offered into evidence at the hearing.

Respectfully submitted,

1th

Teresa Morton Nyhart (Atty. No. 14044-49) Jeffrey M. Peabody (Atty. No. 28000-53) BARNES & THORNBURG LLP 11 South Meridian Street Indianapolis, Indiana 46204 Nyhart Phone: (317) 231-7716 Peabody Phone: (317) 231-6465 Fax: (317) 231-6465 Fax: (317) 231-7433 Nyhart Email: tnyhart@btlaw.com Peabody Email: jpeabody@btlaw.com

Attorneys for: INDIANA MICHIGAN POWER COMPANY

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing was served upon the following via

electronic email, hand delivery or First Class, or United States Mail, postage prepaid

this 4th day of October, 2019 to:

Tiffany Murray Indiana Office of Utility Consumer Counselor Office of Utility Consumer Counselor 115 West Washington Street, Suite 1500 South Indianapolis, Indiana 46204 timurray@oucc.in.gov infomgt@oucc.in.gov

Kurt J. Boehm, Esq. Jody Kyler Cohn, Esq. Boehm, Kurtz & Lowry 36 East Seventh Street, Suite 1510 Cincinnati, Ohio 45202 KBoehrn@BKLlawfirm.com JKylerCohn@BKLlawfirm.com

Robert K. Johnson 2454 Waldon Dr. Greenwood, IN 46143 rjohnson@utililtylaw.us

J. Christopher Janak Kristina Kern Wheeler BOSE MCKINNEY & EVANS LLP 111 Monument Circle, Suite 2700 Indianapolis, Indiana 46204 cjanak@boselaw.com kwheeler@boselaw.com

Robert M. Glennon Robert Glennon & Assoc., P.C. 3697 N. Co. Rd. 500 E. Danville, IN 46122 robertglennonlaw@gmail.com Jennifer A. Washburn Margo Tucker Citizens Action Coalition 1915 W. 18th Street, Suite C Indianapolis, Indiana 46202 jwashburn@citact.org mtucker@citact.org

John P. Cook, Esq. John P. Cook & Associates 900 W. Jefferson Street Franklin, Indiana 46131 john.cookassociates@earthlink.net

Kevin Higgins Energy Strategies, LLC Parkside Towers, 215 South State Street, Suite 200 Salt Lake City, Utah 84111 khiggins@energystrat.com

Bette J. Dodd Joseph P. Rompala Anne E. Becker LEWIS & KAPPES, P.C. One American Square, Suite 2500 Indianapolis, IN 46282-0003 BDodd@Lewis-Kappes.com JRompala@Lewis-Kappes.com

Courtesy copy to: ATyler@lewis-kappes.com ETennant@lewis-kappes.com Brian C. Bosma Kevin D. Koons Ted W. Nolting Kroger Gardis & Regas, LLP 111 Monument Circle Drive, Suite 900 Indianapolis, IN 46204-5125 bcb@kgrlaw.com kdk@kgrlaw.com twn@kgrlaw.com

Eric E. Kinder SPILMAN THOMAS & BATTLE, PLLC 300 Kanawha Boulevard, East P. O. Box 273 Charleston, WV 25321 ekinder@spilmanlaw.com

Barry A. Naum SPILMAN THOMAS & BATTLE, PLLC 1100 Bent Creek Boulevard, Suite 101 Mechanicsburg, PA 17050 bnaum@spilmanlaw.com Randolph G. Holt PARR RICHEY c/o Wabash Valley Power Alliance 6720 Intech Blvd. Indianapolis, IN 46278 r_holt@wvpa.com

Jeremy L. Fetty Liane K. Steffes PARR RICHEY 251 N. Illinois Street, Suite 1800 Indianapolis, IN 46204 jfetty@parrlaw.com Isteffes@parrlaw.com

Courtesy copy to: CHolcomb@parrlaw.com

Jeffery A. Earl BOSE MCKINNEY & EVANS LLP 111 Monument Circle, Suite 2700 Indianapolis, IN 46204 jearl@boselaw.com

Mark W. Cooper Attorney at Law 1449 North College Avenue Indianapolis, IN 46202 attymcooper@indy.rr.com Shaw R. Friedman Friedman & Associates, P.C. 705 Lincolnway LaPorte, IN 46350 sfriedman.associates@frontier.com

Keith L. Beall CLARK, QUINN, MOSES, SCOTT & BOSE MCKINNEY & EVANS LLP GRAHN, LLP 320 N. Meridian St, Suite 1100 Indianapolis, IN 46204 kbeall@clarkquinnlaw.com

W. Erik Weber, Esquire Mefford Weber and Blythe 130 East Seventh Street Auburn, IN 46706-1839 erik@lawmwb.com

Nikki G. Shoultz 111 Monument Circle, Suite 2700 Indianapolis, IN 46204 nshoultz@boselaw.com

Jeffrey M. Peabody

Teresa Morton Nyhart (No. 14044-49) Jeffrey M. Peabody (No. 28000-53) **BARNES & THORNBURG LLP** 11 South Meridian Street Indianapolis, Indiana 46204 Nyhart Phone: (317) 231-7716 Peabody Phone: (317) 231-6465 Nyhart Email: tnyhart@btlaw.com Peabody Email: ipeabody@btlaw.com

Attorneys for: INDIANA MICHIGAN POWER COMPANY

DMS 15224990v1

ANDREW CARLIN REBUTTAL - 18 (Revised)

Year	Overall AEP Operating Earnings Score (As a Percent of Target)
2014	182.7%
2015	191.0%
2016	170.5%
2017	92.0%
2018	144.9%
5 Year Average	156.2%

Figure ARC-2R

1 Furthermore, similar to annual incentive compensation, the performance

2 units awarded under the Company's long-term incentive plan have paid out at far

3 higher than the target level on average, as shown on Figure ARC-3R below:

Three Year Performance Period	Performance Unit Score (As a Percent of Target)
2012 – 2014	148.7%
2013 – 2015	176.3%
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5 Period Average	158.1%

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4 Performance units represent 70% of the Company's long-term incentive awards.

5 While annual and long-term incentive compensation payouts can vary both 6 above and below the target level, customers have received and are likely to 7 continue to receive the benefits of above-target incentive compensation on 8 average going forward. The Company's shareholders have paid and will continue 9 to pay the above-target portion of both annual and long-term incentive

Grid Modernization	Units	Driver	2019	2020
AMI	Units	Customer Experience, Reliability	0	60,038
Distribution Line Sensors	Units	Reliability	120	0
Distribution Automation	Scheme	Reliability	6	5
Station SCADA	Station	Reliability	1.75	2.25
Smart Reclosers	Units	Reliability	105	93
Smart Circuit Ties	Line Miles	Reliability	19.19	24.32
Total	Units	Driver	2019	2020

Figure DSI-11 Summary of Grid Modernization Work Plan (Indiana)

Figure DSI-12 Grid Modernization Project Capital Expenditures (Indiana – \$000)

Grid Modernization	2019	2020
AMI	\$0	\$ 10,777
Distribution Line Sensors	\$189	\$0
Distribution Automation	\$6,771	\$4,878
Station SCADA	\$2,433	\$3,350
Smart Reclosers	\$1,477	\$1,326
Smart Circuit Ties	\$6,294	\$13,238
Totals	\$17,164	\$33,569

Figure DSI-13 Projected Grid Modernization Project O&M Expenditures (Indiana – \$000)

Grid Modernization	2019	2020
AMI	\$0	\$310
Smart Reclosers	\$2	\$2
Smart Circuit Ties	\$126	\$164
Total	\$128	\$ 166<u>476</u>

1		V. AMI DEPLOYMENT
2	Q.	What are I&M's plans to implement AMI in Indiana?
3	A.	I&M will be deploying AMI across its Indiana service territory over a three-year
4		period from 2020 through 2022. The goal is to deploy AMI to all customers, with
5		the possible exception of large industrial customers.
6	Q.	Do other I&M witnesses support I&M's AMI deployment plan?
7	A.	Yes. Company witness Thomas discusses the Company's decision to deploy AMI
8		at this time. Company witness Lucas supports the customer engagement strategy.
9		Company witness Williamson describes I&M's requested regulatory treatment. My
10		testimony supports the need for this investment from an operational perspective,
11		the cost of installing the meters and communication network, and the benefits that
12		AMI will provide for the distribution system.
13	Q.	Why is AMI a necessary investment to make at this time from an operational
14		perspective?
15	A.	First, 35% of the AMR meters deployed in I&M's Indiana service territory will reach
16		the end of their design life by the startend of the proposed AMI deployment. Rather
17		than a patchwork AMI deployment to replace AMR meters as they reach the end
18		of their design lives, it is prudent to build out the entire AMI system in a single
19		deployment. This approach is the most efficient and effective way to gain the most
20		benefits from the AMI technology. For example, if AMI were deployed in pockets
21		across I&M's Indiana service territory, the cost of deployment would increase;
22		areas without AMI would not benefit from visibility into system conditions and

JEFFREY LEHMAN - 11 (REVISED)

1 A PEV is fundamentally an electric appliance that follows its owner/driver -2 when the owner/driver is at work, the vehicle is also at work; when the owner/driver 3 is at home, the vehicle is also at home. It is most simple and convenient for the 4 owner/driver to connect the vehicle to an Electric Vehicle Supply Equipment (EVSE. 5 commonly referred to as a charger) if one is available, upon arrival at their 6 destination. By default, unless the owner is encouraged with utility program 7 incentives, the vehicle will begin to charge at this time at the full power allowed by 8 the connected EVSE. This is the same time when the owner/driver will be using lights. 9 cooking appliances, space heating, space cooling, and many other electric 10 appliances – thereby adding the PEV load coincident to their existing electricity 11 demand.

12 If this increase in coincident peak demand occurs, it is highly likely to cause 13 energy generation from higher cost sources, require additional system capacity, and 14 cause additional system equipment wear. These all add to system costs, which are 15 then recovered through all electric utility customers, and do not allow downward rate 16 pressure for all customers to occur.

17 It is highly unlikely that the outcome of increased system utilization and
 18 downward rate pressure will occur unless electric utilities are engaged to create
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PLUG-IN ELECTRIC VEHICLE CHARACTERISTICS

21 Q. Please describe whether PEVs are different than other electrical appliances.

A. PEVs are fundamentally different than other current electrical appliances in the
following ways, as provided in work paper JWL-12:

Q. How does I&M's proposal for home charging benefit all customers, and how much benefit per participant is projected?

3 Α. The I&M proposal establishes pricing incentives for residential and small commercial 4 customers to use the scheduling technology in their PEVs, charging equipment, or 5 associated smartphone apps to charge their PEV during the off-peak hours specified 6 in the proposal. Importantly, it provides a \$500 rebate incentive for participating in the 7 program which helps customers offset initial electrical costs that may be required to 8 provide a dedicated 240V circuit. This dedicated circuit allows the PEV to charge 9 entirely during the off-peak period. By helping customers who drive electric remove 10 cost barriers to electrical installation and understand RS-PEV and GS-PEV off-peak 11 incentives, all PEV charging can occur within the off-peak period, maximizing benefits 12 to all I&M customers.

Figure JWL-3 provides a summary of the benefits to all I&M customers per
 residential and small commercial home charging participant, as provided in work
 paper JWL-<u>1</u>2.

16

Figure JWL-3

IM Plugged In Summary of Benefits: Home Charging										
Year	1	2	3	4	5	6	7	8	9	10
Benefit To Participant	\$10 4	\$104	\$10 4	\$10 4	\$104	\$104	\$104	\$10 4	\$104	\$104
	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106
Benefit To All I&M Customers	\$108	\$108	\$108	\$108	\$108	\$108	\$108	\$108	\$108	\$108
Enrollment Incentive Cost	-\$500	-	-	-	-	-	-	-	-	-
Cumulative Total	-\$392	-\$284	-\$176	-\$68	\$40	\$148	\$256	\$364	\$472	\$579
TEN YEAR TOTAL BENEFIT T	TEN YEAR TOTAL BENEFIT TO ALL INDIANA MICHIGAN POWER CUSTOMERS:									\$579

the EIG program. I&M has also issued multiple communications encouraging
 participation in the program.

As stated on page 20 of my direct testimony, the EIG program in the Settlement Agreement in Cause No. 44967 included three components. The first component was for I&M to award \$220,000 in grants to the members of the Joint Municipal Group and the 39 North Conservancy District. I&M has distributed all funds associated with this component of the EIG.

The second and third components of the EIG make available \$480,000 for Qualifying Projects identified by the Joint Municipal Group, 39 North Conservancy District, and other eligible customers. These components of the program require action from the Joint Municipals and other eligible customers. I&M can only award grants when Qualifying Projects are identified and applications are submitted. Since July 1, 2018, I&M has received 2<u>1</u>0 applications and has approved 1<u>45</u> grants for a total of \$1<u>4952,567</u>.

As discussed previously, I&M is fully committed to pursuing quality economic development projects that meet all eligibility criteria. The eligibility criteria are specifically designed to ensure projects provide value to all I&M customers. I&M has proposed to continue the EIG program at \$137,500 per year. This amount is reasonable based on the level of applications I&M has received in the program to date.

Q. 39 North witness Cearley alleges in testimony (p. 12) that 39 North has
 received little support, delays in processing legitimate requests, or
 severely reduced funding for legitimate projects regarding the EIG

MATTHEW NOLLENBERGER REBUTTAL – 4 (Revised)

alternative class revenue allocation methodology after considering the
 results of his various recommended class cost of service studies.

- South Bend witness Seelye does not agree with I&M's proposed customer
 class revenue allocation, concluding (at 24) that I&M's proposal to
 eliminate 25% of inter-class subsidies "didn't go far enough in eliminating
 subsidies". Instead, Mr. Seelye recommends that 50% of subsidies be
 eliminated based on South Bend's proposed cost of service study. Mr.
 Seelye also disagrees with the Company's proposal that ensures that no
 tariff class receives a decrease in total revenues.
- Auburn witness Rutter (at 8-10) agrees in general that the Company has attempted to allocate revenues based on the principle of cost causation.
 However, Mr. Rutter disagrees that <u>the</u> Company has moved all classes closer to earning the class average rate of return (RoR). Mr. Rutter recommends a RoR for the Street Lighting (SL) class of 9.35% or the midpoint between the Company's proposed SL class RoR of 12.83% and the proposed class average RoR of 5.86%.
- CAC witness Wallach presents (at 15-16) what he describes as a
 "reasonable and fair approach" to allocate the base revenue increase
 among the customer classes based on his "Modified CCOSS".
 Specifically, Mr. Wallach's proposal would (1) maintain base revenues at
 current levels (i.e., no increase or decrease) for those classes where the
 class cost of service studies show a revenue decrease at an equalized

to request cost recovery. The requested rider simply provides timely financial
support for this significant capital investment and ensures that customer rates
ultimately reflect only the actual cost of the AMI deployment overtime. In addition,
our proposal provides the Commission and stakeholders with valuable periodic
updates on the progress of the deployment and associated cost.

6 Q. Please summarize the AMI Rider costs.

7 A. Figures AJW-2 and AJW-3 below provide a summary of the estimated capital

8 investment in total and specific to the Test Year, and the estimated annual O&M

9 included in the Test Year.

AMI Estimated Capital Investment Summary							
(Indiana Jurisdictional)							
(\$000s)							
	Test Year Total W				Witness		
AMI Meters & Communication Network	\$	10,777	\$	90,229	Isaacson		
AMI Software/Technology	\$	3,390	\$	3,390	Lucas		
Total =	\$	14,167	\$	93,619			

Figure AJW-2

Figure AJW-3

(Indiana Jurisdio	tion	al)	
(\$000s)			
	•	Test Year	Witness
AMI Meters & Communication Network ¹	\$	2,250,000	Isaacson
AMI Software/Technology	\$	160,722	Lucas
Customer Engagement	\$	329,940	Lucas
Total =	\$	2,410,722	

Indiana AMI Deployment

Estimated Annual Revenue Requirement

(\$000s)

Rate Base:	2020	2021	2022	Support Witness
AMI Meters & Communication Network	\$ 9,648	\$ 46,031	\$ 80,825	Isaacson
AMI Communication Network	\$ 1,129	\$ 5,374	\$ 9,404	Isaacson
Accumulated Depreciation ¹	\$ (469)	\$ (3,177)	\$ (9,346)	
AMI IT Software	\$ 3,390	\$ 3,390	\$ 3,390	Lucas
Accumulated Amortization ¹	\$ (339)	\$ (1,017)	\$ (1,695)	
Total Net Plant =	\$ 13,359	\$ 50,601	\$ 82,578	-

Revenue Requirement:	2020	2021	2022	Support Witness
Pre-tax Return on Rate Base ¹	\$ 460	\$ 2,222	\$ 4,635	
Meter Depreciation Expense ¹	\$ 447	\$ 2,581	\$ 5,880	
Network Depreciation Expense ¹	\$ 22	\$ 127	\$ 289	
IT Amortization Expense ¹	\$ 339	\$ 678	\$ 678	
Meter Deployment O&M	\$ 309	\$ 1,253	\$ 1,239	Isaacson
Software O&M	\$ 161	\$ 161	\$ 161	Lucas
Customer Engagement O&M	\$ 330	\$ 330	\$ 330	Lucas
Property Tax Expense	\$ -	\$ 99	\$ 381	
Gross Revenue Conversion Factor Costs	\$ 36	\$ 129	\$ 236	
Annual Revenue Requirement =	\$ 2,104	\$ 7,580	\$ 13,829	-

1 - calculated using a half year convention

Additional Information:

	Rates	Source	Witness
Pre-tax WACC =	7.34%	Exhibit A-7	Messner/Kelly
Meter Depreciation rate =	9.27%	Proposed rate (acct 370)	Cash
Network Depreciation rate =	3.91%	Proposed rate (acct 397)	Cash
IT Amortization rate =	20%	5 year period	
Property tax rate =	0.70%	Test Year forecast Rx	
GRCF rate =	1.7060%	6/30/2018 from WP-AJW-1	

potentially not representative during any future time period. As a result, consumables and allowances expenses should be tracked through the ECR.

3

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4 5

RESOURCE ADEQUACY RIDER (RAR) NON-FUEL PURCHASED POWER COST RECOVERY

Q. Does OUCC witness Lantrip (at 4-5) recommend the Commission approve I&M's request to continue tracking non-fuel purchased power costs through the RAR?

- 9 A. OUCC witness Lantrip's testimony supports these costs meet the Commission's
- 10 general criteria to support cost recovery through a tracker and presents Table 1
- 11 (Lantrip at 4) in support of his recommendation which demonstrates the volatility
- 12 or variability of these costs overtime. The OUCC also points out (at 5, lines 8-19)
- 13 that without a RAR customers may not have a mechanism to realize the benefits
- 14 of future capacity sales and recommends the RAR be used for such purposes.

15 Q. Has the Company included capacity sales revenues in a rider mechanism in

- 16 this proceeding?
- A. Yes, forecasted Test Year capacity sales revenues⁹ have been included in the
 OSS/PJM Rider.

Q. Is the Company agreeable to tracking future capacity sales revenue through the RAR?

A. Yes, the Company supports the RAR being used to track both capacity purchasesand sales.

⁹ \$6.4 million Total Company, see Company witness <u>Williamson's WP-AJW-3</u> Duncan's Attachment JCD- 1.

ANDREW CARLIN REBUTTAL - 18 (Revised)

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Figure JWL-3 provides a summary of the benefits to all I&M customers per residential and small commercial home charging participant, as provided in work paper JWL-1.

16

Figure JWL-3

IM Plugged In Summary of Benefits: Home Charging										
Year	1	2	3	4	5	6	7	8	9	10
Benefit To Participant	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106	\$106
Benefit To All I&M Customers	\$108	\$108	\$108	\$108	\$108	\$108	\$108	\$108	\$108	\$108
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Cumulative Total	-\$392	-\$284	-\$176	-\$68	\$40	\$148	\$256	\$364	\$472	\$579
TEN YEAR TOTAL BENEFIT TO ALL INDIANA MICHIGAN POWER CUSTOMERS:									\$579	

DAVID LUCAS REBUTTAL - 15 (Revised)

the EIG program. I&M has also issued multiple communications encouraging
 participation in the program.

As stated on page 20 of my direct testimony, the EIG program in the Settlement Agreement in Cause No. 44967 included three components. The first component was for I&M to award \$220,000 in grants to the members of the Joint Municipal Group and the 39 North Conservancy District. I&M has distributed all funds associated with this component of the EIG.

The second and third components of the EIG make available \$480,000 for Qualifying Projects identified by the Joint Municipal Group, 39 North Conservancy District, and other eligible customers. These components of the program require action from the Joint Municipals and other eligible customers. I&M can only award grants when Qualifying Projects are identified and applications are submitted. Since July 1, 2018, I&M has received 21 applications and has approved 14 grants for a total of \$149,567.

As discussed previously, I&M is fully committed to pursuing quality economic development projects that meet all eligibility criteria. The eligibility criteria are specifically designed to ensure projects provide value to all I&M customers. I&M has proposed to continue the EIG program at \$137,500 per year. This amount is reasonable based on the level of applications I&M has received in the program to date.

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MATTHEW NOLLENBERGER REBUTTAL – 4 (Revised)

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 eliminate 25% of inter-class subsidies "didn't go far enough in eliminating
 subsidies". Instead, Mr. Seelye recommends that 50% of subsidies be
 eliminated based on South Bend's proposed cost of service study. Mr.
 Seelye also disagrees with the Company's proposal that ensures that no
 tariff class receives a decrease in total revenues.
- Auburn witness Rutter (at 8-10) agrees in general that the Company has attempted to allocate revenues based on the principle of cost causation.
 However, Mr. Rutter disagrees that the Company has moved all classes closer to earning the class average rate of return (RoR). Mr. Rutter recommends a RoR for the Street Lighting (SL) class of 9.35% or the midpoint between the Company's proposed SL class RoR of 12.83% and the proposed class average RoR of 5.86%.
- CAC witness Wallach presents (at 15-16) what he describes as a
 "reasonable and fair approach" to allocate the base revenue increase
 among the customer classes based on his "Modified CCOSS".
 Specifically, Mr. Wallach's proposal would (1) maintain base revenues at
 current levels (i.e., no increase or decrease) for those classes where the
 class cost of service studies show a revenue decrease at an equalized

to request cost recovery. The requested rider simply provides timely financial
support for this significant capital investment and ensures that customer rates
ultimately reflect only the actual cost of the AMI deployment overtime. In addition,
our proposal provides the Commission and stakeholders with valuable periodic
updates on the progress of the deployment and associated cost.

6 Q. Please summarize the AMI Rider costs.

7 A. Figures AJW-2 and AJW-3 below provide a summary of the estimated capital

8 investment in total and specific to the Test Year, and the estimated annual O&M

9 included in the Test Year.

AMI Estimated Capital Investment Summary							
(Indiana Jurisdictional)							
(\$000s)							
	Test Year Total				Witness		
AMI Meters & Communication Network	\$	10,777	\$	90,229	Isaacson		
AMI Software/Technology	\$	3,390	\$	3,390	Lucas		
Total =	\$	14,167	\$	93,619			

Figure AJW-2

Figure AJW-3

AMI Estimated O&N (Indiana Jurisdic		•	
	-	Test Year	Witness
AMI Meters & Communication Network ¹	\$	2,250,000	Isaacson
AMI Software/Technology	\$	160,722	Lucas
Customer Engagement	\$	329,940	Lucas
Total =	\$	2,410,722	

Indiana AMI Deployment

Estimated Annual Revenue Requirement

(\$000s)

Rate Base:	2020	2021	2022	Support Witness
AMI Meters	\$ 9,648	\$ 46,031	\$ 80,825	Isaacson
AMI Communication Network	\$ 1,129	\$ 5,374	\$ 9,404	Isaacson
Accumulated Depreciation ¹	\$ (469)	\$ (3,177)	\$ (9,346)	
AMI IT Software	\$ 3,390	\$ 3,390	\$ 3,390	Lucas
Accumulated Amortization ¹	\$ (339)	\$ (1,017)	\$ (1,695)	
Total Net Plant =	\$ 13,359	\$ 50,601	\$ 82,578	_

Revenue Requirement:	2020	2021	2022	Support Witness
Pre-tax Return on Rate Base ¹	\$ 460	\$ 2,222	\$ 4,635	
Meter Depreciation Expense ¹	\$ 447	\$ 2,581	\$ 5,880	
Network Depreciation Expense ¹	\$ 22	\$ 127	\$ 289	
IT Amortization Expense ¹	\$ 339	\$ 678	\$ 678	
Meter Deployment O&M	\$ 309	\$ 1,253	\$ 1,239	Isaacson
Software O&M	\$ 161	\$ 161	\$ 161	Lucas
Customer Engagement O&M	\$ 330	\$ 330	\$ 330	Lucas
Property Tax Expense	\$ -	\$ 99	\$ 381	
Gross Revenue Conversion Factor Costs	\$ 36	\$ 129	\$ 236	
Annual Revenue Requirement =	\$ 2,104	\$ 7,580	\$ 13,829	-

1 - calculated using a half year convention

Additional Information:

	Rates	Source	Witness
Pre-tax WACC =	7.34%	Exhibit A-7	Messner/Kelly
Meter Depreciation rate =	9.27%	Proposed rate (acct 370)	Cash
Network Depreciation rate =	3.91%	Proposed rate (acct 397)	Cash
IT Amortization rate =	20%	5 year period	
Property tax rate =	0.70%	Test Year forecast Rx	
GRCF rate =	1.7060%	6/30/2018 from WP-AJW-1	

1		potentially not representative during any future time period. As a result,
2		consumables and allowances expenses should be tracked through the ECR.
3 4 5		RESOURCE ADEQUACY RIDER (RAR) NON-FUEL PURCHASED POWER COST RECOVERY
6	Q.	Does OUCC witness Lantrip (at 4-5) recommend the Commission approve
7		I&M's request to continue tracking non-fuel purchased power costs through
8		the RAR?
9	Α.	OUCC witness Lantrip's testimony supports these costs meet the Commission's
10		general criteria to support cost recovery through a tracker and presents Table 1
11		(Lantrip at 4) in support of his recommendation which demonstrates the volatility
12		or variability of these costs overtime. The OUCC also points out (at 5, lines 8-19)
13		that without a RAR customers may not have a mechanism to realize the benefits
14		of future capacity sales and recommends the RAR be used for such purposes.
15	Q.	Has the Company included capacity sales revenues in a rider mechanism in
16		this proceeding?
17	A.	Yes, forecasted Test Year capacity sales revenues9 have been included in the
18		OSS/PJM Rider.
19	Q.	Is the Company agreeable to tracking future capacity sales revenue through
20		the RAR?
21	Α.	Yes, the Company supports the RAR being used to track both capacity purchases
22		and sales.

⁹ \$6.4 million Total Company, see Company witness Williamson's WP-AJW-3.