STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF DUKE ENERGY INDIANA, LLC FOR (1) APPROVAL OF ITS PROPOSED PLAN FOR DEMAND SIDE MANAGEMENT AND ENERGY EFFICIENCY PROGRAMS FOR 2020 - 2023, (2) AUTHORITY TO RECOVER ALL PROGRAM COSTS, INCLUDING LOST REVENUES AND FINANCIAL INCENTIVES IN ACCORDANCE WITH IND. CODE §§ 8-1-8.5-3, 8-1-8.5-10, 8-1-2-42(a) AND PURSUANT TO 170 IAC 4-8-5 AND 170 IAC 4-8-6; (3) AUTHORITY TO DEFER ALL SUCH COSTS INCURRED UNTIL SUCH TIME THEY ARE REFLECTED IN RETAIL RATES; (4) REVISIONS TO STANDARD CONTRACT RIDER 66-A; AND (5) INTERIM AUTHORITY TO CONTINUE OFFERING ITS CURRENT DEMAND SIDE MANAGEMENT AND ENERGY EFFICIENCY PROGRAMS UNTIL A FINAL ORDER IS ISSUED IN THIS CAUSE	)	**CAUSE NO. 43955 DSM-8**

SUBMISSION OF EXCEPTIONS TO PROPOSED ORDER OF DEI

Citizens Action Coalition of Indiana, Inc. ("CAC"), respectfully submits the redline version of its Exceptions to Duke Energy Indiana's ("DEI") Proposed Order.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing was served by electronic mail or U.S. Mail, first class postage prepaid, this 15th day of October, 2020, to the following:

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Citizens Action Coalition

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INDIANA UTILITY REGULATORY COMMISSION

PETITION OF DUKE ENERGY INDIANA, LLC FOR (1) APPROVAL OF ITS PROPOSED PLAN FOR DEMAND SIDE MANAGEMENT AND ENERGY EFFICIENCY PROGRAMS FOR 2020 - 2023, (2) AUTHORITY TO RECOVER ALL PROGRAM COSTS, INCLUDING LOST REVENUES AND FINANCIAL INCENTIVES IN ACCORDANCE WITH IND. CODE §§ 8-1-8.5-3, 8-1-8.5-10, 8-1-2-42(a) AND PURSUANT TO 170 IAC 4-8-5 AND 170 IAC 4-8-6; (3) AUTHORITY TO DEFER ALL SUCH COSTS INCURRED UNTIL SUCH TIME THEY ARE REFLECTED IN RETAIL RATES; (4) REVISIONS TO STANDARD CONTRACT RIDER 66-A; AND (5) INTERIM AUTHORITY TO CONTINUE OFFERING ITS CURRENT DEMAND SIDE MANAGEMENT AND ENERGY EFFICIENCY PROGRAMS UNTIL A FINAL ORDER IS ISSUED IN THIS CAUSE	)	**CAUSE NO. 43955 DSM-8**

ORDER OF THE COMMISSION

Presiding Officers:
Sarah E. Freeman, Commissioner
Loraine L. Seyfried, Chief Administrative Law Judge

On November 8, 2019, Duke Energy Indiana, LLC ("Duke Energy Indiana" or "Company") filed its Petition as well as its Direct Testimony, Exhibits, and Workpapers with the Indiana Utility Regulatory Commission ("Commission") seeking approval of its 2020-2023 Energy Efficiency ("EE") Plan ("Plan"), pursuant to Ind. Code § 8-1-8.5-10 ("Section 10"). Also, on November 8, 2019, Petitioner filed its Motion for Administrative Notice, Motion for Protection of Confidential and Proprietary Information and Petitioner's Verified Motion on an Expedited Basis to Amend Order to Extend Plan for Interim Period, including the Verified Declaration of Timothy J. Duff.

On November 14, 2019, the Commission issued a Docket Entry amending the caption to this cause of action and scheduling the Prehearing Conference and Preliminary Hearing for December 18, 2019, in order to determine a procedural schedule and receive evidence regarding Petitioner's Motion for Interim relief pending this Commission's Final Order.

On November 21, 2019, the Commission issued a Docket Entry granting Petitioner's Motion for Protection of Confidential and Proprietary Information and Petitioner subsequently filed its confidential information.

On November 26, 2019, Petitioner submitted an Agreed Procedural Schedule on behalf of the Petitioner, the Indiana Office of Utility Consumer Counselor ("OUCC"), and the Citizens Action Coalition of Indiana, Inc. ("CAC"). On November 26, 2019, the CAC filed its Petition to Intervene in this proceeding. The Commission granted the Petition to Intervene on December 9, 2019.

On December 18, 2019, the Prehearing Conference and Preliminary Hearing took place with Petitioner, the OUCC, and CAC present. On December 27, 2019, the Commission issued its Prehearing Conference and Interim Order establishing an agreed to procedural schedule and setting the Evidentiary Hearing for April 16, 2020 and continuing as necessary on April 23, 2020. Said Order also outlined that, at the Prehearing Conference, Petitioner requested to withdraw its Motion for Administrative Notice, which was granted by the Presiding Officers. Petitioner was also authorized on an interim basis to continue offering its current DSM/EE programs and recovering the associated costs as approved in the Commission's December 28, 2017 Order in Cause No. 43955 DSM-4 ("DSM-4") until the Commission issues a Final Order in this Cause.

Petitioner submitted corrections to its case-in chief on February 17, 2020 (Corrected Petitioner's Exhibit 5-B). On March 2, 2020, the OUCC and CAC filed their case-in-chief Testimony and Exhibits and on March 9, 2020, the CAC submitted corrections to its Exhibit 2 and Attachment AS-2. On March 19, 2020, Petitioner filed its Rebuttal Testimony, Exhibits and Workpapers, along with a Motion for Administrative Notice of Scott Park's Rebuttal Testimony and Rebuttal Workpaper 1-SP filed in Cause No. 45253, which was subsequently granted on April 9, 2020. On March 24, 2020, Petitioner filed a Motion to Strike Portions of the Testimony of OUCC Witness John E. Haselden, which was subsequently denied. Also, on March 24, 2020, Petitioner filed the Corrected Rebuttal Testimony of Scott Park, Workpaper 1 (SP), Corrected Petitioner's Exhibit 3-A, and Corrected Confidential Petitioner's Exhibit 3-C. On September 1, 2020, the CAC filed Corrections to Ms. Sommer's direct testimony. On September 4, 2020, the CAC filed its Stipulation of Facts and Evidence between the CAC and Duke Energy Indiana. Also on that date, the Commission issued a Docket Entry setting the hearing as a WebEx hearing.

Due to the COVID-19 pandemic, the evidentiary hearing was subsequently continued twice and was held in this Cause on September 8, 2020, at 9:30 a.m. As no witnesses were required at the evidentiary hearing, the hearing was held virtually. At the hearing, the parties offered their respective pre-filed testimony, all of which were admitted into the evidentiary record, and the witnesses were subject to cross-examination. No members of the public appeared.

The Commission, having considered the evidence and applicable law, finds as follows:

1. Notice and Commission Jurisdiction. Notice of the hearing in this Cause was given and published as required by law. Petitioner is a "public utility" under Ind. Code § 8-1-2-1 and Ind. Code § 8-1-8.5-1, and an "electricity supplier" pursuant to Ind. Code § 8-1-8.5. Under Ind. Code §§ 8-1-2-4, -42, -68, -69, Ind. Code ch. 8-1-8.5, and 170 IAC 4-8, the Commission has jurisdiction over Petitioner's DSM and EE program offerings and associated cost recovery. Therefore, the Commission has jurisdiction over Petitioner and the subject matter of this proceeding.

2. Petitioner's Characteristics. Petitioner is a public utility corporation organized and existing under the laws of the State of Indiana with its principal office in Plainfield, Indiana, and is a second tier wholly owned subsidiary of Duke Energy Corporation. Petitioner is engaged in rendering electric utility service in the State of Indiana and owns, operates, manages, and controls, among other things, plants and equipment within the State of Indiana used for the production, transmission, delivery and furnishing of such service to the public, including the central, north central and southern parts of the State of Indiana. It also sells electric energy for resale to municipal utilities and to other public utilities that, in turn, supply electric utility service to numerous customers in areas not served directly by Petitioner.

3. Applicable Rules and Statutes. The Commission has developed a regulatory framework that allows a utility to meet long-term resource needs with both supply-side and demand-side resource options in a least-cost manner. With the enactment of Senate Enrolled Act 412 (2015), the State legislature put a greater emphasis on the consistency of utility-sponsored DSM plans with both the utility's Integrated Resource Plan ("IRP") and the Commission's analysis (as required in Ind. Code § 8-1-8.5-3). *See* I.C. § 8-1-8.5-10(j)(3). As part of its IRP, an electric utility must consider alternative methods of meeting future demand for electric service, including a comprehensive array of demand-side measures that provide an opportunity for all ratepayers to participate in DSM, including low income residential ratepayers. 170 IAC 4-7-6(b). The Commission adopted 170 IAC 4-8-1 *et seq*. providing guidelines for DSM cost recovery (the "DSM Rules"). A rulemaking involving both the DSM Rules and 170 IAC 4-7 *et seq*. (IRP Rules) is currently underway in IURC RM # 15-06. Although the IRP Rules are currently being revised again, the electricity suppliers, including Duke, voluntarily agreed to be subject to and participate under the October 2012 Strawman draft of the IRP Rules.

The IRP Rules, in the October 2012 Strawman form, require the utility to demonstrate that supply-side and demand-side resource alternatives have been evaluated on a consistent and comparable basis. 170 IAC 4-7-8(b)(3). The regulatory framework as contemplated for in the DSM Rules acknowledges the possibility of financial bias against DSM, recognizes the need to evaluate the extent of any bias, and provides ways for the Commission to eliminate any bias through adoption of cost recovery and incentive mechanisms designed to facilitate the use of DSM to meet the long-term resource needs of customers.

Ind. Code ch. 8-1-8.5, the statutory authority for the Commission's DSM Rules, establishes a least-cost standard for issuance of certificates of public convenience and need prior to construction of electric generation facilities and that "least-cost planning is an essential component of our Certificate of Need law." *In re Petition of Southern Indiana Gas & Electric Co.*, Cause No. 38738 at 5 (*Ind. Util. Reg. Comm'n*, October 25, 1989). We have previously defined "least-cost planning" as a "planning approach which will find the set of options most likely to provide utility services at the lowest cost once appropriate service and reliability levels are determined." *Id.* A public utility is thus "given *some* discretion to exercise its reasonable judgment in selecting the option or options to implement which minimize the cost of providing such service." *Petition of PSI Energy, Inc.*, Cause No. 39175, 1992 Ind. PUC LEXIS 251 at *14 (*Ind. Util. Reg. Comm'n*, May 13, 1992)(emphasis added).

Ind. Code § 8-1-8.5-9 ("Section 9"), which became law on March 27, 2014, provides that

certain customers may opt out of participating in an electric utility's energy efficiency program. It also provides for that "After December 31, 2014, an electricity supplier may offer a cost effective portfolio of energy efficiency programs to customers. An electricity supplier may submit a proposed energy efficiency program to the commission for review. If an electricity supplier submits a proposed energy efficiency program for review and the commission determines that the portfolio included in the proposed energy efficiency program is reasonable and cost effective, the electricity supplier may recover energy efficiency program costs in the same manner as energy efficiency program costs were recoverable under the DSM order issued by the commission on December 9, 2009." I.C. § 8-1-8.5-9(m).

Subsequently, in an effort to address what happened with Section 9, Ind. Code § 8-1-8.5-10 ("Section 10") became law on May 6, 2015. It provides that beginning not later than calendar year 2017, and not less than once every three years an electricity supplier shall petition the Commission for approval of a plan that includes energy efficiency goals, energy efficiency programs to achieve the energy efficiency goals, program budgets and program costs, and EM&V procedures that must include independent EM&V. I.C. § 8-1-8.5-10(h). It also provides the mechanism for the Commission to determine the overall reasonableness of the plan, outlining the items that the Commission must consider in making its determination:

(1) Projected changes in customer consumption of electricity resulting from the implementation of the plan;
(2) A cost and benefit analysis of the plan, including the likelihood of achieving the goals of the energy efficiency programs included in the plan;
(3) Whether the plan is consistent with the following: (a) The state energy analysis developed by the commission under section 3 of this chapter, and (b) the electricity supplier's most recent long range integrated resource plan submitted to the commission;
(4) The inclusion and unreasonableness of procedures to evaluate, measure, and verify the results of the energy efficiency programs included in the plan, including the alignment of the procedures with applicable environmental regulations, including federal regulations concerning credits for emission reductions;
(5) Any undue or unreasonable preference to any customer class resulting, or potentially resulting, from the implementation of an energy efficiency program or from the overall design of a plan;
(6) Comments provided by customers, customer representatives, the office of utility consumer counselor, and other stakeholders concerning the adequacy and reasonableness of the plan, including alternative or additional means to achieve energy efficiency in the electricity supplier's service territory;
(7) The effect, or potential effect, in both the long term and the short term, of the plan on the electric rates and bills of customers that participate in energy efficiency programs compared to the electric rates and bills of customers that do not participate in energy efficiency programs;
(8) The lost revenues and financial incentives associated with the plan and sought to be recovered or received by the electricity supplier;
(9) The electricity supplier's current integrated resource plan and the underlying resource assessment;
(10) Any other information the commission considers necessary.

I.C. § 8-1-8.5-10(j). After the Commission makes its determination, there are three possible outcomes:

(1) If the Commission determines an electricity supplier's plan is reasonable in its entirety, the Commission shall (a) approve the plan in its entirety; (b) allow the electricity supplier to recover all associated program costs on a timely basis through a periodic rate adjustment mechanism; and (c) allocate and assign costs associated with a program to the class or classes of customers that are eligible to participate in the program;

(2) If the Commission determines that an electricity supplier's plan is not reasonable because the costs associated with one or more programs included in the plan exceed the projected benefits of the program or programs, the Commission (a) may exclude the program or programs and approve the remainder of the plan; (b) shall allow the electricity supplier to recovery only those program costs associated with the portion of the plan approved on a timely basis through a periodic rate adjustment mechanism;

(3) If the Commission determines that an electricity supplier's plan is not reasonable in its entirety, the Commission shall issue an order setting forth the reasons supporting its determination. The electricity supplier shall submit a modified plan within a reasonable time. After notice and hearing, the Commission shall issue an order approving or denying the modified plan. If the Commission approves the modified plan, the Commission shall allow the electricity supplier to recover program costs associated with the modified plan on a timely basis through a periodic rate adjustment mechanism.

I.C. § 8-1-8.5-10(k)-(m). The statute also appears to carry over the principles from Section 9, including that the Commission may not require or consider whether an energy efficiency program to be implemented by a third party administrator (I.C. § 8-1-8.5-10(n)) and an industrial customer may opt out of an electricity supplier's plan. I.C. § 8-1-8.5-10(p)).

Section 10 also provides that if the Commission finds a plan submitted by an electricity supplier under subsection (h) to be reasonable, the Commission shall allow the electricity supplier to recover or receive the following: (1) Reasonable financial incentives that encourage implementation of cost effective energy efficiency programs, or eliminate or offset regulatory or financial bias against energy efficiency programs or in favor of supply side resources; and (3) Reasonable lost revenues. I.C. § 8-1-8.5-10(o). Section 10 also requires the Commission to adopt rules under I.C. 4-22-2 or guidelines. A rulemaking for the IRP Rules and DSM Rules is currently underway in RM # 15-06.

It is against the backdrop of this that we consider the DSM programs and ratemaking proposals made by Duke in this Cause.

~~3~~4. **Requested Relief.** Duke Energy Indiana ("DEI") requests approval of its 2020-2023 EE Plan, a four-year plan rather than a three-year plan despite DEI's pending new Market Potential Study collaborative process with a due date of February 2021 and DEI's new 2021 IRP

due in November 2021. The Plan does not differ materially from the Plan approved in DSM-4 and includes EE goals, a portfolio of programs to meet those goals, program budgets and costs, and independent evaluation, measurement, and verification ("EM&V") procedures that meet the requirements of Section 10 and Commission rules. DEI argues ~~The~~ the Plan presented in this filing is consistent with Petitioner's most recently submitted IRP, the 2018 IRP.

The Plan presented in this Cause is designed to achieve energy savings by an average of approximately 1.18% of eligible retail sales each year over the four-year Plan. The targeted energy reductions planned to be achieved are as follows:

Duke Energy Indiana Projected Energy Savings (MWh Gross Savings @Plant)				
	2020	**2021**	**2022**	**2023**
Total	203,310	207,105	214,947	213,247

The Plan proposes programs offered to all customer classes and includes low–income programs and programs deployed in the past, as well as, new and modified programs. Petitioner estimates that its program budgets are approximately $147,249,627 for the four-year Plan, including direct and indirect costs, customer incentives and independent EM&V. Additionally, Petitioner requests a financial incentive for all cost-effective programs except low-income weatherization and lost revenues for the life of the measure, as discussed in the direct testimony of its witnesses. EM&V for the Plan will be conducted by independent third parties. The total program costs are presented in the direct testimony of Timothy J. Duff.

Petitioner seeks no modifications to its oversight board ("OSB") authority. CAC has requested to change its status as a non-voting member to a voting member on DEI's OSB.

In this proceeding filed under Section 10, Duke Energy Indiana seeks approval of a comprehensive portfolio of EE programs for all eligible participants. CAC and OUCC raised several concerns about certain programs in particular. Petitioner also requests accounting and ratemaking authority to recover associated program costs, including lost revenues and financial incentives. Duke Energy Indiana also requests authority to adjust Rider 66 accordingly and for continued authority to use deferred accounting on an ongoing basis until such costs are reflected in retail rates to ensure proper matching of expenses with the rate recovery of such expenses through Rider 66.

~~4~~5. Evidence.

A. Petitioner's Case-in-Chief. Petitioner presented the testimony of six (6) witnesses in its case-in-chief: Mr. Timothy J. Duff, General Manager, Customer Solutions,

Portfolio Analysis and Regulatory Strategy (entered into evidence as Petitioner's Exhibit 1); Ms. Amy B. Dean, Senior Strategy and Collaboration Manager (entered into evidence as Petitioner's Exhibit 2); Mr. Scott Park, Director, IRP & Analytics-Midwest (entered into evidence as Petitioner's Exhibit 3 as Corrected and Corrected Petitioner's Exhibit 3C); Ms. Jean P. Williams, Manager, DSM Analytics (entered into evidence as Petitioner's Exhibit 4); Ms. Karen K. Holbrook, Director Portfolio Regulatory Strategy and Support (entered into evidence as Petitioner's Exhibit 5 as Corrected and Petitioner's Exhibit 5C); and Ms. Kathryn C. Lilly, Rates & Regulatory Strategy Manager (entered into evidence as Petitioner's Exhibit 6).

Mr. Duff provided an overview of the EE Plan that Petitioner is presenting for approval in this proceeding. He sponsored Petitioner's Exhibit 1-A, which provides a summary of how the Company's EE Plan addresses the factors under consideration as set forth in Ind. Code 8-1-8.5-10(j).

Mr. Duff testified that Petitioner is seeking approval of a four-year plan that includes 2020-2023. He stated that the EE Plan includes goals, programs, program budgets and costs, and evaluation, measurement and verification ("EM&V") procedures.

Mr. Duff testified that its program managers designed the EE Plan, taking into consideration the information from the Market Potential Study ("MPS"), performed by Nexant, the state of EE in Duke Energy Indian a's service territory, past program performance and new programs. He stated that the program managers designed the program portfolio to be consistent with Duke Energy Indiana's most recent Integrated Resource Plan ("IRP"), which was submitted to the Commission on July 1, 2019. The IRP is discussed in greater detail in Mr. Park's testimony.

Mr. Duff explained that Duke Energy Indiana is seeking approval of a four-year plan to better align with the Company's IRP schedule. He stated that when this EE Plan expires at the end of 2023, Duke Energy Indiana will have completed and submitted its next IRP and vetted it with interested shareholders and Commission staff. Mr. Duff testified that the approval of a four-year plan will also mitigate the need to seek interim authority to continue its programs, as was sought and approved in this proceeding.

Mr. Duff presented annual goals for its proposed EE Plan as follows:

2020	203,310
2021	207,105
2022	214,947
2023	213,247

He stated his belief that Petitioner can reasonably achieve these goals, even accounting for 90% opt out of eligible non-residential load.

Mr. Duff testified that Petitioner is seeking to recover program costs, including direct and indirect costs, the cost of EM&V, lost revenues, and a financial incentive through its Rider 66, which is reconciled annually. Those total costs for Petitioner's 2020-2023 Plan is $197,135,234, which is broken down as follows:

Duke Energy Indiana	
Cost Category	**2020 - 2023 Revenue Requirement**
Program Cost	$ 147,249,627
Shared Savings	21,087,319
Lost Revenues	28,798,288
Total	**$ 197,135,234**

Mr. Duff testified that Petitioner is seeking to recover lost revenue cost recovery for the life of the measure, consistent with the Commission's prior approval in DSM-4. Mr. Duff further testified that Petitioner's proposal for lost revenues is consistent with Ind. Code § 8-1-8.5-10(o)(2), which states that if the Commission finds Petitioner's Plan to be reasonable, then the Commission must approve recovery of reasonable lost revenues. Mr. Duff stated that Petitioner's proposal for lost revenue recovery for life of measure (or until the next base rate case, if earlier) is reasonable because it matches the period over which Petitioner will experience a deficit in fixed cost recovery due to the savings from the energy efficiency programs.

Mr. Duff explained how the Company's pending rate case impacted the magnitude of the lost revenue recovery by resetting the sales numbers, which reflect the energy savings associated with the Company's energy efficiency programs. This is discussed in greater detail in Ms. Holbrook's direct testimony. He stated that if Petitioner's decoupling proposal is approved in its pending rate case, the Company will no longer need to recover lost revenues from its energy efficiency programs.

Mr. Duff testified that the Company is seeking the approval for the same performance incentive approved in DSM-4 with the exception that the Company is seeking a modified performance incentive for its Low-Income Neighborhood program. He testified that the currently approved shared savings performance incentive effectively encourages Duke Energy Indiana to minimize portfolio costs while striving to achieve as much energy efficiency as is reasonably possible. The Company seeks approval of the following performance incentive:

Performance Incentive (Shared Savings)	
Achievement Level (KWH)	**Incentive Level (% of NPV of UCT net benefits)**
110% or more	**10%**
100-109.99 %	**8%**
90-99.99 %	**7%**
80-89.99 %	**6%**
75-79.99 %	**5%**

0-74.99 %	**0%**

Mr. Duff testified that Petitioner seeks to earn an incentive on its Low-income Neighborhood program. Although Petitioner has offered this program without an incentive in the past and it does not pass the Utility Cost Test ("UCT"), Mr. Duff testified that the program provides much needed energy efficiency and bill relief in neighborhoods with customers who need it most. Mr. Duff proposed a modified performance incentive that would use the same tiers as the rest of the portfolio, but that it would apply the sharing percentage to the NPV of the avoided costs, as opposed to the UCT net benefit. Mr. Duff testified that, if approved, the Low-Income Neighborhood program proposed incentive would be less than $119,000 over the 4-year EE Plan period.

Mr. Duff testified that Petitioner's EE Plan as presented meets the requirements of Section 10. Mr. Duff further testified that Petitioner is proposing an EE Plan that includes EE goals that are reasonably achievable, consistent with its 2018 IRP, and designed to save 1.18% of eligible retail sales each year over the EE Plan period. Additionally, Petitioner is an electricity supplier and it is proposing an EE Plan to implement EE improvements. The EE Plan includes program budgets and costs, including the direct and indirect costs of EE programs, the costs associated with EM&V program results, and the recovery of lost revenues and a performance (financial) incentive. The EE Plan also includes independent EM&V for the programs, pursuant to Ind. Code § 8-1-8.5-10(j)(4).

Mr. Duff also testified that Petitioner has provided a copy of the Petition and Plan to the OUCC as required by I.C. § 8-1-8.5-10(i)(1) and has posted an electronic copy of the Petition and Plan on Petitioner's website as required under I.C. 8-1-8.5-10(i)(2).

In conclusion, Mr. Duff testified that Petitioner's 2020-2023 EE Plan is in the public interest and is consistent with the IRP submitted to the Commission in July 2019, and as a result, is designed to lower emissions and delay the need to build additional generation in Petitioner's service territory into the future. The EE Plan reflects cost-effective portfolio DSM programs, which can assist customers to manager their energy bills and act as a resource for meeting Petitioner's future generation requirements.

Ms. Amy Dean provided a narrative of the programs and budgets for the EE Plan. She prepared Petitioner's Exhibit 2-A, attached to her testimony, that described each program the Company is proposing to include in its portfolio to her testimony.

Ms. Dean testified that the Company is proposing the following programs and budgets to be approved in this proceeding, including EM&V:

Duke Energy Indiana 2020 - 2023 Energy Efficiency Programs *

Residential		
Agency Assistance Portal	$	128,925
Energy Efficiency Education Program for Schools	$	3,421,567
Low Income Neighborhood	$	2,702,836
Low Income Weatherization	$	6,409,068
Multi-Family EE Products & Services	$	8,888,181
MyHome Energy Report	$	12,216,932
Residential Energy Assessments	$	5,821,479
Smart $aver® Residential	$	18,539,694
Power Manager	$	11,195,414
Total Residential	**$**	**69,324,096**
Non-Residential		
Public Efficiency Streetlighting	$	2,242,460
Smart $aver Non-Residential	$	53,248,383
Power Manager for Business	$	6,967,667
Small Business Energy Saver	$	15,192,022
Total Non-Residential	**$**	**77,650,532**
Market Potential Study	$	275,000
Total Market Potential Study	**$**	**275,000**
Grand Total 2020-2023 Portfolio	**$**	**147,249,627**

* Totals may not foot due to rounding

Ms. Dean stated that the proposed portfolio contains most of the same programs as approved in DSM-4, except for the Public Efficiency Streetlighting program, which is a new program. She explained that the Public Efficiency Streetlighting program will provide outdoor lighting customers an incentive to upgrade Company-owned lighting to more efficient LED fixtures. Ms. Dean testified that this program is targeted to a subset of customers who have been participating in the EE Rider, but had no targeted program offerings.

Ms. Dean testified that the Order in DSM-4 approved programs that were under development at the time and were proposed to launch during the DSM-4 EE Plan period. She stated that these programs were never offered to customers and some measures from these programs are being rolled into existing programs for this filing.

Ms. Dean testified that the Company's proposed portfolio includes two demand response programs. These programs, Power Manager for Residential customers and Power Manager for Business for its commercial customers, are a continuation of the portfolio approved in DSM-4.

Ms. Dean testified that all programs pass at least one of the cost benefit analyses, as discussed in greater detail in Ms. Williams direct testimony. She stated that all programs passed the Utility Cost Test ("UCT") except the Low-Income Neighborhood and Low-Income Weatherization programs, both of which pass the Participant Cost Test ("PCT"). Ms. Dean testified that the Low-Income Neighborhood Program provides 14 low-cost measures to be installed in selected neighborhoods. As to the Low-Income Weatherization program, Ms. Dean testified that the program includes up to $750 for health and safety measures for qualifying customers and that it includes a refrigerator replacement component. Ms. Dean testified that the remaining programs pass the UCT but may have measures within the program that do not pass the UCT.

Ms. Dean testified that the Company is seeking approval for recovery of $275,000 for a market potential study to inform the upcoming IRP and the next EE Plan filing. She stated the Duke Energy Indiana will work with its OSB on the Request for Proposals and to oversee the work product.

Ms. Dean testified that the total program costs that the Company seeks to recover for this EE Plan is $197,135,234. This amount includes direct and indirect administrative support, customer incentives, EM&V, the Company's performance incentive and lost revenues for the 4 years of the program. Ms. Dean further testified that Petitioner is maintaining its OSB and is not seeking to make any changes.

Mr. Park testified that the 2018 IRP modeled energy efficiency as bundles of energy savings, similar to how EE was modeled in the 2015 IRP. He explained that the 2018 IRP had seventy bundles of EE grouped by shape and time period. Mr. Park testified that the EE bundles were input to System Optimizer, which would then select a set of EE bundles depending on the scenario that was modeled. Mr. Park stated that for 2018-2020, the IRP model was required to select base bundles that represent the 2017-2019 portfolio approved in DSM-4.

Mr. Park explained changes that were made to the portfolio to reflect updated EM&V for Petitioner's My Home Energy program. He testified that the Low-Income Programs were not economically selected in the IRP modeling, but were appended to the EE portfolio filing.

Mr. Park testified that the Preferred Portfolio selected the following annual amounts of energy efficiency in terms of energy, demand, and costs in the 2018 IRP and the proposed EE Plan:

Incremental 2020-23	2020	2021	2022	2023
IRP MWh	156,757	157,314	160,220	164,447
Filing MWh	182,706	186,417	193,011	191,415
IRP MW	27	30	31	32
Filing MW	25	24	24	25
IRP Program Costs ($MM)	$ 36.69	$ 37.11	$ 38.68	$ 40.86
Filing Program Costs ($MM)	$ 36.27	$ 36.25	$ 36.93	$ 37.09

He stated that the values are shown as Net of Free Riders because the EE forecast used in the IRP is required to be analyzed on a Net of Free Riders basis.

Mr. Park testified that it was his opinion that the proposed EE Plan is reasonable and consistent with the 2018 IRP. Mr. Park stated that this consistency can be seen on a MWh, a MW and cost basis. Mr. Park also testified that the proposed Plan is within the boundaries of the EE from the optimized portfolios of 5 different scenarios that considered different amounts of load, fuel and power prices, as well as, 3 different levels of carbon regulation.

Mr. Park further testified that it was his opinion that the proposed EE Plan is consistent with the State Energy Analysis developed by the Commission under I.C. 8-1-8.5-3.[1] He stated that Petitioner provided SUFG information regarding its DSM/EE programs and performance levels, which are reflected in the state energy analysis.

Ms. Williams described the cost-effectiveness of Petitioner's Plan, as well as, provided the EM&V procedures Petitioner currently uses and will continue to use upon approval of its EE Plan, how the EM&V procedures comply with Indiana statutes and rules, the effect the EE Plan will have in the long-term and short-term on electric rates and bills, and how EM&V is applied to ratemaking.

Ms. Williams testified that Petitioner evaluates the cost-effectiveness of EE programs using the tests specified in the California Standard Practice Manual and presented the cost-effectiveness tests scores for: the PCT, the UCT, the TRC, and the RIM Test. She presented a table that showed the cost effectiveness scores for each program. Ms. Williams testified that all programs in the Plan are cost effective as required by Ind. Code § 8-1-8.5-10(j)(2) as all programs passed the UCT and TRC Tests, with the exception of the Low-Income Weatherization and Low-Income Neighborhood programs. All the programs, including the low-income programs, pass the Participant Tests.

Ms. Williams identified the types of evaluations utilized by Duke Energy Indiana as approved in Cause No. 43955 DSM-4 and employed since that time. She testified that evaluation studies will be performed by independent and qualified evaluation professionals and will include

[1] *Available at:* https://www.in.gov/iurc/files/2018%20Report%20on%20the%20Statewide%20Analysis%20of%20Future%20Resource%20Requirements%20for%20Electricity.pdf

various methods reviewed within the International Performance Measurement and Verification Protocol Committee, January 2012, the Indiana Evaluation Framework (Indiana Demand Side Management Coordination Committee, February 2013), the Uniform Methods Project Model Protocols (National Renewable Energy Laboratory, April 2013 - January 2015), and National Action Plan for Energy Efficiency Model Energy Efficiency Program Impact Evaluation Guide (Prepared by Steven R. Schiller, Schiller Consulting, Inc., November 2007). Ms. Williams sponsored Petitioner's Exhibit 4-A which provided an initial design for the EM&V analysis for the proposed EE programs, as well as, provides procedures for each program to address the Commission's rule on the utility's evaluation procedures. The timeframe for EM&V was presented in Petitioner's Exhibit 4-B. Ms. Williams further testified that with all the steps addressed in her Exhibits, she believes the Company has fully satisfied the Commission's rules on EM&V.

Ms. Williams testified that the estimated cost for all EM&V over the four year portfolio period is $5,794,025, which is approximately 3.9% of total costs and that the Company would work diligently to manage evaluation costs as the portfolio is implemented according to the timeframe for EM&V presented in Petitioner's Exhibit 4-B.

Ms. Williams testified that Duke Energy Indiana has conducted an analysis on the long-term and short-term effect on customer bills as required by Ind. Code § 8-1-8.5-10(j)(7). She stated that the effect on rates and bills of participants are demonstrated through the Participant Test, which compares the benefits to the participant through bill savings plus incentives from the utility relative to the incremental costs to the participant for implementing the EE measure. Ms. Williams stated that the long-term effect on rates and bills of non-participants are demonstrated through the RIM Test. If a program's RIM Test score is lower than one, it indicates that rates would likely increase over time, whereas the UCT indicates whether revenues would increase more if the programs were not implemented and hence require increases in rates. Ms. Williams testified that because all of the programs, except Low Income Weatherization and Low-Income Neighborhood programs, pass the UCT, one can conclude that all customers would benefit in the long-term from implementation of the EE programs.

Ms. Williams testified that the EM&V results will be utilized in developing a true-up for the proposed Rider and that the Company will then use the actual participation information and ex-post load impacts as the basis for retrospective true-ups of estimated lost revenues for the proposed EE Rider. The Company will also use the ex-post load impacts prospectively to calculate the shareholder incentive, as described in the Settlement approved by the Commission in DSM-1.

In conclusion, Ms. Williams testified that the programs being offered were cost effective, that the Company has a reasonable plan for EM&V, and the Company has met all requirements under Indiana Law and Commission rules for cost effectiveness and EM&V.

Ms. Holbrook testified as to the various calculations performed for this filing and the processes and sources used to develop actual and projected costs of providing EE programs for 2020-2023. Ms. Holbrook also testified that she sponsored Petitioner's Confidential Exhibit 5-A, which shows a summary of forecasted performance by program, including total requested revenue requirements by year, and Exhibit 5-B, which shows the full impact of lost revenues associated

with the program performance forecasted through the life of the measure, assuming no impacts from rate cases.

Ms. Holbrook testified that her organization calculated the Company's incentive at a level that reflects achievement at 100% of target across the entire portfolio. This results in an 8% shared savings incentive for all programs eligible for a shared savings performance incentive. She prepared an exhibit (Petitioner's Confidential Exhibit 5-A), which presented the forecasted incentive amounts at the 100% target achievement level for the portfolio for each program year, as well as each program's contribution toward the portfolio incentive amount. This financial incentive was added to the program costs and EM&V for all programs eligible for financial incentives to calculate the input to the revenue requirement provided to Ms. Lilly to calculate the rate applicable to 2020.

Ms. Holbrook testified that Duke Energy Indiana is proposing that all programs are eligible for the incentive, with the exception of Low-Income Weatherization. In Ms. Holbrook's Exhibits, the Low-Income Neighborhood program, which has typically not been eligible for an incentive, is shown with zero incentive. As Mr. Timothy J. Duff discussed, it is Duke Energy Indiana's proposal that this program be eligible for an incentive in this portfolio. If approved, the Company proposes that the incentive for the Low-Income Neighborhood program would be calculated as a percentage of avoided costs and would be collected at the time of the 2020 reconciliation filing. Additionally, costs for the 2021 Market Potential Study, as discussed in Ms. Amy B. Dean's Testimony, were added to the portfolio with no incentive included.

Ms. Holbrook further testified as to how the 2020-2023 lost revenues were calculated prior to any adjustments for the rate case. As to the pending rate case, she testified that the Company used projected sales for 2020 in developing the new base rates. The projected sales included a monthly forecast of EE reductions in 2020, as well as a forecast of year end 2019 reductions. Her testimony described the adjustments that were made.

Ms. Holbrook testified that, as a simplifying assumption for the calculations, the Company assumed January 1, 2020, as the effective date for the application of new base rates, even though the company realizes that the effective date will be some time after that date. The impact of the later effective date will be reflected in the 2020 reconciliation filing.

Ms. Holbrook prepared Exhibit 5-B to show the estimates of the impact of the lost revenues requested in this proceeding beyond the four-year period. This assumes a scenario with no future rate cases that reset these vintages to zero. Ms. Holbrook concluded her testimony by testifying that these cost estimates were given to Ms. Lilly for her calculations and that Ms. Holbrook believes these calculations are reasonable.

Ms. Lilly presented testimony on proposed rates in this proceeding under the Company's Standard Contract Rider No. 66, EE Adjustment ("EE Rider" or "Rider"), which the Company proposes to continue to use. She also sponsored the updated Tariffs for Commission approval. Ms. Lilly explained that she calculated rates based on the following:

- The 2018 reconciliation, re-reconciliation based on the application of EM&V to

lost revenues, and adjustment for program costs that has been outlined in the Company's case-in-chief in DSM-7; and

- Forecasted costs for calendar year 2020, as proposed in the Company's 2020–2023 EE Plan in this proceeding.

Ms. Lilly testified that as approved in the Commission's Order in Cause No. 43955 ("EE Order") and subsequent Orders in Cause Nos. 43955, 43079, and 44441 ("Opt Out Order"), (collectively, the Company's EE Orders), all customers and rate classes are charged for the cost of a vintage year's EE programs to the extent they are or were eligible to participate in the programs offered for that period. She explained that costs for a vintage year's programs may extend beyond that vintage year or the time customers were eligible to participate in the programs, such as in the case of persisting lost revenues or for costs of EM&V performed in a subsequent year for a prior vintage year's programs.

Ms. Lilly testified that since the enactment of SEA 340 in 2014, codified at Ind. Code § 8-1-8.5-9, the Company has received opt-out notifications from customers in all opt-out windows and opt-in notices in four (4) windows. Ms. Lilly provided the Tariff rates for each of these opt-out groups. Ms. Lilly also presented rates that the Company had developed for those customers who would opt out as part of the November 15, 2019 window, with the opt out to be effective January 1, 2020, by removing 2020 program costs and associated lost revenues and incentives from the costs assigned to participating customers.

Ms. Lilly explained that consistent with the requirements of I.C. § 8-1-8.5-9(f), a customer who opts out remains responsible for EE program costs, including lost revenues, financial incentives and related reconciliations, that accrued or were incurred or relate to EE investments made before the date on which the opt out is effective, regardless of the date on which the rates are actually assessed. Ms. Lilly further explained that these groups will continue to be responsible in future years for their proportionate share of reconciliations and persisting lost revenues related to their respective opt-out date.

Ms. Lilly testified that, as approved by the Commission in DSM-1, DSM-2, DSM-4, DSM-5, and DSM-6, the lost revenues associated with the 2012–2015, and 2017-2019 program years will be included in EE Rider rates until the measure life has expired for the individual programs or until rates are effective from a base rate case. She testified that, as approved by the Commission in DSM-3, the lost revenues associated with the 2016 program year will be included in EE Rider rates for the lesser of four years or measure life, or until rates are effective from a base rate case. Additionally, as approved in DSM-1, the lost revenues for these years are also subject to additional reconciliations in future years due to retrospective application of EM&V. Any qualifying customers new to Petitioner's system who sign a demand contract of more than one megawatt and provide notice of opt out under the terms of the Tariff will not be responsible for any EE Rider costs (*i.e.*, will have a zero-tariff rate).

Ms. Lilly explained the calculation of the rates proposed for the 2020 program year using the actual program costs, EM&V costs, lost revenues and incentive amounts for 2018; updated lost revenue amounts for the re-reconciliation of 2015, 2016, and 2017; adjustments applicable to 2014 and 2015 opt-out groups; and estimated program costs, EM&V costs, and incentive amounts for

2020 using the 2020 data from the 2020-2023 EE Plan proposed in this filing as provided by Ms. Holbrook. Ms. Lilly sponsored Petitioner's Exhibit 6-A, which was an update of Duke Energy Indiana's Standard Contract Rider No. 66, EE Adjustment to be effective for billing after Commission approval, as well as Exhibit 6-B, which is a series of schedules developing the rates that are presented for Commission approval in this proceeding. Ms. Lilly testified that she calculated separate reconciliation amounts for participating and opted out customers and presented the amounts in her testimony.

Ms. Lilly testified as to how and when the Rider 66 amount currently being billed will be reconciled to actual costs. As she explained, in the next EE Rider filing planned for 2020, developing rates for 2021 that will be effective with the first billing cycle for 2021 or upon Commission approval, Petitioner plans to reconcile 2019 EE actual costs and lost revenues approved in DSM-6 to amounts billed for the Rider 66-A during calendar year 2019. The reconciliation is expected to include a true-up of 2019 lost revenues based on 2019 actual participation in the EE programs and the retrospective application of the results of applicable EM&V. It will also reflect additional true ups of any prior reconciliations to reflect the results of additional EM&V reports on the calculation of lost revenues. Ms. Lilly further testified that the estimated costs and impacts used to develop the 2020 rates proposed in this filing are expected to be reconciled in the Rider 66 filing planned for mid-2021, developing rates to be billed in 2022, using actual participation and applicable EM&V.

Ms. Lilly explained the method used to determine the prices or lost revenue pricing rates to develop the amount of actual lost revenues in this filing. Ms. Lilly testified that, as approved by the Commission in its EE Order, recovery of lost revenues is intended to allow recovery of fixed costs that will otherwise not be recovered because of the reduction in sales associated with its EE offerings. In this filing, the Company used lost revenue pricing rates (*i.e.*, rates reflecting fixed costs embedded in base rates) that were developed for each rate schedule in the Residential and Non-Residential rate groups that had identified participation. In a few cases where rate schedule level data was not available, average lost revenue pricing rates were developed using rate schedules most likely to be applicable to customers served by the programs.

Support for the determination of the lost revenue pricing rates used in this filing was filed with Ms. Lilly's Workpapers in this proceeding. The source of the fuel and other variable O&M adjustments was the Company's cost of service study approved in Cause No. 42359, and the source of the revenue and kWh data was the Company's billing system. The Company has used the same lost revenue prices as were used in the 43955 DSM-6 filing. These prices reflect the lower federal income tax rate of twenty-one percent (21%) that resulted from the Tax Act. The same general methodology using the applicable data was used to develop the lost revenue pricing used in determining 2015 thru 2018 lost revenues, support for which was filed in 43955 DSM-3 through DSM-6.

Ms. Lilly testified that the lost revenue rates developed and provided to Ms. Holbrook would change at the time new base rates are approved to reflect the fixed charges embedded in the newly approved base rates. Ms. Lilly further testified that the Company is seeking to recover lost revenues for the life of the measure.

Ms. Lilly concluded her testimony by testifying that the Company intends to continue using the deferral accounting treatment approved in Cause No. 43955 to minimize the timing difference between cost or revenue recognition in the Company's books and actual cost recovery.

B. OUCC's Case-in-Chief. The OUCC presented the testimony of two (2) witnesses in its case-in-chief: Mr. John E. Haselden, Senior Utility Analyst in the Electric Division of the Indiana OUCC (entered into evidence as Public's Exhibit 1 and 1C) and Mr. Caleb R. Loveman, Utility Analyst in the Electric Division of the Indiana OUCC (entered into evidence as Public's Exhibit 2).

Commented [J1]: CAC adopts the OUCC's prepared summaries of its own witnesses' case-in-chief.

At the outset, Mr. Haselden complained that Petitioner failed to adequately explain and support its request in this proceeding. He stated that Petitioner made programmatic changes without explanation and concluded that the Company focused on changes to increase shareholder incentives. He stated his opinion that the numbers underlying Petitioner's shareholder incentive and lost revenues are based on incorrect calculations and overstated assumptions.

Mr. Haselden raised several concerns with Petitioner's proposed programs. He compared Petitioner's proposed Plan to its last approved Plan and testified that Petitioner's Plan has significantly decreased the amount of general service lighting ("GSL") LED light bulbs offered through the Residential Smart $aver program and increased the amount of LED GSL bulbs in other programs such as Multifamily Energy Efficiency Products and Services and Residential Energy Assessments programs. He stated that the latter programs yield a much higher shareholder incentive and that the Company provided no justification for the change.

Mr. Haselden discussed various changes from the EE plan approved in DSM-4 and the pending proposal. He stated the Company proposes budget increases for the Smart $aver Non-Residential Incentive, Multifamily Energy Efficiency Products and Services, Residential Energy Assessments, and Smart-Saver Non-Residential Incentive programs, while proposing budget decreases for Residential Smart Saver program. Mr. Haselden testified that the Agency Assistance Portal program will cease providing packages of LED light bulbs to qualifying customers after 2020 and that the Energy Efficiency Education program will replace GSL A-Line LED bulbs with specialty LED bulbs in kits after June 30, 2020. He also explained that there are changes to the lighting component of the Residential Smart Saver program.

Mr. Haselden testified that the OUCC is concerned with the cost-effectiveness of Petitioner's programs, including the inputs used to calculate shareholder incentives and the continued use of the halogen lighting as the baseline for GSL LED lighting measures. Mr. Haselden stated that Petitioner's proposed shareholder incentive was disproportionately larger than the other investor-owned electric utilities and presented a table for comparison purposes.

Mr. Haselden testified that Petitioner has individual cost and impact studies it assigns for a large number of measures and he presented Appendix B to his testimony, which discussed problems with the following: the Company's Non-residential LED GSL; Portable desk lamp; School Kits; and GSL LED lighting baseline. Mr. Haselden stated that the OUCC recommends an independent review of the impact assumptions Petitioner uses in its DSMore and Utilities International software programs. He recommended denial of the proposed programs until the

measure impact assumptions are reviewed by an independent third party and the benefit/cost tests are calculated using correct avoided cost estimates.

Mr. Haselden testified that the OUCC also has concerns with Petitioner's proposed non-residential programs, because technologies are increasing and costs are decreasing. He stated that customer incentive levels need to be monitored more closely to minimize free ridership and any impacts on cost-effectiveness. Unlike other utilities, Petitioner does not evaluate all programs on an annual basis. He stated that the OUCC recommends continued diligence in administering the non-residential programs and more frequent re-evaluation measures when prices and efficiencies change significantly.

Mr. Haselden testified that the appropriate economic level of DSM is determined in the IRP process when programs are grouped into incremental bundles and modeled as resources that can be selected in the IRP modeling process. He stated that various levels of DSM impacts and costs are modeled in conjunction with supply-side resources to find the most economic combination over the planning period. These analyses are distilled down to net present value of revenue requirements ("NPVRR") necessary over various scenarios and sensitivities. In the course of IRP modeling, DSM resources may be selected to the extent they contribute to a lower NPVRR.

Mr. Haselden testified that there are generally two sources of value derived from DSM programs: the variable production cost of energy that is avoided by the amount of energy the programs save, and the savings in delaying or reducing investment in additional capacity resources to the extent DSM programs cumulatively represent a reduction in supply side capacity requirements. As to the delayed investment in additional capacity resources, Mr. Haselden stated his opinion that this value is dependent on the timing of the need for additional capacity resources. He stated that capacity values for DSM resources are acquired and paid for over longer periods than supply-side alternatives because the rate at which savings are cumulatively realized through DSM is generally slower and smaller, meaning that future avoided capacity costs derived from DSM resources are essentially being pre-paid for a period of time before they may actually be needed. If the saved energy and accumulation of demand reduction is cost effective, the IRP modeling will select the appropriate amount of DSM bundles.

Mr. Haselden testified that the methodology for determining cost effectiveness for individual DSM programs differs from the IRP process in that the programs and measures that comprise those programs are evaluated comparing their costs over time to their benefits on an NPV basis. Mr. Haselden testified that IRP modeling discounts the cash flow necessary to construct or acquire a supply-side resource from the time those costs are incurred to the present period in the NPVRR analysis. Mr. Haselden stated that not discounting the value of capacity would be analogous to constructing a supply-side resource years before it is needed and ignoring the time value of money used earlier than necessary. Mr. Haselden testified that "Avoided costs" are considered benefits and the UCT can be considered the foundation of the four basic benefit/cost tests. The other cost tests add or subtract other costs such as customer incentives and lost revenues to gain a perspective of benefits and costs from the viewpoints of other stakeholders such as DSM program participants, non-participating customers, and society, as defined by the TRC.

Mr. Haselden testified Petitioner did not model the benefits of avoided capacity correctly because there is no consideration given to when capacity costs are actually avoided. Mr. Haselden cited the 2001 California Standard Practice Manual ("CSPM"), which states that benefits under the Program Administrator Cost Test, also known as the UCT, include: the avoided supply costs of energy and demand, as well as, the reduction of transmission, distribution, generation, and capacity valued at marginal costs for the period when there is a load reduction.

Mr. Haselden stated that the avoided capacity costs for Petitioner will not begin until 2023 or later, despite there being a demand reduction due to DSM efforts in 2020 through 2024, and therefore, the appropriate value for capacity costs for years 2020 through 2022 should be zero.

Mr. Haselden also testified that he did not believe that Petitioner's calculations for the RIM and TRC Tests are correct because the calculations omit the shareholder incentive. He stated that shareholder incentives are defined as EE program costs by 170 IAC 4-8-1 (n). He noted that the words, "shareholder incentive" do not appear in the 2001 CSPM and opined that this was most likely because shareholder incentives were rare at that time. Mr. Haselden stated that the general concepts of the cost benefits tests require their inclusion in the TRC and RIM tests because shareholder incentives increase customer bills. Mr. Haselden stated that the Commission has addressed the issue of including all costs in the benefit-cost tests as appropriate in Cause No. 43955 DSM-3.

Mr. Haselden expressed concerns with the cost effectiveness calculations for Petitioner's Outdoor Lighting Modernization program because Petitioner made the assumption that the high-intensity discharge fixtures would be replaced in kind and the LED fixture, which is an upgrade. Mr. Haselden stated that this would only be true if the existing HID fixture had failed and needed to be replaced.

Mr. Haselden expressed concerns with the proposed shared savings incentive for the Outdoor Lighting program as it is inappropriate to award a shareholder incentive for this program because shareholders will also earn a return of and on the investments in the measures.

Mr. Haselden also testified that the OUCC has concerns with the proposed shared savings incentives for Petitioner's Low-Income Neighborhood program because the Company has offered this program for years and has not required a shareholder incentive to do so. Furthermore, Mr. Haselden stated that a financial incentive is prohibited by 170 IAC 4-8-3 (c) and 170 IAC 4-8-7 (e).

Mr. Haselden testified that the OUCC had concerns with the avoided energy and capacity costs Petitioner used in calculating the benefit/cost tests, especially the UCT. Mr. Haselden stated that it was inappropriate for Petitioner to include a carbon tax in its avoided energy cost calculations because this cost does not exist.

As to the avoided capacity costs, Mr. Haselden testified that the OUCC takes issue with Petitioner's avoided capacity costs because it has an excessive amount of avoided transmission and distribution ("T&D") capacity costs. He stated that T&D capacity benefits are created when DSM programs alleviate capacity issues on specific circuits and that none of Petitioner's DSM

programs target specific circuits. He testified that Petitioner is implementing a $1.4 billion TDSIC Plan in Cause No. 44720, which will impact both current and future T&D capacity issues, which forecloses the inclusion of these costs in the avoided capacity costs in this proceeding. Mr. Haselden testified that the avoided T&D costs due to DSM should be set to zero in the UCT calculation in this proceeding because it is likely that the seven-year TDSIC Plan will be completed prior to Petitioner needing additional generating capacity in 2023.

Mr. Haselden also testified that Petitioner's values for avoided T&D capacity costs are not reasonable because they are based upon a 2016 calculation of the average cost of Petitioner's T&D projects from 2008 to 2015. He stated that there were a number of flaws with Petitioner's methodology, including the fact that Petitioner has no evidence to support its assumptions concerning any relationship between DSM and avoided T&D costs, and the fact that Petitioner's avoided estimate of T&D avoided capacity cost is unreasonably large when compared to other jurisdictional utilities in Indiana, which use estimates of zero to 40% of avoided generation capacity costs. Petitioner's estimate is almost equal to 100% of its estimate of avoided generation capacity costs.

Mr. Haselden recommended that avoided T&D capacity costs be set to zero, subject to actual evidence presented or by a standard methodology established by the Commission. He recommended that the Commission require Petitioner to re-calculate the benefit/cost tests using the correct amounts and discounted treatment of avoided capacity costs.

As to Petitioner's proposed shareholder incentive, Mr. Haselden testified that he has additional concerns with the use of unreasonable estimates of savings based upon hours of use of certain measures and the use of halogen bulbs as the baseline to project future energy and demand savings for an unreasonable period. Mr. Haselden also expressed concerns that there is no true-up of the shared savings approach adopted by all Indiana utilities and the methodology is not aligned with the issue as accurately as it should be.

As to Petitioner's specific proposed shareholder incentive, Mr. Haselden stated that the use of the NPV of the lost return on equity on a future supply-side investment results in incentives that far exceed the PV of lost opportunity for ROE on a supply-side investment. He explained that some DSM programs have high energy savings and low capacity savings that do not result in a lost opportunity to earn a return on a supply side resource.

Mr. Haselden raised several issues with the utility estimated avoided costs calculations. He testified that the utility estimated avoided costs used in the IRP are seldom justified, vetted, nor actually "approved" by the Commission. He stated that there is a wide range of avoided costs that can range from zero to over 100% of avoided generating capacity costs and are also based on widely differing and inconsistent assumptions. Mr. Haselden testified that the various assumptions result in overstated UCT scores and, therefore, overstated shareholder incentives.

Mr. Haselden testified that there are reasons shareholder incentives should be reconciled. Mr. Haselden recommended replacing the current UCT-based methodology with a more straightforward methodology that uses an enhanced ROE on the foregone supply-side investment discounted to the year the DSM measures are deployed. He testified that his proposed

methodology would award a portion of the ROE on the foregone supply-side investment attributable to the year the DSM measures are deployed, subject to EM&V of those measures or programs, in the first reconciliation filing after the EM&V is completed and that the remainder of the shareholder incentive would be awarded at the time the diminished or deferred supply-side resource is acquired. Mr. Haselden recommended an enhanced ROE of .5% greater than the ROE awarded with the utility in its most recent general rate case and an initial aware percentage of 30% of the enhanced ROE. Mr. Haselden's direct testimony included attachment JEH-3 demonstrating the calculations discussed in his testimony.

Mr. Haselden included Appendix B to his testimony, which is a listing of program measures and concerns, focused primarily on lighting measures within Petitioner's filing. For example, this attachment raised concerns with Petitioner's non-residential LED GSL measure, in which he argues that Petitioner should receive no financial incentive once the Company updates its avoided costs and UCT calculations, as well as a reduced measure life. Mr. Haselden also raised issues with the Portable LED fixtures, the lighting measures included in the Energy Education Program for Schools, and GSL general services bulbs in general.

As to the Portable LED fixtures, Mr. Haselden argued that it should receive no lost revenue, shareholder incentive, or cost recovery of customer incentives because there is no credible evidence to that it is a DSM measure. Mr. Haselden argued also that, beginning January 1, 2020, the bulbs in the Energy Education Program for Schools changed from two 9-watt LED bulbs to now include two 5-watt candelabra-base bulbs. He recommends that Petitioner revise its savings estimate to account for his assumption that the installation rate for the candelabra bulbs will be very low compared to the previous bulbs. As to the prevalence of GSL service bulbs in the Company's portfolio, Mr. Haselden recommended that Petitioner use LEDs as the baseline bulb with a sunset date for market baseline transformation effective January 1, 2021.

Because the OUCC does not have the ability to run the adjustments recommended in his testimony, Mr. Haselden requested that the OUCC be given the opportunity to actively participate in the recalculation of the DSM Adjustment factors as recommended in his testimony and to review and comment on the results prior to Petitioner submitting them to the Commission if so ordered.

Mr. Loveman testified that he recommends the Commission authorize Petitioner continued recovery of the most recently approved DSM adjustment factor, subject to later reconciliation, until Petitioner receives Commission approval of a new DSM Plan. Although Petitioner did not recommend any specific accounting treatment for its proposed Outdoor Lighting Modernization Program, Mr. Loveman recommended that Petitioner book plant-in-service capital costs by removing the rebate given to customers for the LED fixture change outs.

As to Petitioner's Outdoor Lighting Modernization Program, Mr. Loveman testified that it is not clear how Petitioner intends to account for change-outs within its accounting records or in any future filings. Mr. Loveman recommended that in any future base rate case filing where the capital costs for Petitioner owned lighting is updated, the capital costs booked as plant in-service should reflect the actual cost of conversion, which is the material and labor to install the new fixture less the rebate given to customers. Mr. Loveman stated that Petitioner is currently earning a return of and a return on Company owned lighting fixtures through its base rates. Mr. Loveman stated that, if this rebate amount is not removed when capital costs are booked for the changed out

fixtures in Petitioner's next base rate case, it will also recover this rebate amount in base rates via depreciation expense and a return on the assets over the life of the assets.

Mr. Loveman stated that if the Commission rejects a portion of any particular program, or finds the entirety of the 2020-2023 DSM Plan unreasonable based on Mr. Haselden's recommendations, then OUCC recommends the Commission continue Petitioner's interim program authority previously granted in this Cause, and continued cost recovery using the most-recently approved DSM adjustment factor, subject to reconciliation, until a new DSM Plan is approved.

C. CAC's Case-in-Chief. The CAC presented the testimony of two (2) witnesses in its case-in-chief: Mr. Jim Grevatt, Managing Consultant at Energy Futures Group (entered into evidence as CAC's Exhibit 1 as Corrected and 1C) and Ms. Anna Sommer, Principal at Energy Futures Group (entered into evidence as CAC's Exhibit 2 as Corrected and 2C).

Mr. Grevatt recommends to the Commission that the Plan be rejected in its entirety and that the Company be directed to work with its OSB to address shortcomings so that a revised Plan can be submitted that will meet the "reasonableness" standard required for Commission approval. He specifically raised issues with the transparency of the MPS process, the prioritization of ~~short life of~~ certain short-life measures, the low-income weatherization program, and lost revenue recovery.

Mr. Grevatt testified that the Company will experience load growth in coming years, and ~~that~~ that the EE Plan is based on the Petitioner's 2017 load forecast, which projects 21% load growth from 2018 through 2042. ~~While~~ Mr. Grevatt found that the ~~He also stated that the~~ 2018 IRP forecast differs from the MPS forecast, which was based on the 2017 load forecast, by an increase of about 13.5%, it was clear that Petitioner will experience significant load growth in coming years.~~.~~

As to the MPS, Mr. Grevatt testified that the MPS relied on the Company's Spring 2017 forecast, which projected load to increase by 21% through 2042, whereas the 2018 IRP projected an increase of about 13.5% through 2038. Mr. Grevatt recommended that the Commission order Petitioner to work with its OSB and interested IRP stakeholders to reconcile these differing figures. He also urged the Commission to intervene and force Petitioner to show more ability to receive and incorporate feedback from customers and stakeholders.

Mr. Grevatt testified that American Council for an Energy Efficient Economy's ("ACEEE") recent 2020 Utility Energy Efficiency Scorecard showed Petitioner's overall EE ranking was 39th out of 52 utilities, based on receiving 33% of the available points in ACEEE's ranking.

Mr. Grevatt stated that the CAC opposes Petitioner's proposal of a four-year plan, ~~as well as~~rather than a three-year plan, because of the risks inherent in this proposal, especially considering~~because~~ ~~the~~ Petitioner's 2018 IRP underlying the Plan is "irredeemably flawed" as explained by CAC Witness Sommer. As was later stipulated by Petitioner in lieu of cross-examination, the new MPS process has already begun and has a due date of February 2021. The

2021 IRP is due November of 2021, further adding to the risk of approving Petitioner's proposal for a four-year plan. He stated that there are potential risks to a four-year plan to the extent that program implementation strategies, budgets, and savings levels are "locked-in" because of the extended approval, ~~despite the~~even with the limited flexibility provided and necessitated by the OSB governance model framework.

Mr. Grevatt compared the proposed level of savings against Petitioner's preferred portfolio in its 2018 IRP and found that although the Company is proposing to implement more energy efficiency than was selected in its preferred plan in the IRP, CAC has concerns about what levels of EE should have been selected as cost-effective in the IRP, given the significant errors in the IRP as identified by CAC Witness Sommer. The Commission does not have a proper analysis by Petitioner that corrects the flaws contained in the IRP and DSM modeling.

Mr. Grevatt testified that the proposed portfolio does not strike an appropriate balance in the savings it proposes to achieve in the different programs, because the Plan is overly reliant on short-lived residential MyHER behavioral program savings. He also raised issues with the Low-Income Weatherization program and non-residential lighting control measures and their absence of reasonable savings targets.

Mr. Grevatt raised three concerns with the MyHER program: (1) ~~it~~ this one behavioral program comprises 57% of the total annual residential sector savings, equating to 28% of the total annual portfolio savings and~~; (2) it~~ is the least cost-effective of the programs in the Company's residential sector portfolio; ~~and~~ (2~~3~~) the savings it provides for individual customers are almost negligible, and not a useful tool for helping customers manage their energy bills and that the savings will not endure in a way that will help mitigate the Company's projections for load growth in the residential sector; and (3) the short-lived MyHER savings will not endure in a way that will effectively help mitigate the Company's projections for load growth in the residential sector.

Mr. Grevatt testified that, because the MyHER program only delivers savings that last for a single year, its cost effectiveness~~,~~ does not compare favorably with programs that deliver longer-lived measures and/or savings. He ~~claimed~~ found that the Petitioner over-relies on MyHER to the detriment of other programs, such as the Smart $aver Residential program, and does not sufficiently promote the longer-lived measures it offers. Mr. Grevatt calculated that the average residential customer would save little more than ten dollars per year as the result of participation in the MyHER program, thus failing to provide meaningful savings.

As to components missing from Petitioner's proposed portfolio, Mr. Grevatt recommended that the Company add heat pump water heaters ("HPWH") and other lighting controls that would provide greater savings for the Company's customer, such as Networked Lighting Controls that combine multiple control strategies in one system to provide greater energy savings. Mr. Grevatt found that Petitioner is taking insufficient steps to increase the market share of HPWH and suggests the Company model its use of the midstream program approach for this measure on the successes of other jurisdictions to do much more with this valuable component of DSM. Likewise, the failure of Petitioner to address the significant savings potential brought by Networked Lighting Controls will continue to short-change the Company's customers.

Mr. Grevatt testified that past performance of Petitioner's Low-Income Weatherization program suggests that Petitioner has struggled to realize the benefits for its customers that it attempts to provide, indicating shortcomings in the program design that need to be analyzed and addressed, despite the issues being raised repeatedly in the past. Mr. Grevatt testified that the dollar limits on health and safety expenditures are too low and too restrictive to meaningfully address the health and safety issues that stall weatherization, a viewpoint shared by many Community Action Agencies that assist in implementing Low-Income Weatherization programs. These problems will remain without a forthcoming, thorough evaluation by the Company. Mr. Grevatt recommends that the Commission make approval of Petitioner's Plan contingent on a revised Low-Income Weatherization Program Plan that provides: 1) an analysis of the causes of the program's poor past performance, and 2) proposed solutions to those causes that will allow Petitioner to meet the reasonable participation and savings targets that it has proposed for the program.

Mr. Grevatt testified that based on his experience managing EE programs, it would be appropriate for the program implementation team to utilize the services of an objective third-party evaluator to identify issues and propose solutions to improve program performance for the Low-Income Weatherization Program.

Mr. Grevatt testified that it is necessary to provide adequate protections for customers when allowing for lost revenue recovery. Mr. Grevatt further testified that the Company is seeking to collect $28.8 million in lost revenues during the four-year Plan period; however, this is an incomplete and misleading representation of the funds that it proposes to recover, because this figure only represents the lost revenues that will be collected during the four-year implementation period. Because the Company proposes to collect lost revenues for the life of the measure, it will continue to collect lost revenues beyond this four-year period. In reality, the projected lost revenues pursuant to Petitioner's Corrected Exhibit 5-B for 2021-2026 is $66.7 million compared to $147 million in contemplated program costs for the proposed four-year program cycle.

Mr. Grevatt testified that Petitioner's lost revenue proposal is unreasonable and transfers risk to customers that would otherwise rest with the Company, because customers will be forced to pay regardless of any changes that affect sales volumes. Such a position would allow the Commission to reduce utilities' risk without also reducing the utilities' rewards. Crucially, Mr. Grevatt concludes that the future adoption of energy efficiency—beyond a couple of years—is not reliably predictable, and thus cannot be captured in the lost revenue calculations.

Mr. Grevatt recommended the Commission limit the collection of lost revenues to the measure life, or three years, whichever is less because three years mirrors the typical Plan period, and is a reasonable time period for which evaluators can make estimates about technology and market condition changes that will affect natural adoption of efficiency measures.

Mr. Grevatt also recommended the Commission implement a true-up process for lost revenues that considers the amount that the Company collects towards its approved revenue requirement. He stated his belief that the Company should only be allowed to recover lost revenues to the extent that it recovers less than its approved revenue requirement through energy sales.

Mr. Grevatt stated that limiting lost revenue recovery to three years would result in Petitioner collecting approximately $42.5 million in lost revenues, which is roughly $20 million less than it proposes in its Plan. He stated that limiting lost revenues to three years would cap lost revenues at roughly 29% of program costs, a reasonable yet less egregious sum.

Mr. Grevatt stated he generally supports the Company's performance incentive proposal so long as the Commission also requires Petitioner to resubmit its Plan with the limits on lost revenue recovery as recommended. Mr. Grevatt believes that allowing the Company to earn an attractive performance incentive on top of no-risk lost recovery is not reasonable.

Ms. Sommer presented evidence to support her claim that Petitioner's IRP is "irredeemably flawed". As to the EE bundles modeled in the IRP, Ms. Sommer testified that Petitioner's modeling costs were inconsistent with the actual EE costs; Petitioner used incorrect transmission loss figures to translate savings from meter to generator; and that there was a lack of a ~~-~~voided transmission and distribution estimate in the selection of energy efficiency.

To support her claim that the IRP modeled costs are different than the Company's actual cost, she presented Table 2, which she ~~claimed~~ demonstrated that the levelized costs of Petitioner's energy efficiency bundles used in the Company's 2018 IRP are almost always higher than the levelized costs of the actual DSM programs, and at times nearly twice as high. Ms. Sommer also insists that it is entirely appropriate to compare Duke DSM Program levelized costs to Duke IRP EE bundle levelized costs. Ms. Sommer pointed to the rebuttal testimony Mr. Park sponsored in the Cause No. 45253 and ~~claimed~~ found that there were inconsistencies in what was relied on in the IRP versus what was filed in the Company's 2017 scorecard, as updated in February of 2020. Ms. Sommer concluded that Mr. Park's calculations do not support the levelized costs used by Petitioner to model future EE programs, and that more energy efficiency is cost-effective and available than what was selected in the IRP.

Ms. Sommer also argued that Petitioner should have converted energy savings from the meter using marginal cost as opposed to the average line loss that it used, because energy efficiency always saves energy at the margin due to above-average transmission & distribution ("T&D") costs. Had the Company used the marginal cost, the modeled savings would have increased by about 10%, according to Ms. Sommer.

Ms. Sommer testified that Petitioner omitted avoided transmission and distribution costs when it assessed the economically optimal level of energy efficiency. She stated that she found it highly improbably that there were no avoided costs and cited to 170 IAC 4-7-8(c)(6). She also flagged that the Commission agreed that T&D avoided costs for energy efficiency are not zero in the Order from Cause No. 43955 DSM 7.

Attached to her testimony as Attachment AS-2~~,~~ was ~~a~~ CAC et. al's Report on Petitioner's 2018 IRP submitted on December 6, 2019, and revised on March 2, 2020. This Report was part of the IRP stakeholder process pursuant to Commission's IRP Rule, 170 Ind. Admin. Code 4-7. The confidential version of this report was submitted as Attachment AS-2-Confidential.

D. Petitioner's Rebuttal Testimony. Mr. Duff, Ms. Dean, Mr. Park, Mr. Phillip O. Stillman, Ms. Williams, Ms. Holbrook and Mr. Jayme T. Stemle filed rebuttal testimony responsive to the OUCC and CAC (which was entered into evidence as Petitioner's Exhibits 7, 8, 9 as corrected and 9C, 10, 11 as corrected, 12 and 13, respectively).

Mr. Duff stated the Company was willing to make some changes responsive to the CAC's testimony. Specifically, in response to concerns raised in the CAC's testimony regarding a four-year plan and programs and budgets being locked in, Mr. Duff testified that the Company is proposing that the OSB have increased discretionary authority to modify, add, or discontinue programs up to 20%. As to the Low-Income Weatherization program, he stated that the Company will remove the requirement of the health and safety average of $250 per home, as discussed in Ms. Dean's rebuttal testimony. Mr. Duff also said the Company will open its Low-Income Weatherization program to customers who are renting and that the Company is willing to make modifications to include additional high intensity measures.

In response to Mr. Haselden's allegation that Petitioner failed to adequately support its request in its case-in-chief, Mr. Duff testified that Petitioner presented all of the information required under I.C. § 8-1-8.5-10 and included a matrix that lists the factors the Commission is to consider under I.C. § 8-1-8.5-10(j), a summary of the Company's proposal to meet that requirement, and the witness who discuss each consideration (Petitioner's Exhibit 1-A). As to Mr. Haselden's contention that there is lack of transparency in the calculations and assumptions underlying Petitioner's proposal, Mr. Duff explained that Ms. Dean's direct testimony includes program budgets and an exhibit with a detailed description of each program. He also testified that Ms. Holbrook's Confidential Exhibit 5-A provides details of the program budgets, including program costs and that Ms. Dean discusses and refutes, when necessary, his arguments about changes in program design.

Mr. Duff addressed Mr. Haselden's concerns about the transparency and validity of the Company's cost effectiveness and financial modeling performed in DSMore and UIPlanner software programs. He stated that the Company has used these models to support Petitioner's EE filings for many years and that Ms. Holbrook's rebuttal testimony responds to this issue. Mr. Duff testified that Company personnel met with Mr. Haselden to enhance his understanding regarding the various assumptions and calculations performed in DSMore and UIPlanner, as well as the various controls the Company has around those calculations.

In response to the OUCC's concern with the proposed performance incentive mechanism, Mr. Duff testified that Petitioner was proposing to continue utilizing the same incentive approved in DSM-4. He stated that proposed shared savings incentive structure, based on UCT benefit, is well understood by interested stakeholders, the Company, and the Commission. Mr. Duff testified that, in DSM-4, the Commission found that proposed mechanism effectively aligns the Company's incentives with customers' interests.[2] Mr. Duff also explained the currently approved tiered shared

[2] "We agree that the performance incentive approved for Vectren in Cause No. 44645 provides a better framework for performance incentives in the State. Specifically, we agree with Dr. Stanton that it is preferable for performance incentives to be tied to both tiered levels of energy savings achieved and the net present value of the net benefits of the UCT. By using this type of structure, the utility is encouraged to minimize program costs while striving to achieve as much cost-effective energy efficiency as reasonably possible." Cause No. 43955 DSM-4 Order dated December 28, 2017, at p. 44-45.

savings incentive has incentivized the type of performance from the Company's portfolio that was intended. During the three years of its Portfolio Plan approved in DSM-4, the Company's portfolio of programs has delivered over 118% of the expected MWh of energy savings while incurring just less than 83% of the expected cost.

Mr. Duff testified that Mr. Haselden's argument that Petitioner's shareholder incentive is disproportionately higher than that of other utilities is misleading and inaccurate because it ties the magnitude of a utility's financial incentive to customer count. He explained that the number of customers a utility serves has very little to do with the magnitude of the energy and capacity savings achieved through a utility's portfolio of EE programs and it does not correlate to the cost of the utility's EE and DR programs. Mr. Duff testimony included a table that compared the Indiana investor-owned energy utilities incentive per MWH based on information filed with each utility's DSM Scorecard, which showed Petitioner in the middle of the pack.

Mr. Duff responded to Mr. Haselden's contention that Petitioner's financial incentive during 2017-2019 is approximately double its original projection. Mr. Duff explained that the number used by Mr. Haselden reflected the Company's proposed financial incentive, which was a tiered cost-plus model. Mr. Duff testified that Mr. Haselden omitted the fact that the Company changed its proposed incentive mechanism in its rebuttal testimony in response to the OUCC and CAC concerns and that the Commission approved those changes.

Mr. Duff responded to Mr. Haselden's concern that there is no true-up of the shared savings incentive calculation and his desire for a change in the underlying avoided costs used in the calculation of net benefits under the UCT. Mr. Duff stated that the Commission recently found that the need for stability in the avoided costs used for calculating cost effectiveness and shared savings during the course of a portfolio plan was recognized in its February 26, 2020 Order in DSM-7 when it stated: "Another significant difficulty is that it is impractical to approve an EE plan for a set period of implementation using one set of avoided costs assumptions and then change the underlying avoided costs assumptions during EE plan implementation to calculate financial incentives."[3]

In response to Mr. Haselden's proposed alternative to replace the UCT-based methodology with a methodology that uses an enhanced ROE on the foregone supply-side investment discounted to the year the DSM measures are deployed, Mr. Duff testified that aside from being unnecessarily complex, his proposed alternative is impractical as it requires many assumptions to be made. Mr. Duff testified that the assumption that the deferred supply side investment is only occurring because of DSM is faulty because many factors affect the timing of the need for supply side investments, including DSM adoption, customer adoption of distributed energy resources, plant retirement schedules, as well as a multitude of other variables such as the state of the economy.

Mr. Duff further testified that he disagreed with the underlying assumption of Mr. Haselden's proposed alternative financial incentive approach because the underlying assumption excludes avoided energy. Mr. Duff stated that this position is troubling as one of the primary goals of EE programs is to help customers become more efficient and reduce their energy consumption.

[3] IURC Cause No. 43955 DSM-7, Final Order dated February 26, 2020, at Page 11.

Mr. Duff pointed to 170 IAC 4-8-7(c) and 170 IAC 4-8-7(g) to support his argument that it is appropriate to include avoided energy savings in the determination of a utility's reasonable financial incentive.

Mr. Duff responded to Mr. Haselden's contention that the Company should not be entitled to the requested financial incentive on the Low-Income Neighborhood Program because it is prohibited by Commission rules. Mr. Duff stated that the Neighborhood Energy Saver Program does not meet the definition of a home energy efficiency assistance program, as defined by 170 IAC 4-8-3(a)(2) as the program is targeted geographically, rather than at specific customers who qualify based on financial need.

Mr. Duff expressed concerns with the ACEEE Report Mr. Grevatt referenced regarding Petitioner's performance compared to other utilities. Mr. Duff testified that it is misleading to present this ranking without further explanation regarding what is the basis for the ranking or why Mr. Grevatt is sharing it as being relevant to this proceeding. Mr. Duff testified, the ACEEE Utility Energy Efficiency Scorecard is based on 18 scored metrics and that many of those metrics do not directly relate to the Company's portfolio of EE and DR programs. The Company also has concerns regarding the scored metric related to energy savings as a percentage of retail sales, as the scoring did not account for the impact of industrial customer opt-out.

In an effort to alleviate Mr. Grevatt's concerns about the OSB having flexibility to modify programs over the four-year Plan, Mr. Duff proposed to double the OSB's discretionary spending cap to 20%, in order to allow it to make the more substantial portfolio changes that could potentially be required over a four-year Portfolio Plan.

Mr. Duff concluded his rebuttal testimony by testifying that it remains his opinion that Petitioner's proposed EE Plan in this filing is in the public interest.

Ms. Dean provided rebuttal testimony regarding Mr. Haselden and the OUCC's concerns with the Agency Assistance Portal, Energy Efficiency Education, Multi-Family Energy Efficiency Products and Services, Residential Energy Assessments, Smart $aver® Residential, Smart $aver® Non-Residential Incentive, and the Outdoor Lighting Modernization programs.

As to Mr. Haselden's concern that the Company failed to disclose that it will cease providing packages of LED light bulbs to qualifying customers after 2020 as part of the Agency Assistance Portal Program, Ms. Dean testified that the Company has not yet decided to stop providing packages of LEDs but is evaluating potential program modifications for the future. Program Managers are looking to pursue other alternatives such as offering specialty lamps such as reflectors, globes, and candelabras and once the Company has a recommendation, it will take that recommendation to the OSB.

Ms. Dean also responded to Mr. Haselden's complaint that Energy Efficiency Education Program will no longer provide GSL A-Line LED bulbs in kits after June 30, 2020, and that the kits will instead include specialty LED bulbs. Ms. Dean testified that the Company actually decided to change to candelabra bulbs from A-Lines beginning January 1, 2020. Petitioner's Exhibit 8-A was a communication to the OSB at the February 12, 2020 meeting regarding the

Energy Efficiency Education program.

As to the Multi-Family Energy Efficiency Products and Services, Residential Energy Assessments, and Smart $aver® Non-Residential Incentive Programs, Ms. Dean testified that the Company was proposing to increase spending for these programs as they are successful programs and the Company's Program Managers believe there is increased potential for customers to participate in the programs. Additionally, Ms. Dean stated that the Company requested additional funding from its OSB for each of these programs in 2019.

Ms. Dean further addressed Mr. Haselden's concerns with a decrease in the Smart $aver® Residential program budget and his concern that GSL LED bulbs will not be offered through the On-Line Savings Store or through the Free Lighting programs after June 30, 2020. Ms. Dean testified that the Smart $aver® Residential program budget decreased because the Company is shifting to direct install programs and increasing the types of retail establishments that attract lower income shoppers. Ms. Dean stated direct installs will help ensure the Company is still meeting customers' needs and allow the Company to visually ensure the new LEDs have been installed in permanent fixtures that used to be incandescent. GSL LED bulbs are proposed to continue through the Retail Lighting program, but at a diminishing rate in each subsequent year.

As to Messrs. Haselden and Loveman's recommendation that there shouldn't be any shareholder incentive or lost revenues on the Outdoor Lighting Modernization program because the Company will earn a return of and on the investments in the measures, Ms. Dean distinguished the Company's program from I&M's Outdoor Lighting program. Ms. Dean testified that her understanding is that I&M chose to use the rebate to buy down the capital cost of the purchase of the company owned streetlights; whereas, Petitioner's program is structured to directly provide the incentive to the customer. Ms. Dean stated that this is consistent with the Company's DSM program design, which has always been based on O&M items, such as customer incentives and rebates, and not on capital spend, such as company owned lighting fixtures. Ms. Dean further testified that the Company believes this will lead to success, because the customer will receive a cash incentive upfront to help offset the customer's cost to upgrade to LED. Thus, there will be an incentive for customers to participate in the program.

Ms. Dean disagreed with Mr. Haselden's recommendation that Petitioner should be using the full direct and indirect costs for the cost/benefit test for its Outdoor Lighting Program because the program is a "replace upon fixture failure" model and is based on the assumption that equipment is being replaced due to the imminent or actual failure of existing lighting equipment. She stated that, because current lighting tariff structures do not mandate the customer upgrade to LED, the customer could replace the inefficient light with another inefficient light absent an incentive to do otherwise. Ms. Dean explained that, through this program, Petitioner is trying to incentivize the customer to upgrade to LED. Because a customer can choose a less efficient non-LED lighting fixture, it is appropriate to use just the incremental costs of switching to the LED fixture in the benefit/cost analysis.

In response to Mr. Loveman's concerns with accounting treatment for the Outdoor Lighting Program, Ms. Dean explained that Petitioner is not asking for any recovery or return on capital for lighting in this proceeding. The only budgeted items in the filing for the Outdoor Lighting program

are for the incentive payments to customers, the administrative costs to add additional functionality to the Company's existing EE incentive processing and tracking system, and for the associated shareholder incentives and lost revenues.

In response to Mr. Haselden's recommendation that the Commission deny shareholder incentives and lost revenues for the Outdoor Lighting program, Ms. Dean responded that Duke Energy Indiana has structured this program similar to the remainder of its EE programs (providing rebates to customers). Further, Ms. Dean testified that performance incentives and lost revenues for this program help to reduce the Company's disincentive to implement this type of program. If a performance incentive is not given, these lights could continue to be inefficient for the foreseeable future. She explained that this program allows customers to get uniform, more energy efficient lighting deployment earlier than if the customer only upgrades one light that may need to be replaced upon failure. She testified that the Company has chosen to offer the identical rebate to its customers with Company-owned lights as the rebate offered to customers who own their own lights, such as in the Smart $aver Non-Residential Incentive Program.

Ms. Dean responded to CAC witness, Jim Grevatt, who recommended the Company revise its programs to increase focus on longer-lived measurers in the residential sector that will provide greater savings opportunities for customers and provide persistent savings to help mitigate anticipated load growth. As shown in Ms. Dean's Exhibit 2-A, all of its residential programs have a measure life average of five (5) years or greater (with the exception of the My Home Energy Report), with the Smart $aver® Residential average measure life being the highest at 14.1 years.

As to Mr. Grevatt's recommendation that the Company increase its offerings of HPWH, high efficiency heat pumps and residential shell measures, Ms. Dean stated that the Company is working to increase participation in all these programs. To help increase participation, the Company initiated an instant point-of-sale rebate for HPWH in mid-2018. Ms. Dean testified that the Company's Low-Income Neighborhood program and its Smart $aver® Residential program reach out to low-income customers through target marketing during times when its customers are thinking about better insulation – like before and during the winter periods in Indiana.

Ms. Dean testified that the budgeted participation in the Smart $aver® Residential program, which includes HPWH, was largely based on the previous 3-year average of participants experienced by the program. Historically, approximately one-third of the Company's heating and cooling measure rebates have been for heat pumps, with the remaining two-thirds rebates for central air conditioners. Ms. Dean further testified that the Company provides an incentive of $350 which equates to approximately 42% - 52% of the incremental cost a customer can expect to pay for a heat pump water heater over a standard electric resistance tank water heater.

As to concerns with the Low-Income Weatherization program, Ms. Dean testified that CAC and Petitioner have been working to remedy participation concerns in this program. In 2018, the Company initiated a Weatherization improvement plan and presented it to the OSB. She stated that some of the action plan items included participating in IHCDA trainings to discuss program improvement initiatives, learning more about the challenges faced by the Company's service providers, the community agencies across Indiana that participate in the Company's Weatherization program, and working on collaboration across all of these agencies.

To improve the Low-Income Weatherization program offering, Ms. Dean testified the Company is willing to remove the requirement that the health and safety component must average no more than $250 per home. She stated that the maximum amount provided per home would still remain at $750, which would allow the IHCDA to be able to complete additional health and safety measures, without having to track the average cost for the program. Ms. Dean also testified that the Company is willing to open the program to renters.

In response to Mr. Grevatt's recommendation that the Company expand its promotion of non-residential lighting controls to prioritize networked lighting controls, Ms. Dean testified that the Company's Smart $aver® Non-Residential program already does offer these networked lighting controls similar to those described in Mr. Grevatt's Testimony.

As to Mr. Grevatt's concerns with the Company's MyHER program, Ms. Dean responded that MyHER is an important component of the Company's overall portfolio and is an opportunity for customers to see their energy usage in comparison to other customers. Ms. Dean testified that the independent verification of the MyHER program, filed with the Commission in Cause No. 43955 DSM-3 on June 28, 2019, has shown MyHER customers are more motivated, engaged, and aware of EE programs than customers who are not in MyHER.

Ms. Dean further testified that she does not agree with Mr. Grevatt's calculation for the program savings for MyHER and referred to the program's EM&V report, which was filed in Cause No. 43955 DSM-3. The report stated the per participant saving is 136.2 kWh per year, with an additional 4.6 kWh savings that was subtracted from MyHER to represent the uplift in other Company programs. Ms. Dean testified that any savings for the Company's customers, especially its low-income customers, are helpful to reduce energy consumption and increase customer savings for implementing any behavioral modifications in a meaningful way.

As to Mr. Grevatt's concern that the Company should offer more Smart$aver® Residential measures, Ms. Dean testified that the Company is continually looking for more opportunities to increase the size of each of its programs. The measures mentioned by Mr. Grevatt are large investments for any customer.

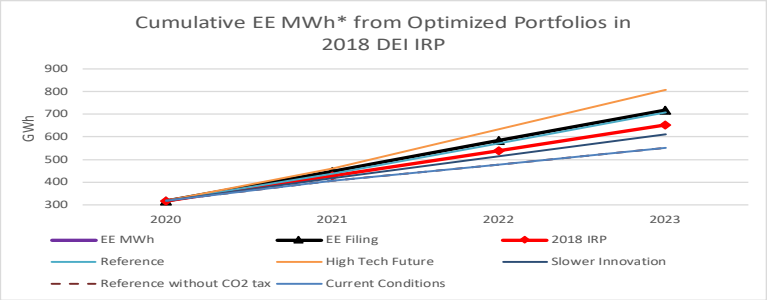
Mr. Park addressed in his rebuttal testimony the issues and concerns Mr. Haselden of the OUCC and the CAC witnesses Mr. Grevatt and Ms. Anna Sommer have raised regarding Petitioner's 2018 IRP. He refuted Ms. Sommer's allegations that the IRP is irredeemably flawed. Mr. Park further noted that while the report attached to Ms. Sommer's testimony included many IRP related issues, his rebuttal testimony focuses specifically on the EE related issues. Mr. Park referenced his rebuttal testimony included in the Company's retail rate case proceeding, Cause No. 45253, which the Company sought Administrative Notice.

In response to Intervenors concerns, Mr. Park summarized how EE was modeled in the 2018 IRP. Mr. Park testified that the starting point for an IRP is the load forecast. He stated that the load forecasting process needs to be modified to remove the EE that had been previously included in the load forecast and is now being represented in the EE supply-side resource bundles to prevent double counting or omitted in the modeling process.

Mr. Park explained that for the 2018 IRP, the EE Analytics Group grouped EE measures by the hourly energy savings profile and bundled them in a manner that the capacity expansion model could use for economic selection. He stated that the IRP Group modeled EE as a fixed-profile, multi-year resource that includes an hourly profile that is referred to as an EE bundle. Mr. Park testified that this hourly shape would be dictated by the representative EE programs that could reasonably be expected to comprise an EE bundle.

Mr. Park testified that the amount of EE in the preferred portfolio is appropriate as seen relative to the amount of EE selected across the range of optimized portfolios. Mr. Park provided a chart showing the amount of EE in the preferred portfolio and the EE Plan in this filing are well within the range of EE selected in the scenarios that are not favorable to EE and the favorable High-Tech Future scenario.

Figure 1



Mr. Park further testified that the proposed filing is consistent with the 2018 IRP, as shown in the Tables below.

Table 1

Incremental 2020-23	**2020**	**2021**	**2022**	**2023**
IRP MWh	156,757	157,314	160,220	164,447
Filing MWh	182,706	186,417	193,011	191,415
IRP MW	27	30	31	32
Filing MW	25	24	24	25
IRP Program Costs ($MM)	$ 36.69	$ 37.11	$ 38.68	$ 40.86
Filing Program Costs ($MM)	$ 36.27	$ 36.25	$ 36.93	$ 37.09

Table 2

Percentage of System Data*2020-23	2020	2021	2022	2023
IRP MWh	0.5%	0.5%	0.5%	0.5%
Filing MWh	0.5%	0.5%	0.6%	0.6%
IRP MW	0.4%	0.5%	0.5%	0.5%
Filing MW	0.4%	0.4%	0.4%	0.4%
IRP Program Costs	4.1%	4.3%	4.2%	4.3%
Filing Program Costs	4.1%	4.2%	4.0%	3.9%

***System Data used for this comparison is from the 2018 Preferred Portfolio in the Reference Case Scenario and the System Cost information used for this comparison does not reflect sunk costs.**

Mr. Park testified that the difference between the proposed filing and the IRP is less than 1% across all three metrics, and as such, this demonstrates consistency between the IRP and the proposed filing.

In response to Mr. Haselden's concern with inclusion of a carbon tax in the IRP and analysis of EE, Mr. Park stated that recognition of the possibility of carbon regulation is not only appropriate, but prudent. He explained that carbon regulation will improve the value proposition of EE and will do so for the portion of measure lives that realize savings after carbon regulation begins.

Mr. Park addressed Ms. Sommer's complaints about how EE was modeled in the IRP. Regarding how avoided transmission and distribution costs are factored in the IRP, Mr. Park testified that avoided transmission and distribution costs have not been part of the IRP analysis in the past because those costs are highly locational dependent. Given the relative size of EE savings, "avoided" transmission and distribution costs may be a misleading label as it assumes an EE program can truly avoid future growth plans for the transmission and distribution system. Mr. Park explained that, for EE, transmission and distribution costs are more of a deferred value, where cost of growth expansion is pushed out in time, but escalated due to inflation and then discounted back to the present. Mr. Park stated that the Company's high-tech scenario included a lower cost for EE and, as such, can act as a proxy for any added avoided T&D value. He stated that this scenario did pick some extra bundles of EE compared to the reference case with carbon, but that the overall EE impacts included in this scenario are close to the Company's proposed EE portfolio in this case.

Mr. Park testified that, in response to Ms. Sommer's testimony, the Company conducted sensitivity analysis to test the impact of a 20% reduction in EE cost to reflect the T&D avoided costs used in its EE portfolio filing in the IRP Reference Case scenarios with and without a price on carbon emissions. New System Optimizer model runs were performed in which the cost of all EE bundles available for selection in 2021 and beyond was reduced by 20%, with all other model inputs consistent with the original IRP runs. Mr. Park testified that the results are comparable to the Company's proposed portfolio, with the exception that the. IRP model selected two additional EE bundles, but the additional KWh was not significantly higher than the original analysis.

Mr. Park testified he does not agree with Ms. Sommer's methodology or conclusions that the Company's IRP is irredeemably flawed. As Mr. Park testified, Ms. Sommer makes an inaccurate comparison when she compares her calculated historical levelized costs of EE programs to those provided by the Company in Table 2 of her testimony because she did not use the same underlying assumptions as were used by the Company in the IRP.

Mr. Park testified that the detailed calculations provided by Ms. Sommer for her Workpaper 6 - EE levelized cost calculations contains several errors. Mr. Park also testified that Ms. Sommer used an incorrect Program Cost for the Smart $aver® Non-Residential program during 2017. Correcting her analysis to use the correct actual program costs results in a substantially higher levelized cost per KWh.

Mr. Park further testified that the Company has previously explained to the CAC and Ms. Sommer that in order to make an accurate comparison to the IRP levelized costs, it is necessary to perform the Levelized Cost calculations at the individual program level and then add the total Levelized Costs together then divide by the overall Portfolio KWh. Performing the analysis this way results in the following comparison:

Table 5 – Final Comparison

Historical Levelized Cost Comparison
Levelized $/First Year KWh

Year	Joint Intervenors Filed Calulation - Gross KWh at Plant	Duke Energy Indiana Program-level Calculation using All Correct Assumptions
2012	$0.012	$0.023
2013	$0.017	$0.030
2014	$0.016	$0.039
2015	$0.022	$0.039
2016	$0.019	$0.031
2017	$0.016	$0.038
2018	$0.017	$0.036
2019	$0.019	$0.038

1. Assume Duke Real Discount rate used in IRP of 4.59%
2. Assume all Program Costs in 2018 $ using CPI provided by CAC

Mr. Park testified that Ms. Sommer's calculated values are even more understated when viewed on the same basis as the IRP. Mr. Park stated that the numbers presented in Table 5 are different than those originally provided by Mr. Park in the Rate Case proceeding; however, in reviewing the methodology for this rebuttal testimony, the Company also updated its internal analysis to include the use of the Net KWh values along with a few other minor changes for this comparison.

Mr. Park testified that Ms. Sommer's attempt to discredit the IRP analysis by stating the IRP is invalid because the historical levelized program costs are so much lower than those used in the IRP bundles is not accurate. When the calculations are performed correctly to view the information on an equivalent basis, it is obvious that these values are not significantly different, and in several cases, the values in the bundles in the IRP are lower than those in the historical portfolio. In response to Ms. Sommer's allegation that the weighted average levelized cost of the IRP EE bundles that were economically selected by System Optimizer is higher than any program year levelized cost calculated by the Company and nearly twice as high as the levelized cost calculations based on actual scorecard data, Mr. Park responded that it appears Ms. Sommer used this statement as a way to show the IRP model would have chosen significantly more EE bundles if the costs had been lower. But, as the Company's analysis shows, the actual levelized costs of the current EE portfolio in 2017-2019 and continuing into 2020 pending approval of this DSM-8 proceeding, are very close to the threshold at issue.

In response to Ms. Sommer's concern about the level of transmission losses used in the analysis of EE in the IRP, Mr. Park responded that the avoided losses should be marginal, because the IRP does not have locational information on where customers will choose to adopt EE programs and the EE savings are being spread across all hours, assuming average losses is more appropriate than assuming marginal losses.

Mr. Phillip O. Stillman, Managing Director, Load Forecast & Corporate Strategic Regulatory Initiatives, provided rebuttal testimony on behalf of Petitioner regarding Mr. Grevatt's concerns about Petitioner's load forecast. Mr. Stillman testified that the load forecast is an estimation of future customers, energy, and demand requirements that will be placed on the Company's system. These projections are developed with econometric models supplied by ITRON and take into consideration key economic factors, average weather, appliance efficiency trends, rooftop solar trends, and electric vehicle trends. Mr. Stillman further testified that the load forecast is a single source of the Company's view of future energy sales, peaks, and customers and is used by multiple planning organizations throughout the Company to inform them of future revenues, fuel needs, capacity needs, customer growth, etc. The Company generally updates the load forecast twice a year, once in the spring and once in the fall. The forecast in the Spring of 2017 was the load forecast used in this proceeding.

In response to Mr. Grevatt's comment that the 2017 load forecast projected that electricity use is forecasted to increase by 21% from 2018 through 2042, Mr. Stillman testified that it can sometimes be misleading to quote a growth figure over a long period of time. Mr. Stillman disagreed that there is a concerning discrepancy between the spring 2017 and spring 2018 forecasts because the MPS and the IRP look to different planning horizons and that the MPS forecast does not include the impacts of EE programs, whereas the IRP does. By correcting the time frames and the impact of EE, Mr. Stillman presented a table that showed the 2017 and 2018 load forecast were very similar.

Mr. Stillman testified that there are multiple external sources that the Company follows to ensure that its internal load forecasts are not outliers and cited both the Indiana Utility Regulatory Commission 2018 Report on the Statewide Analysis of Future Resource Requirements for Electricity.

Ms. Williams provided rebuttal testimony responding to issues and recommendations raised in the testimony of Mr. Haselden regarding assumptions around LED GSL useful life and savings impacts he considers overstated, in addition to the exclusion of shareholder incentives/lost revenues in RIM and TRC cost calculations.

Ms. Williams addressed Mr. Haselden's contention that the RIM and TRC test calculations are incorrect because they do not include shareholder incentives. Ms. Williams testified that this position is inconsistent with the standard framework Petitioner and other utilities use to evaluate cost-effectiveness. In response to Mr. Haselden's argument that 170 IAC 4-8-1(n) requires shareholder incentives to be included in RIM and TRC calculations, specifically that shareholder incentives are defined as program costs, Ms. Williams cited 170 IAC 4-8-1(n)(4), which defied costs include: "reasonable financial incentives." She explained that, while the National Standard Practice Manual ("NSPM") includes shareholder incentives in its definition of a cost, the state of Indiana does not require utilities use the NSPM for its primary cost effectiveness calculations. Ms. Williams testified that Petitioner, in its current Plan, has provided the benefits and costs as required and detailed in the California Standard Practice Manual and which the IURC found acceptable for cost effectiveness purposes in its order in IURC Cause No. 43955 DSM-4.

Ms. Williams also addressed Mr. Haselden's contention that the Company's use of halogen lighting as a baseline for GSL LEDs with a sunset date for market baseline transformation effective January 1, 2021 is incorrect. Ms. Williams testified that the backstop provision established in Energy Independence and Security Act (EISA) provides that if the Department of Energy ("DOE") did not issue new energy conservation standards by a certain date, a backstop energy conservation standard of 45 lumens per watt would apply, which would effectively eliminate the sale of halogen and incandescent lamps on January 1, 2020. Ms. Williams testified that retail stores continue to offer incandescent, halogen and CFL bulbs in the Company's service territory. Ms. Williams testified that many of the facts underlying Mr. Haselden's position have fundamentally changed due to actions taken by the DOE regarding the implementation of GSL lighting efficiency standards. She cited to a DOE Final Order issued on September 4, 2019, which expanded the definition of GSL to include specialty bulbs. In the Order, the DOE made clear that the backstop requirement that would have prohibited the sale of GSL bulbs that exceed 45 lumens per watt effective January 1, 2020, is not triggered.

In response to Mr. Haselden's contention that the market for GSL LEDs has transformed, Ms. Williams explained Mr. Haselden's anecdotal evidence and estimate of shelfing stock is not conclusive evidence that the baseline has shifted.

Ms. Williams also addressed Mr. Haselden's contention that the portable LED desk lamp should receive no lost revenue, shareholder incentive, or cost recovery of customer incentives as detailed in his Appendix B. Although Ms. Williams disagreed with Mr. Haselden's contention, she committed that Petitioner will have Navigant review Petitioner's assumptions and present any adjustments to the OSB in our next reconciliation filing or at a scheduled OSB meeting. In response to Mr. Haselden's contention that a fully detailed independent analysis must be undertaken to ensure there are no errors in the underlying measure assumptions, Ms. Williams stated that such an effort would require a significant investment in internal and third-party resources and would likely cost many thousands of dollars and could potentially take up to one year to complete.

Ms. Williams testified Mr. Haselden's contention that that most of the savings from the Energy Education Program for Schools will change when the Company changes from two 9-watt LED bulbs to now include two 5-watt candelabra-base bulbs is incorrect. She testified that the source of the impacts used for this program is the Evaluation Report prepared by Nexant that was published on July 28, 2017 and filed with the Commission on September 18, 2017.

Ms. Williams addressed Mr. Haselden's recommendation as to a reduced measure life for the non-residential LED A-lamp. She stated that Petitioner agrees with Mr. Haselden that Navigant should have accounted for the hours of use for this specific bulb and proposed a shorter measure life. As such, Petitioner will have Navigant review their hours of use and measure life assumptions and will present any downward adjustments to the OSB in the next reconciliation filing or at a scheduled OSB meeting.

Ms. Holbrook responded to Mr. Haselden's testimony regarding the Company's avoided capacity values used in calculating cost effectiveness and shareholder incentives. Ms. Holbrook testified that the Company has calculated avoided capacity benefits for this DSM Plan consistently

with that approved in Cause No. 43955 DSM-4 and previously approved filings. Furthermore, she stated that it is not relevant whether the Company has a planning reserve margin deficit to how avoided costs are calculated. To follow the OUCC's argument to its conclusion would have the Company frequently changing the avoided costs used in analyzing its programs and would not provide for a consistent set of EE programs, which is one key to a successful portfolio of programs. To provide value to customers on an ongoing basis, the Company needs consistency in how it applies avoided costs to those programs. Ms. Holbrook further testified that zeroing out avoided capacity benefits in years the Company is long on capacity, as recommended by Mr. Haselden, would adversely affect the cost effectiveness scores for all DSM Plan programs and result in a much smaller portfolio.

Ms. Holbrook testified Mr. Haselden's testimony raises the same issues he raised in Cause No. 43955 DSM-7 regarding the erroneous impact assumptions and calculations throughout DSMore and UIPlanner, the software programs the Company uses to calculate its actual and forecasted results. Ms. Holbrook further testified that the DSMore program is an industry accepted program that is used in approximately 30 states and by several independent evaluators and is available for the OUCC's review and use onsite at Petitioner's office. Ms. Holbrook further testified that the OUCC has not requested access to Petitioner's DSMore program for independent validation of the Company's calculations, despite offers of assistance by both Integral Analytics and Petitioner.

Ms. Holbrook explained how DSMore and UIPlanner were used in Petitioner's filing. The results from DSMore, by individual participant, are then pulled into another software program, UIPlanner, and then multiplied by the participation at a measure level, which produces the calculations of the total NPV of avoided costs, monthly and annual kWh and kW, and lost revenue. She testified that UIPlanner is subject to numerous Sarbanes-Oxley controls that have been reviewed and audited by internal auditors and shared with external auditors as well.

Ms. Holbrook testified that Mr. Haselden confuses NPV of benefits and shareholder incentive. She explained that the NPV of benefits is the NPV of avoided costs over the life of a measure and that those benefits are calculated for each individual measure due to the differences in savings shapes, measure lives, etc. In contrast, Ms. Holbrook testified that shareholder incentives are calculated at the program level due to the difficulty in allocating and assigning costs down to the measure level. Therefore, in order to provide the calculations at a measure level, many assumptions and allocations had to be made to take program level detail down to the measure level. Ms. Holbrook testified that the most appropriate way to evaluate cost effectiveness and shareholder incentives is at the program level.

In response to Mr. Grevatt's issues with the Company's lost revenue calculations, Ms. Holbrook responded that Indiana statute specifically allows for the recovery of lost revenues associated with utility implemented EE programs. Regardless of what is allowed in other jurisdictions, Ind. Code § 8-1-10(o)(2) makes it clear that if the EE Plan is found reasonable, then a utility is entitled to reasonable lost revenues as a result of successful EE programs.

Ms. Holbrook further testified she does not agree with Mr. Grevatt's assertion that the Company's request for $28.8 million in lost revenues during the four-year period is misleading

because it ignores the full impact of life of measure collections. She stated that attached to her testimony as Petitioner's Corrected Exhibit 5-B was an exhibit that shows the impact of lost revenues over the full lives of the measures. Although Petitioner's Corrected Exhibit 5-B shows the full impact of lost revenue over the full lives of the measures, one key fact to keep in mind is that the Company's TDSIC Plan requires a rate case to be filed before the expiration of the TDSIC Plan (between five and seven years), so the full amount of the lost revenues recovery through the EE Rider will be mitigated by the implementation of new base rates.

Ms. Holbrook testified that Mr. Grevatt provides no factual basis for the claim lost revenue recovery should be limited to three years to mitigate the potential that customers may have implemented the efficiency measures within the life of the measure without the Company's incentive, nor does he provide a reasonable way to measure or assess this "future free ridership". Given that one of the principle goals of Utility EE programs is to accelerate customer adoption of EE measures, Mr. Grevatt's contention would seem to be contrary to this principle. Ms. Holbrook further testified that because Mr. Grevatt fails to provide a meaningful manner to measure this "future free ridership", utilities historically and appropriately rely on the application of free ridership at the point of implementation to determine lost revenues.

Ms. Holbrook also testified she does not agree with Mr. Grevatt's argument that lost revenue recovery for the life of measure transfers the risk of future adoption of EE technology. As she testified, there is no transfer of risk to the Company's customers as the recovery of these revenues would have occurred through base rates had the Company not provided these EE measures to its customers. Ms. Holbrook further testified that DSM programs are designed specifically to reduce energy sales, which in turn, reduces the revenues that can cover a utility's fixed costs. She testified that if the Commission limits lost revenues, it will create a disincentive for electric utilities to promote DSM programs, or if the utility does promote DSM programs, it creates a loss of revenue needed to cover fixed costs previously incurred on behalf of customers. Recovery of these lost revenues is an important mechanism to reducing this disincentive and providing for recovery of fixed costs. Ms. Holbrook stated that limiting lost revenues to anything other than life of the measure is an arbitrary cap on lost revenues. Additionally, the Commission previously agreed that life of the measure lost revenue was appropriate.

Ms. Holbrook explained that she disagrees with Mr. Grevatt's proposal of a true-up process for lost revenues that looks to the amount the Company collects towards its approved revenue requirement because lost revenues are a component of one specific rider and is meant to compensate the utility for revenue lost as a result of its efforts in the implementation of EE programs and that the recovery of lost revenues is meant to return the utility to the position it would be in if it had not offered EE measures. The lost revenues requested for recovery in this proceeding do not guarantee any type of returns on rate base for the utility and are focused only on EE activity covered in this rider.

Ms. Holbrook testified that she disagrees with Mr. Haselden's contention that in any year there is a capacity surplus, there are no avoided capacity costs. As she explained, a capacity deficit is not a prerequisite for capturing and claiming avoided costs in that year. Furthermore, Ms. Holbrook testified that all initial assumptions come from external sources; these include engineering estimates, Technical Resource Manuals or other external sources. Ms. Holbrook

stated that these initial assumptions are then subjected to the EM&V process for any updates that are applied retroactively to the start of the program for purposes of quantifying lost revenues. Subsequent EM&V updates are applied retroactively to prior studies for quantification of lost revenues.

Mr. Jayme T. Stemle, Senior Rates & Regulatory Strategy Analyst, provided rebuttal testimony responding to the OUCC and Mr. Haselden's recommendations relating to the Company's T&D avoided costs. As to Mr. Haselden's contention that the Company's avoided T&D capacity costs are excessive and not reasonable, Mr. Stemle testified that Petitioner's calculation of avoided T&D capacity costs is reasonable.

Mr. Stemle testified that the base value for the avoided T&D cost is the value calculated and approved in the DSM-4 proceeding. He stated that, similar to the DSM-5, DSM-6 and DSM-7 proceedings, this base value is escalated using the Handy Whitman North Central Construction Cost Index for Transmission and Distribution respectively to get the $/KW amount for each year 2020-2023 used in this filing. Mr. Stemle testified that the Company used historical capital expenditures and forecasted peak demand for its calculation to establish a base value $/KW. The calculation takes the average of load growth capital additions for Distribution and Transmission over a six-year period (2009-2014) and divides this number by the average annual six-year forecast growth in Peak Demand (2016-2021). He stated that this result is then multiplied by an annual fixed charge rate which results in a $/KW amount of avoided cost for Transmission and Distribution and that the result is escalated using the Handy Whitman North Central Construction Cost Index for Transmission and Distribution respectively to get the $/KW amount for each year 2020-2023 used in this filing.

Mr. Stemle testified that the Company's TDSIC projects are not growth-related T&D investment dollars, so Mr. Haselden's arguments to that end are to no avail. Attached to his testimony was Petitioner's Exhibit 13-A, which was a benchmarking study related to the topic of T&D avoided costs for EE investments.

Mr. Stemle testified that the Company is investigating other methods of calculating T&D avoided costs because, in recent years, the Company's load forecast has flattened considerably. Due to this decrease in peak load growth, the methodology used by the Company to calculate T&D avoided cost is now under review. The Company has not completed this effort, so the calculation approved in DSM-4, adjusted each year for escalation, is the Company's best estimate of these costs at this time. Mr. Stemle further testified that even though the Company's peak load growth has slowed, the Company is still avoiding T&D costs because customers continue to electrify their daily lives with appliances, technology, and even the potential for mass electric vehicle adoption.

Mr. Stemle testified he does not agree with Mr. Haselden that T&D capacity benefits are only created when DSM programs alleviate capacity issues on specific circuits and that none of the Company's DSM programs target specific circuits, so avoided T&D costs should be set to zero. As Mr. Stemle testified, it is difficult to forecast which customers will use the Company's DSM programs and which circuits will be affected. As a result, using a system-wide average to estimate the T&D avoided cost is reasonable. This method assumes customers adopt DSM programs across the system in a manner that will result in load reduction across all circuits including those with and

without immediate capacity concerns, potentially extending expansion needs further into the future and extending the life of existing equipment. Mr. Stemle further testified that it is not reasonable to set avoided T&D costs to zero. EE programs reduce the energy power plants must produce, and as a result, reduce the T&D system capacity needed to transport electricity from power plants to customers. If EE measures reduce peak demands, it will reduce the necessity to replace T&D equipment because peak loads, at or near design capacity, reduce the life of T&D equipment. Mr. Stemle testified that it is more difficult and costly to build a DSM resource on a specific circuit in a short time period at exactly the time the resources will be needed to avoid a T&D expansion. Avoided T&D costs only available for circuits or substations that are in current need of expansion may not provide the time necessary for DSM to have an impact at that location.

E. Additional Evidence. At the September 8, 2020, evidentiary hearing, Petitioner entered into evidence Petitioner's Exhibit 14, Duke Energy Indiana's Response to the Commission's July 17, 2020 Docket Entry; and Petitioner's Exhibit 15, the November 8, 2019 Petition. Petitioner also entered into evidence Petitioner's Administrative Notice Exhibits 1 and 2, which were Scott Park's Rebuttal Testimony and Rebuttal Workpaper 1-SP in IURC Cause No. 45253, respectively. The CAC also entered into evidence the September 4, 2020, Stipulation of Facts and Evidence Between CAC and Duke Energy Indiana in lieu of CAC's cross-examination of Duke witnesses. The stipulated facts read as follows:

1. Duke plans to begin its 2021 Integrated Resource Plan ("IRP") stakeholder process in November 2020. Duke's 2021 IRP is currently due in November 2021.
2. Duke plans to hold a collaborative process for its Demand Side Management Oversight Board ("OSB") in the development of Duke's Market Potential Study ("MPS"). The MPS kick-off meeting was held on August 12, 2020. The MPS deliverable due date is in February 2021.
3. Duke projects incentivizing 230 heat pump water heaters over its 4-year DSM plan. Approximately 51% of DEI's residential customers use electricity for their main water heating energy.
4. Duke does not have a recent Evaluation, Measurement, and Verification report for its Low Income Weatherization Program. Pursuant to Petitioner's Exhibit 4-B, that process is set to begin in the first quarter of 2021.
5. Through the OSB process, CAC has reached out to Duke to address the issues with low goal achievement for Duke's Low Income Weatherization program. CAC and Duke attended a meeting with IHCDA on August 21, 2019, to discuss these issues. Following that meeting, CAC sent written recommendations to Duke for consideration. Some of these communications are attached and incorporated into this Stipulation of Facts and Evidence, although this does not represent the entirety of the activity to improve the program. CAC also continues to raise these issues at various OSB meetings.
6. The projected lost revenues pursuant to Petitioner's Corrected Exhibit 5-B for 2021-2026 is $66.7 million compared to $147 million in contemplated program costs for the proposed four year program cycle.

The following documents were also admitted into the record as evidence as part of this stipulation between CAC and Duke:

1. CAC's written communications to Duke with regard to Duke's Low Income Weatherization program;
2. Duke Energy Indiana OSB meeting minutes from the past 2 years;
3. Duke Energy Indiana's scorecards from 2012-2020;
4. "Load Forecast Before and After UEE" supporting Excel spreadsheet submitted by Duke as part of its 2018 IRP;
5. The Final Director's Report for Duke Energy Indiana's 2018-19 Integrated Resource Plan (May 5, 2020);
6. Final Order in IURC Cause No. 43955 DSM 7 (Feb. 26, 2020); and,
7. Rebuttal Testimony of Karen Holbrook in IURC Cause No. 43955 DSM 7 (prefiled on Dec. 18, 2019).

~~6~~5. Commission Discussion and Findings. Ind. Code § 8-1-8.5-10(h) states that beginning not later than calendar year 2017, and not less than one (1) time every three (3) years, an electricity supplier shall petition the Commission for approval of a plan. Petitioner requests approval of its Demand Side Management and Energy Efficiency Plan for 2020-2023, a four year plan rather than a three year plan despite the new DEI MPS due in February 2021 and the DEI 2021 IRP due in November 2021. Petitioner also requests ~~and~~ authority to recover direct and indirect program costs, a shareholder incentive, and lost revenues pursuant to Ind. Code § 8-1-8.5-10.

We apply a reasonable least-cost standard for issuances of certificates of public convenience and necessity under Ind. Code ch. 8-1-8.5. Both the DSM and IRP Rules were adopted to assist the Commission in implementing Ind. Code ch. 8-1-8.5. The IRP Rules require utilities to consider both supply and demand side resources to meet their long-term resource needs in a least-cost manner. The consideration of a utility's resource needs is performed through a long-range planning analysis, *i.e.*, the IRP. The Commission's rules at 170 IAC 4-8 ("DSM Rules") provide guidelines for the Commission to identify and address any bias against DSM. The DSM Rules also address cost recovery related to all DSM activities, including the subset of EE improvements.[4] Consequently, the Commission has historically considered and approved utility DSM programs and associated cost recovery under Ind. Code ch. 8-1-8.5 and its DSM Rules. *See e.g., Indianapolis Power & Light*, Cause No. 43623, Phase I Order (IURC Feb. 10, 2010), and *Indiana Michigan Power Co.*, Cause No. 44486 (IURC Dec. 3, 2014).

In 2015, the Indiana Legislature enacted Section 10 establishing that,

> Beginning not later than calendar year 2017, and not less than one (1) time every three (3) years, an electricity supplier shall petition the Commission for approval of a Plan that includes:

[4] EE improvements have been traditionally limited to activities that reduce energy use for a comparable level of energy service. 170 IAC 4-8-1(j) and Ind. Code § 8-1-8.5-9(c) and –l0(b). Whereas, a demand side resource is broader and encompasses any activity that reduces the demand for electric service, e.g., air conditioning load management, time-of-use, and DR programs.

(1) energy efficiency goals;
(2) energy efficiency programs to achieve the energy efficiency goals;
(3) program budgets and program costs; and
(4) evaluation, measurement, and verification procedures that must include independent evaluation, measurement, and verification.

Section 10(h). Once such a p~~P~~lan has been submitted, the Commission is required to consider the following ten factors enumerated in Section 10(j) to determine the overall reasonableness of the proposed p~~P~~lan:

(1) Projected changes in customer consumption of electricity resulting from the implementation of the plan.

(2) A cost and benefit analysis of the plan, including the likelihood of achieving the goals of the energy efficiency programs included in the plan.

(3) Whether the plan is consistent with the following:

(A) The state energy analysis developed by the commission under section 3 of this chapter.

(B) The electricity supplier's most recent long range integrated resource plan submitted to the commission.

(4) The inclusion and reasonableness of procedures to evaluate, measure, and verify the results of the energy efficiency programs included in the plan, including the alignment of the procedures with applicable environmental regulations, including federal regulations concerning credits for emission reductions.

(5) Any undue or unreasonable preference to any customer class resulting, or potentially resulting, from the implementation of an energy efficiency program or from the overall design of a plan.

(6) Comments provided by customers, customer representatives, the office of utility consumer counselor, and other stakeholders concerning the adequacy and reasonableness of the plan, including alternative or additional means to achieve energy efficiency in the electricity supplier's service territory.

(7) The effect, or potential effect, in both the long term and the short term, of the plan on the electric rates and bills of customers that participate in energy efficiency programs compared to the electric rates and bills of customers that do not participate in energy efficiency programs.

(8) The lost revenues and financial incentives associated with the plan and sought to be recovered or received by the electricity supplier.

(9) The electricity supplier's current integrated resource plan and the underlying resource assessment.

(10) Any other information the Commission considers necessary.

Following a determination of overall reasonableness by the Commission, Sections 10(k), (l), and (m) establish three possible actions the Commission may take concerning the proposed Plan. Consequently, beginning not later than calendar year 2017, electricity suppliers are statutorily required to submit an EE Plan to the Commission for approval.

Given this background, we begin by considering Petitioner's request for approval of its 2020-2023 Plan under Section 10.

A. Presentation of a Plan. The evidence is uncontroverted that Petitioner is an electricity supplier as defined by Section 10(a) and that it has made a submission under Section 10(h) seeking approval of a proposed Plan prior to 2017. Of note, however, is that Petitioner requests approval of a four-year plan, rather than a three-year plan, despite the fact that Petitioner has already begun a collaborative process with its OSB to conduct its new Market Potential Study ("MPS") due in just a few months, February 2021, and Petitioner's 2021 IRP process is about to begin with a due date in November 2021. Petitioner argues in support of a four-year Plan stating that, "During its last two portfolio filings, in order to allow adequate time for interested stakeholders to provide feedback on the Company's IRP and for Commission Staff review and acceptance, the Company has not been able to get[ ] its new portfolio plan approved prior to the current portfolio plan expiring…The filing of a four-year EE Plan should eliminate the need for the Company to request interim authority from the Commission to continue to offer its existing portfolio during the first year of the next portfolio plan." Direct Testimony of Mr. Duff at page 6. CAC, however, raised concerns about the length of this Plan, given Petitioner's substantial disagreements with CAC and the OUCC about certain programs and EE potential, and the possibility that many of these issues could be addressed collaboratively within the pending MPS and IRP processes. To approve a four-year DSM plan given these pending processes would likely short-circuit and undermine the opportunity for collaboration and the minimization of controversy. CAC noted that, while the OSB has the ability to modify, add, or discontinue programs within a ten-percent discretionary spending cap approved by the Commission, changes that exceed that margin could be warranted as markets change over four years (particularly with the new MPS supplanting the outdated prior MPS that has been a great matter of contention), and Petitioner might be reluctant to bring proposals for such changes to the Commission for approval if the Commission approves this four-year Plan. Thus, we agree that the four-year nature of this Plan is cause for concern.

~~However, t~~The evidence is also disputed as to whether Petitioner has submitted a Plan that ~~includes~~ meets all four of the ~~criteria required~~ defined requirements ~~by~~ in Section 10(h), i.e., goals, programs to achieve goals, budgets and program costs, and independent EM&V. As discussed later, it is also disputed as to whether Petitioner's Plan is reasonable overall as determined by the ten (10) factor test in I.C. § 8-1-8.5-10(j).

Commented [J2]: Should the Commission decide to approve the DSM plan despite CAC's objections, CAC requests in the alternative that the Commission limit the length of the DSM plan to 2021 or at most 2022, given the pending MPS and IRP process. As the Commission has repeatedly encouraged stakeholders to resolve DSM disputes outside of the litigated setting, approving a plan through the end of 2023 with these ongoing collaborative processes pending would short-circuit and undermine the opportunity for collaboration and the minimization of controversy.

Based on the evidence presented as discussed further below, we find that Duke Energy Indiana's 2020-2023 Plan ~~satisfies~~ falls short of the requirements of Section 10(h).

1. EE Goals. Section 10(c) specifically defines "energy efficiency goals" as:

> All energy efficiency produced by cost effective plans that are:
> (1) reasonably achievable;
> (2) consistent with an electricity supplier's integrated resource plan; and
> (3) designed to achieve an optimal balance of energy resources in an electricity Supplier's service territory.

Petitioner proposes EE goals to be achieved through its 2020-2~~2~~023 Plan that are expected to result in energy savings of approximately 1.18% of eligible retail sales for each year of four-year Plan, assuming 90% of eligible non-residential load has opted out of participation pursuant to SEA 340. Ms. Dean testified that most of the programs in this proposed EE Plan are the same as programs previously approved by this Commission, with the exception being the proposed Outdoor Lighting Program. Mr. Park explained Petitioner's process for developing its Plan and ~~to be consistent with~~ the EE goals established in its 2018 IRP. There are major issues in contention between Petitioner and CAC as it relates to whether Petitioner has met the definition of "energy efficiency goals".

First, CAC expert Mr. Grevatt examined the programs in the proposed EE Plan and presented evidence that much higher amounts of cost-effective savings are readily available and reasonably achievable. Many of these issues are likely to be addressed in the development of Petitioner's new MPS which has already begun and is set to be completed in an inclusive, transparent process with its OSB by February 2021. This underlies CAC's recommendation that Petitioner's Plan be rejected to enable the collaborative process to continue and to address the shortcomings Mr. Grevatt identified in the currently pending EE Plan (in the alternative, CAC recommended the Commission at least limit the length of the four-year Plan to two or at the most three years so as to not short-circuit and undermine this collaborative process).

In particular, Mr. Grevatt identified the following shortcomings in Petitioner's pending EE Plan: (1) Petitioner should increase the heat pump water heater midstream promotion to reasonable participation and savings volumes;[5] (2) Petitioner should increase promotion of high-efficiency heat pumps to replace electric resistance heat, particularly since Petitioner has an estimated 279,000 households with primary electric heat, over 50,000 of which are estimated to have primary electric resistance heat; (3) Petitioner should increase promotion of residential shell measures such as attic insulation and air sealing, especially given Petitioner's overreliance on the one-year measure life MyHER behavioral program which constitutes 57% of the total residential sector

[5] In lieu of cross-examination, Petitioner stipulated to the fact that it projects incentivizing 230 heat pump water heaters over its 4-year DSM plan, yet approximately 51% of DEI's residential customers use electricity for their main water heating energy. This indicates there is much potential for expanding the number of heat pump water heaters that can be incentivized and does not require much on the part of Petitioner since they already have this measure and incentive in place. It is simply expanding the forecast of and plan to incentivize and promote heat pump water heaters from 230 to thousands.

savings and 28% of the total annual portfolio savings; and (4) Petitioner should expand its promotion of non-residential lighting controls to prioritize networked lighting controls. Mr. Grevatt also noted the barriers CAC has continued to raise in its role on Petitioner's OSB that are preventing realization of its reasonable low-income weatherization program targets. CAC, in its role on Petitioner's OSB, has continually put forth suggestions, but Petitioner has heretofore not implemented those changes. Mr. Grevatt proposed that Petitioner use its EM&V process to help identify solutions to the issues with achieving the reasonable low-income weatherization program targets. As discussed below, Petitioner witness Ms. Dean did make several adjustments to the low-income weatherization program requirements that should help some with program participation, but CAC argued more should still be done and examined within the EM&V process.

Mr. Grevatt noted that Petitioner is projecting significant load growth in the coming years and emphasized that Petitioner should focus on promoting measures that are longer-lived, rather than sinking 57% of the total annual residential sector savings and 28% of the total annual portfolio savings into the one-year measure life MyHER behavioral program. Long-lived measures have a lasting ability to mitigate load growth, and thus have the potential to reliably reduce the need for costly energy and infrastructure investments that would ultimately be borne by customers. Considering DEI's overall energy efficiency ranking was 39th out of the 52 utilities in ACEEE's recent 2020 Utility Energy Efficiency Scorecard, there is much progress Petitioner could make in its EE performance. Mr. Grevatt did flag a serious issue with regard to a discrepancy in the load forecast used for the MPS versus the load forecast used for the 2018 IRP. The MPS used a "sales forecast based on DEI Spring 2017 forecast" which projects that "DEI electricity use is forecasted to increase by 21% from 2018 to 2042." CAC Exhibit 1, Attachment JG-2 (Attachment CAC 1.6-E, pp. 21-22). However, the 2018 DEI IRP forecast projects an increase of about 13.5% through 2038. DEI 2018 IRP, Volume 1, p. 112. DEI witness Mr. Stillman argues that one is before EE and the other is after, but the Commission does not find this convincing. The MPS load forecast is clearly before EE because otherwise it is nonsensical for use in an MPS; and because Table B.1 of the 2018 IRP is presenting the load forecast, not the load forecast after the selection of the EE selected in the preferred plan, it cannot be "after" EE either. The comparison of Table B.1 of the 2018 IRP and the MPS load forecast show that the IRP reaches retail sales of 31,600 GWh in 2038, while the MPS load forecast (Attachment CAC 1.6-E) reaches a very similar level, 31,654 GWh in 2042 or four years later. Therefore, it is not credible to argue that the cause of the difference in sales of 21% versus 13.5% is simply caused by comparing 2038 to 2042. The IRP sales forecast is always higher and, if it had been used in the MPS, it may have led to the identification of additional energy efficiency savings. Furthermore, DEI stipulated to the admission of a supporting Excel spreadsheet entitled "Load Before & After [Utility Energy Efficiency" which was submitted by DEI as part of its 2018 IRP, but this is entirely inconsistent with Table B.3 (energy requirements) in the 2018 IRP, raising further credibility issues on DEI's varying load forecast numbers. For example, system energy required in 2025 in Table B.3 is given as 33,104,261 MWh. However, modeled energy requirements in 2025 were 34,211,744 MWh. And, because it's the IRP forecast that is higher, if it were really after EE, then taking out the EE would make it higher still. EE serves to depress the load forecast not inflate it. This discrepancy raises serious questions about the veracity of Duke's entire 2018 IRP. We therefore agree with CAC that the difference in load forecasts used are unreasonable and that, especially in light of this information, Petitioner cannot make the case that the MPS is a reliable characterization of EE potential or the DSM Plan "results from a well-developed and reasoned IRP".

~~The~~ CAC raises several issues with Petitioner's IRP insofar as CAC expert Ms. Sommer participated in Petitioner's 2018 IRP stakeholder process and examined the manner in which Petitioner reconciled its 2018 IRP with its proposed DSM plan in this Cause. Ms. Sommer found (1) Petitioner's energy efficiency bundles are unreasonably high in cost and suffer from other flaws that prevent the selection of the optimal portfolio of energy resources, especially a greater selection of low-cost energy efficiency measures; (2) Petitioner applies its reserve margin requirement to all months of the year rather than just the Midcontinent Independent System Operator ("MISO") coincident peak; (3) Petitioner requires the model to self-supply capacity in all months of the year rather than purchase from other utilities; (4) Petitioner tries to solve the problem of its model selecting unrealistic amounts of market purchases by imposing a hurdle rate on these purchases; (5) coal unit retirements of Petitioner's existing pulverized coal units are unnecessarily limited in 2024 or later; (6) significant build constraints were placed on renewables without reasonable support for those assumptions; (7) wind and solar costs are modeled at higher prices than are justifiable; (8) Petitioner uses a $5/MWh adder for new solar resources based on a study for Petitioner's Carolina service territory that has no relevance to Indiana and that was rejected by the North Carolina Utilities Commission; and (9) Petitioner uses an unrealistically low capital cost for gas combined cycled units. She concludes that ~~with Ms. Sommer arguing that it is a flawed IRP because, *inter alia*, (1) modeling costs are inconsistent with Petitioner's actual costs of implementing energy efficiency; (2) the use of incorrect transmission loss figures to translate savings from the meter to the generator; and (3) lack of an avoided transmission and distribution estimate in the selection of energy efficiency. Ms. Sommer argues that~~ Petitioner's Plan likely would have selected significantly more cost-effective energy efficiency if the issues she raised were addressed.

Petitioner argues that, "In evaluating whether a utility's EE goals are reasonably achievable, we look to the results of the Utility's IRP." Petitioner's Proposed Order at 40. This, however, fails to recognize that the IRP, as well as the MPS, may be outdated or irredeemably flawed and thus "the results" offer a poor basis upon which to judge whether the EE goals are what is truly reasonably achievable.

CAC showed that there were also flaws specifically in the way Petitioner modeled energy efficiency, including (1) modeling costs inconsistent with Petitioner's actual costs of implementing energy efficiency; (2) the use of incorrect transmission loss figures to translate savings from the meter to the generator; and (3) the lack of an avoided transmission and distribution ("T&D") estimate in the selection energy efficiency. We take each of these issues in turn.

First, Petitioner's modeled costs for energy efficiency programs in its 2018 IRP are substantially higher than its forecasts costs for its actual DSM programs. CAC and Petitioner disputed the levelized costs of Petitioner's EE bundles in the 2018 IRP compared to the levelized costs of Petitioner's DSM programs. The crux of the argument is that it would be unreasonable and unfair to the modeling of EE if Petitioner is using substantial higher costs in its IRP, unduly biasing against the selection of EE and in favor of supply-side investments. CAC found that Petitioner's costs in the IRP were often twice as high or more than the levelized costs of Petitioner's DSM programs. In rebuttal, Mr. Park presented an alternative calculation that showed a smaller discrepancy between the numbers; however, upon further examination of Mr. Park's

analysis, it appears he included Shared Savings performance incentives in his calculation of the DSM program levelized costs, which would be improper in creating an apples-to-apples comparison. Those incentives represent at much as 22% of total annual program costs used in Mr. Park's levelization calculations. Comparing the levelized cost between the DSM programs and the IRP EE bundles is a useful exercise and helpful to determine if Petitioner's EE bundle costs were too high. Simply put, more EE is cost-effective and available than was selected in the IRP, and this Commission does not have an accurate depiction of the level of DSM that ought to be properly contained in the IRP's preferred plan.

Next, CAC presented evidence that Petitioner did not use the correct line loss for translating savings at the meter to savings at the generator. Since EE always saves energy at the margin because T&D losses are greater at the margin than on average, it is unreasonable that Petitioner did not convert energy savings from the meter using marginal line loss. Using the marginal line loss, rather than average line loss, would increase modeled savings by about 10% each year or more. In response to Ms. Sommer's concern about the level of transmission losses used in the analysis of EE in the IRP, Mr. Park responded that the avoided losses should be average and not marginal, because "savings due to energy efficiency occur during all hours, as opposed to the peak, using average losses is more appropriate." Mr. Park glosses over the fact that by definition energy efficiency reduces demand on the margin and that, (as described in the Regulatory Assistance Project paper cited in Ms. Sommer's Direct testimony) losses are determined by a formula basic to electrical engineers, i.e. I^2R. "I" is amperage (or current) which is directly a function of demand. So as demand increases linearly, losses increase exponentially. And because energy efficiency always reduces consumption on the margin, the marginal losses will always exceed average losses. Mr. Park's argument about location somehow mattering to this calculation is a red herring. If the Company can calculate average system losses, it should be able to calculate system marginal losses with the same degree of accuracy. Location is no more or less important to the determination of average losses than it is to the determination of marginal losses.

Last but not least, CAC demonstrated that Petitioner omitted the avoided T&D costs when assessing the economically optimal level of energy efficiency in the 2018 IRP in contravention of the requirements in the Commission's IRP rule. 170 IAC 4-7-8(c)(6) explicitly requires that the IRP must include, "An evaluation of the utility's DSM programs designed to defer or eliminate investment in a transmission or distribution facility, including their impacts on the utility's transmission and distribution system." As even Petitioner argued in Cause No. 43955 DSM 7,[6] and this Commission confirmed, energy efficiency can defer or avoid T&D investments in meaningful ways. Thus, its avoided cost for this purpose ought to be included in the evaluation of energy efficiency, and Petitioner's EE bundle costs should have been adjusted downward to account for this benefit.

Duke argues that Mr. Park's performance of a sensitivity analysis in his rebuttal testimony which reduced the costs of energy efficiency by 20% to act as a proxy for including explicit T&D avoided costs in the IRP analysis showed a very similar of amount of EE bundles and savings were selected. But Mr. Park does not explain why 20% is an appropriate adjustment for avoided T&D

[6] Petitioner witness Ms. Holbrook's 43955 DSM 7 rebuttal testimony stipulated into evidence in this proceeding is also at odds with Mr. Park's statements on this matter, weighing in our decision against Petitioner here.

costs and ignores the fact that the avoided T&D cost would not apply equally to all EE bundles. The EE bundles have different load shapes and, as such, those that provide more capacity would have a greater reduction in cost than those that provide less. Furthermore, as described previously, because the EE bundle costs were overstated already, it is not surprising that the model would continue to not pick those bundles.

To put it simply, we are concerned that energy efficiency was shorted in the 2018 IRP modeling because of the totality of thumbs on the scale against this resource not solely because of any one factor.

Based on the evidence presented, we find that Petitioner did not allow its optimization model the opportunity to evaluate supply-side and demand-side in a consistent and comparable manner. As such, it is not only probable but likely that there are other portfolios that would result in lower cost plans that have not yet even been identified by Petitioner. DSM Plan energy savings goals must "result[] from a well-developed and reasoned IRP that evaluates the appropriate balance of new supply-side and demand-side resources taking account of risks and uncertainty." Cause No. 43955 DSM 3, Final Order at 45. The balance of supply and demand side resources appears to be based on Petitioner's preferences only in the 2018 IRP. We addressed a similar situation in a past NIPSCO Section 10 filing wherein "NIPSCO's risk and uncertainty analysis was too constrained and failed to provide sufficient explanation for its analysis of chosen energy resources." (Cause No. 44634, pp. 33-34.) What Petitioner did cannot reasonably be construed as optimization; therefore, we find that Petitioner cannot demonstrate that its Plan is designed to achieve an optimal balance of energy resources with a reasonably achievable amount of EE.

~~The goals established pursuant to Section 10 should be consistent with and based on needs shown in the IRP. EE goals must also be consistent with the utility's IRP.~~

~~To model EE in its IRP, Petitioner grouped the energy efficiency measures by the hourly energy savings profile and bundled them in a manner that allowed for economic selection. As Mr. Park explained, EE was modeled as a fixed profile multi-year resource that includes an hourly profile. Mr. Park also addressed the appropriateness of including a carbon tax in its IRP modeling process. Petitioner's 2018 IRP concluded that DSM at a level of 1.18% of eligible retail sales was cost-effective.~~

~~As the Company explained in its response to our Docket Entry requesting information as to how avoided T&D costs were incorporated in the IRP optimization process, Petitioner responded that the these costs were given to the vendor who performed the MPS, which then uses this information as part of the total avoided costs used in economic screening of EE measures, which are then provided to the IRP team to use in its optimization process. Additionally, Petitioner explained that the sizes of the EE bundles are grossed up by the amount of average losses to the generator level which is done to put EE bundles on par with other generating resources. Additionally, Mr. Park performed a sensitivity analysis in his rebuttal testimony which reduced the costs of energy efficiency by 20% to act as a proxy for including explicit T&D avoided costs savings in the IRP analysis. Such analysis demonstrated that a very similar amount of EE bundles and savings were selected to that proposed by Duke Energy Indiana herein, rebutting Ms. Sommer's conclusion that significantly more EE would be selected.~~

~~Based on the evidence presented, we find that Petitioner's DSM Plan has a reasonable and proven mix of cost-effective programs for all participating customer classes that is consistent with its IRP. We further find that the portfolio is reasonably achievable and designed to achieve an optimal balance of energy resources in an electricity Petitioner's service territory.~~

2. EE Programs. The 2020-2023 Plan includes nine residential and four non-residential programs designed to achieve the set EE goals. The intervenors raised various issues with individual programs~~, primarily concerned with whether Petitioner is spending enough, or spending too much, or whether a program should include specific measures or whether a program should not include a specific measure~~.

The OUCC expressed concerns with Petitioner's proposed lighting measures, recommending that the Commission establish January 1, 2021 as the effective date for considering LEDs as the baseline for programs containing GSLs. The OUCC also raised concerns with proposed Outdoor Lighting Program, including the calculation of its cost-effectiveness score, the proprietary of earning a shareholder incentive on a fixture that is Company owned, and recommended accounting treatment for the changed-out fixtures.

~~The CAC recommended that the Company increase certain measures within its portfolio and look to improve its low-income weatherization program.~~

As already discussed above, Mr. Grevatt ~~also~~ raised issues with Petitioner's MyHER program, arguing that the portfolio is too reliant on this single behavioral program that is a very short-lived measure life of one (1) year and the least cost-effective of the programs in Petitioner's residential sector portfolio. In fact, this one behavioral program comprises 57% of the total annual residential sector savings, equating to 28% of the total annual portfolio savings. Mr. Grevatt noted that the savings MyHER provides for individual customers are almost negligible, and not a useful tool for helping customers manage their energy bills. Mr. Grevatt found that the savings will not endure in a way that will help mitigate the Company's projections for load growth in the residential sector. Petitioner over-reliance on MyHER is to the detriment of other programs, such as the Smart $aver Residential program, and does not sufficiently promote the longer-lived measures it offers. As discussed above, Mr. Grevatt found cost-effective and reasonably achievable savings at Petitioner's feet: (1) Petitioner should increase the heat pump water heater midstream promotion to reasonable participation and savings volumes given that Petitioner projects incentivizing only 230 heat pump water heaters over its 4-year DSM plan when approximately 51% of DEI's residential customers use electricity for their main water heating energy; (2) Petitioner should increase promotion of high-efficiency heat pumps to replace electric resistance heat, particularly since Petitioner has an estimated 279,000 households with primary electric heat, over 50,000 of which are estimated to have primary electric resistance heat; (3) Petitioner should increase promotion of residential shell measures such as attic insulation and air sealing, especially given Petitioner's overreliance on the one-year measure life MyHER behavioral program which constitutes 57% of the total residential sector savings and 28% of the total annual portfolio savings; and (4) Petitioner should expand its promotion of non-residential lighting controls to prioritize networked lighting controls. Mr. Grevatt also noted the barriers CAC has continued to raise in its role on Petitioner's OSB that are preventing realization of its reasonable low-income weatherization program targets.

Based on the evidence presented, we find that Petitioner's DSM Plan does not have~~has~~ a reasonable mix of measures and is overly reliant on a single residential program that is the least cost-effective in the residential portfolio~~reasonably considers cost effectiveness~~. The record reflects that Petitioner has already begun a collaborative process with its OSB to conduct its new Market Potential Study ("MPS") due in just a few months, February 2021, and Petitioner's 2021 IRP process is about to begin with a due date in November 2021. Given Petitioner's substantial disagreements with CAC and the OUCC about certain programs and EE potential, and the possibility that many of these issues could be addressed collaboratively within the pending MPS and IRP processes, we do not find it prudent or reasonable to approve the Plan as it stands today, particularly given Petitioner's request for a four-year plan which would likely short-circuit and undermine the opportunity for collaboration and minimization of controversy in the IRP and MPS development process. ~~Petitioner's MyHER program is reasonable as a significant portion of the residential portfolio because it increases customer motivation and engagement and the EM&V shows that these customers are 50% more likely to have made past and future equipment purchases and the program drives participation in other programs. As to its low-income program, in her rebuttal testimony, Ms. Dean proposed to remove the average health and safety requirement of $250, proposed to increase the health and safety cap to $750 and to add renters as eligible participants. We decline Mr. Haselden's proposal to establish January 1, 2021 as the effective date for considering LEDs as the baseline for programs containing GSLs and instead encourage Petitioner to follow DOE guidance. Finally, we approve Petitioner's inclusion of its Outdoor Lighting Program as it will provide an incentive for Petitioner's customers to upgrade to more energy efficient lighting.~~

3. Program Budgets and Costs. Ms. Dean identified the annual budget associated with the Plan and the costs associated with each of the programs, for a total of $147,249,627, exclusive of a financial incentive and lost revenues. Mr. Duff testified that this amount includes direct and indirect costs, customer incentives and EM&V. The Company proposed no changes to its OSB's~~, which has~~ authority to approve new programs without seeking additional approval from the Commission if those program budgets are within the 10% spending cap previously approved for existing programs' approved budgets. Given our rejection of the EE Plan, ~~The~~ the Commission ~~approves~~ denies Petitioner's program budget as stated in Mr. Duff's direct testimony, but will allow for the continuation of authority to deliver programs and recovery costs as provided for in the prior DSM plan proceeding, Cause No. 43955 DSM 4 until such time as Petitioner can work with its OSB to refile a new EE plan.

4. Independent EM&V. Ms. Williams also explained that the EE Plan includes EM&V with a process for independent evaluation of the programs. CAC raised issues with regard to Petitioner's proposed Low-Income Weatherization program, which is essentially unchanged from prior years despite ongoing under-performance. While Petitioner made some changes in Rebuttal to attempt to address the shortfalls and improve participation, which are appreciated by CAC, CAC asserts more must be done and EM&V should provide assistance and strategies in improving program performance. We agree and encourage Petitioner to work with CAC on this matter to conduct research and analysis to gain an understanding of the barriers to success, and to then develop solutions to address those barriers. From the Stipulation of Facts and Evidence in lieu of cross-examination of Petitioner's witnesses, Petitioner admitted that it does not have a recent EM&V report for this program, but the process is set to begin in the first

quarter of 2021. Besides this issue, ~~No~~ no party raised any issues with Petitioner's EM&V process and therefore we approve. Petitioner shall continue to file its EM&V reports as they are completed.

~~A.~~**B. Reasonableness of the Plan.** Having determined that Petitioner has not submitted an EE Plan that meets the requirements and definitions in ~~as required by~~ Section 10(h), the Commission need not consider Section 10(j) ~~identifies 10~~ factors ~~the Commission must consider in determining~~to determine its overall reasonableness, but will do so to offer additional guidance to Petitioner. ~~For the reasons set forth below, we find that Petitioner's 2020-2023 Plan is reasonable and should be approved.~~

1. Projected Changes in Customer Consumption. Petitioner's ~~demonstrated~~ stated that the energy savings resulting from the Plan in conjunction with its load forecast in its 2018 IRP enable ~~us~~ the Commission to consider projected changes in customer consumption of electricity resulting from implementation of the Plan. As discussed earlier in this Order, however, we are seriously concerned about the difference in the MPS and 2018 IRP load forecasts. Rectifying just this issue would have likely led to the identification of additional energy savings. The significant concerns about Petitioner's load forecast discrepancies weigh against a finding of reasonableness under this factor. ~~Because we find that Petitioner's proposed programs are cost-effective and designed to result in energy savings of 1.18% of eligible retail sales each year over the four-year period of the Plan, we expect a corresponding decrease in customer consumption of electricity compared to what it would be without the programs. Although the CAC argued that Petitioner should and could do more, no party provided any evidence to the contrary regarding changes in customer consumption. Petitioner's EE goals are approved as stated in the table below:~~

~~Duke Energy Indiana Projected Energy Savings (MWh Gross Savings @Plant)~~				
	~~020~~	~~021~~	~~022~~	~~023~~
~~otal~~	~~03,310~~	~~07,105~~	~~14,947~~	~~13,247~~

2. Cost-Benefit Analysis. Petitioner evaluated the cost-effectiveness of its proposed DSM programs using the standard UCT, TRC, RIM, and Participant Tests. Ms. Williams explained the purpose of the various tests and provided the test results for each of Duke Energy Indiana's proposed programs. All of the programs passed the UCT and TRC Tests, except the Low-Income Weatherization and Low-Income Neighborhood programs. All programs in which participants face an incremental out-of-pocket cost also passed the Participant Test. Although the total portfolio passes the RIM Test, most of the individual EE programs did not. Petitioner's Portfolio Plan has been informed by the MPS performed by Nexant, as well as, the actual market experience of Petitioner's knowledgeable team of program managers creating a high-level of confidence that the Plan is achievable. The calculation of the overall portfolio cost and benefit analysis was performed utilizing the UCT with a score of 3.60 meaning the benefits are 360% of the costs of the Portfolio Plan over the four years. Petitioner's Exhibit 1-A.

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This Commission, as well as other state utility Commissions, has traditionally required the use of the UCT, TRC, RIM and Participant Tests in evaluating the cost-effectiveness of DSM programs. In fact, the Commission's IRP rule at 170 IAC 4-7-7 requires the use of at least one of these four tests, or any other test the Commission may find to be reasonable, when evaluating DSM resource options. As noted by the parties, each of these tests is designed to compare various costs and benefits from a different perspective. The TRC Test helps determine whether EE is cost-effective overall, whereas the PCT, UCT, and RIM Tests help to determine whether the program design and efficiency measures provided by the program are balanced from the perspective of the participant, utility, and non-participants, respectively. The purpose of applying several different tests is to provide a more comprehensive analysis of the cost-effectiveness than that which can be accomplished with just one of the tests. Hence, consideration of multiple cost-effectiveness tests allows us to better evaluate the reasonableness of individual programs and the overall DSM portfolio as a whole.

The OUCC raised several issues with Petitioner's cost benefit analysis. Specifically, Mr. Haselden argues that Petitioner does not model the benefits of avoided capacity correctly because the Company does not take into consideration when capacity is avoided. Mr. Haselden would have the utility look to when capacity is needed and then include avoided capacity only in those years when capacity is actually avoided. If the Commission adopted the OUCC's approach, an electric utility who offers EE would frequently need to change the avoided costs used to analyze its programs and would not offer a consistent set of EE programs solely based on capacity needs. We reject this approach.

The OUCC also argued that Petitioner should not include a carbon tax in its energy costs when calculating benefit/costs tests because a carbon tax does not currently exist. We find that Duke Energy Indiana reasonably assumed a carbon cost beginning in 2025, which is a reasonable projection of when such costs may become a reality. Therefore, we reject this recommendation.

The OUCC further argued that Petitioner's values for avoided T&D costs were unreasonable and that Petitioner has no evidence to support its assumptions concerning any relationship between DSM and avoided T&D costs. Mr. Haselden recommended that avoided T&D costs be set to zero absent actual evidence presented. In response, Mr. Stemle provided rebuttal testimony that explained the T&D values were the same as previously approved with an industry recognized escalation. Mr. Stemle also explained that the Company used a system-wide average to estimate avoided T&D costs, and that the Company's results were within the range of reasonable values used by other utilities, citing The Mendota Group, LLC's, October 23, 2014 report titled, "Benchmarking Transmission and Distribution Costs Avoided by Energy Efficiency Investments for Public Service Company of Colorado", Petitioner's Exhibit 13-A. As such we find Petitioner's approach reasonable.

The OUCC also argues that Petitioner did not correctly calculate the RIM and TRC Tests as Petitioner did not include the shareholder incentive and lost revenues. The Commission addressed this issue in Cause No. 43955 DSM-4 and found that the cost benefit analysis of the Plan does not require a comparison of the program costs as defined in Section 10(g) to include program costs and lost revenues.

Based on the evidence presented, we find that Petitioner has demonstrated that its proposed 2020-2023 Plan is reasonably cost-effective.

3. Consistent with State Energy Analysis and Utility IRP. Ind. Code § 8-1-8.5-3 requires the Commission to develop, publicize, and keep current an analysis of the long-range need for the expansion of electric generation facilities and sets forth certain requirements that the analysis must include. The most recent staff report on the Commission's analysis under I.C. § 8-1-8.5-3 is contained in the 2018 Report on the Statewide Analysis of Future Resource Requirements for Electricity.[7] The proposed EE Plan is consistent with the statewide analysis as presented in that report. Petitioner provided SUFG information regarding its DSM/EE programs and performance levels. Given that the SUFG's energy analysis reflects information provided by Petitioner, the DSM Plan is consistent with the state energy analysis. As discussed earlier in this Order, we take issue with Petitioner's 2018 IRP, as well as its current MPS, as they are irredeemably flawed and thus "the results" offer a poor basis upon which to judge whether the EE goals and EE Plan are what is truly reasonably achievable or offer the optimal balance of energy resources. The significant concerns about Petitioner's 2018 IRP weigh against a finding of reasonableness under this factor. ~~find that Petitioner's 2020-2023 Plan is consistent with its 2018 IRP and the state energy analysis.~~

4. EM&V. Evaluation for all programs in the Plan will be conducted by independent evaluators. Ms. Williams testified that the independent evaluators would perform a process evaluation and an impact evaluation. Ms. Williams described the process and rigor that Petitioner applies to its EM&V. She presented a current schedule of EM&V timelines. Ms. Williams testified that Petitioner will continue to file its EM&V reports as required in Cause Nos. 43955 DSM-2 and DSM-4. As discussed above, CAC raised issues with regard to Petitioner's proposed Low-Income Weatherization program, which is essentially unchanged from prior years despite ongoing under-performance. While Petitioner made some changes in Rebuttal to attempt to address the shortfalls and improve participation, CAC asserts more can be done and EM&V should be done to provide assistance and strategies in improving program performance. We agree and encourage Petitioner to work with CAC on this matter to conduct research and analysis to gain an understanding of the barriers to success, and to then develop solutions to address those barriers. From the Stipulation of Facts and Evidence in lieu of cross-examination of Petitioner's witnesses, Petitioner admitted that it does not have a recent EM&V report for this program, but the process is set to begin in the first quarter of 2021.

Based on the evidence presented, we find that Petitioner's proposed EM&V procedures to independently verify the results of its proposed programs, and the estimated EM&V costs are reasonable. Petitioner shall continue to file its EM&V reports as completed.

5. Undue or Unreasonable Preference to Customer Classes. Petitioner's portfolio of programs offers a broad set of programs and measures for both residential and non-residential customers. It features a variety of delivery channels to ensure that interested

[7] Available at: https://www.in.gov/iurc/files/2018%20Report%20on%20the%20Statewide%20Analysis%20of%20Future%20Resource%20Requirements%20for%20Electricity.pdf

customers have an opportunity to participate. As discussed above, however, serious issues exist with regard to Petitioner's overreliance on the MyHER residential behavioral program, which has a very short-lived measure life of one (1) year and is the least cost-effective of the programs in Petitioner's residential sector portfolio. In fact, this one behavioral program comprises 57% of the total annual residential sector savings, equating to 28% of the total annual portfolio savings. CAC witness Mr. Grevatt noted that the savings MyHER provides for individual residential customers are almost negligible, and not a useful tool for helping customers manage their energy bills. Mr. Grevatt found that the savings will not endure in a way that will help mitigate the Company's projections for load growth in the residential sector. Petitioner over-reliance on MyHER is to the detriment of other programs, such as the Smart $aver Residential program, and does not sufficiently promote the longer-lived measures it offers. We find this weighs heavily against a finding of reasonableness for this factor. ~~The costs have been appropriately allocated to customer rate calculations consistent with accepted ratemaking practices. *See* Petitioner's witness testimony of Ms. Dean, Williams, and Lilly. There was no evidence presented identifying any undue or unreasonable preference to any customer class resulting, or potentially resulting, from the implementation of a proposed program or from the overall design of the Plan, and we find none.~~

6. Stakeholder Comments. This provision simply requires the Commission to consider comments provided by customers, customer representatives, the OUCC, or other stakeholders concerning the adequacy and reasonableness of the 2020-2023 Plan. As Petitioner witness Ms. Dean testified, in preparation of the Portfolio Plan, the Company presented the results of its MPS performed by Nexant with its OSB for input on February 8, 2018. Petitioner also met with the OUCC and CAC to discuss the proposed Portfolio Plan for feedback prior its filing with the Commission but failed to demonstrate that Petitioner incorporated any of that feedback into its filing. Furthermore, the OUCC and CAC provided comments through the evidence they presented in this proceeding, which the Commission has considered and addressed in making its determinations in this Order.

7. Effect or Potential Effect of the Plan on Electric Rates and Customer Bills of Participants and Non-participants. Petitioner provided evidence of the short-term bill impacts on customers, as well as, various cost-effectiveness tests, some of which are designed specifically to evaluate the long-term effect of the proposed programs on the electric rates and bills of both participating and non-participating customers. Ms. Lilly testified that the short-term effect for participating customers is reduced energy consumption, which can result in lower energy bills. The projected long and short-term impact on customer rates and bills for both program participants and non-participants have been considered and presented in the Petitioner's case-in-chief. In addition to the calculation and presentment of the projected EE/DSM Rider rates, Petitioner has evaluated each program under the PCT and RIM Test to assess the impact it is projected to have on the rates and energy bills of participating and non-participating customers. *See* Petitioner witnesses, Ms. Lilly and Williams' testimony.

Based on Petitioner's estimated impact information along with the results of the cost-effectiveness tests, we find that effects or potential effects of the Plan on electric rates and customer bills of participants and non-participants to be reasonable.

8. Lost Revenues and Financial Incentives. If the Commission finds that an electricity supplier's EE Plan is reasonable, Section 10(o) requires us to allow an electricity supplier to recover the following:

(1) Reasonable financial incentives that:
(A) encourage implementation of cost-effective energy efficiency programs; or
(B) eliminate or offset regulatory or financial bias:
(i) against energy efficiency programs; or
(ii) in favor of supply side resources.
(2) Reasonable lost revenues.

We must consider whether Petitioner's request for financial incentives and lost revenues associated with EE programs are reasonable.

A. Lost Revenues. The Commission must allow recovery of the lost revenues it determines are reasonable. This could be lost revenue recovery up to the earlier of measure life or a base rate case, or some other level of lost revenue recovery that is supported by evidence and thought out by the Commission to be reasonable.

Petitioner seeks approval of lost revenue cost recovery for the life of the measure of the programs approved in its Plan, consistent with the Commission's prior approval in DSM-4. Petitioner's Corrected Exhibit 5-B, sponsored by Ms. Holbrook, shows the lost revenue amounts of each program by year. The projected lost revenues pursuant to Petitioner's Corrected Exhibit 5-B for 2021-2026 is $66.7 million compared to $147 million in contemplated program costs for the proposed four-year program cycle. Duke's proposed lost revenue recovery would be equal to 45% of program costs, assuming Duke has a rate case in 2027. The amount of lost revenues Duke would collect would be greater if there is not a rate case implemented in 2027.

The OUCC recommends that the Commission deny lost revenues for the Outdoor Lighting program, but otherwise does not raise concerns with Petitioner's proposed lost revenue recovery.

Mr. Grevatt recommend that lost revenues be capped at three years or measure life, whichever is less.

Petitioner argued that EM&V is the most established approach to reasonably estimating energy savings and lost revenues associated with EE programs, and thus alleviates any concern with regard to the length of recovery of lost revenues. But, this misses the point. Petitioner's lost revenue proposal transfers risk to customers that would otherwise rest with the Company, because customers will be forced to pay regardless of any changes that affect sales volumes. Such a position would allow the Commission to reduce utilities' risk without also reducing the utilities' rewards. Crucially, the future adoption of energy efficiency—beyond a couple of years—is not reliably predictable, and thus cannot be captured in the lost revenue calculations. The amount of money Petitioner collects through base rates is dependent on a lot of variables, including weather, economic conditions, behavior, etc., while the amount Petitioner collects in lost revenues through the DSM tracker once measures are installed is not dependent on any of those variables. Trackers are useful to allow the utility to recover expenditures of EE in between base rate cases, but are not

a substitute for base rate cases. Petitioner recently concluded a base rate case with Cause No. 45253; however, Petitioner's prior base rate case in Cause No. 42359 with a test year ending on September 30, 2002. The Commission finds it would be unreasonable to allow for lifetime lost revenue recovery, given Petitioner's infrequent base rate case history. The prolonged use of trackers without the benefit of a base rate case is unfair to ratepayers in that the utility can raise rates when their costs may have increased without looking at where their costs have decreased. Furthermore, lifetime lost revenue recovery without frequent base rate cases has no transfer of risk to Petitioner and keeps all risk on Petitioner's customers. In the absence of requiring a base rate case at least every four years, the Commission recognizes that the amount of lost revenue the utilities recover should be limited.

~~Petitioner's approach appears reasonably designed to ensure it recovers only the lost revenues that EM&V can establish, with a high degree of confidence, will result from savings driven by EE measures. Although we recognize that EM&V degrades over time based on accumulated changes, this degradation is built into the EM&V process. The CAC offered no basis on which we could make factual findings that a three-year cap, or any other limitation, would allow Petitioner to recover reasonable lost revenues. It is inherent that energy savings validated by EM&V will create lost revenues. Consequently, cost-effective EE programs should have lower program costs with larger energy savings, which does result in higher lost revenues relative to program costs.~~

Therefore, ~~because Petitioner has EM&V in place to verify EE impacts,~~ this Commission finds that capping lost revenue recovery to three years or ~~for~~ the life of the measure, whichever is shorter, for Petitioner's EE programs is appropriate, particularly considering that lost revenue recovery is meant to be a short-term solution to address revenue loss in between base rate cases and the infrequent nature by which Petitioner files base rate cases (nearly twenty years between Petitioner's last two base rate cases). Our conclusion is consistent with the Commission's DSM Rules at 170 IAC 4-8 and Section 10's requirement that lost revenue recovery be reasonable~~EM&V are included in any EE Plan~~. ~~Section 10(o) similarly recognizes the importance of subjecting lost revenues to EM&V.~~ This weighs heavily against finding the EE Plan as reasonable overall.

B. Performance Incentives. Section 10(o) authorizes the Commission to award reasonable financial incentives when it finds a Plan to be reasonable. The DSM Rules at 170 IAC 4-8-7(a) also recognize the role of reasonable performance incentives to encourage the implementation of DSM programs by addressing financial bias against such programs. Petitioner requests approval to earn a performance incentive on all programs except its Low-Income Weatherization program. Petitioner also requests that its proposed performance incentive mechanism, which is based on the performance of the portfolio of programs measured in terms of its actual, independently verified, net energy and demand savings compared to projected net energy and demand savings, be effective for all eligible programs offered to customers during 2020-2023.

Petitioner is proposing a shared savings tiered-incentive structure based on energy saving achievements for the portfolio for each program year, as measured by EM&V, such as was previously approved by the Commission in its December 28, 2017 Order in DSM-4. Under its

approved shared savings incentive structure in DSM-4, Petitioner's proposed incentive structure is as follows:

Performance Incentive (Shared Savings)	
Achievement Level (KWH)	**Incentive Level (% of NPV of UCT net benefits)**
110% or more	**10%**
100-109.99 %	**8%**
90-99.99 %	**7%**
80-89.99 %	**6%**
75-79.99 %	**5%**
0-74.99 %	**0%**

Petitioner also requests a modified financial incentive for is Low-Income Neighborhood Program. This program is not cost effective under the UCT, but does pass the PCT. The proposed financial incentive for this program is tied to the NPV of the avoided costs.

The OUCC proposed an alternative performance incentive in which the utility earns an enhanced ROE on the foregone supply-side investment discounted to the year the DSM measures are deployed. The CAC raised no substantive issues with Petitioner's proposed performance incentive so long as lost revenues are limited.

The OUCC argued that approving a financial incentive for the Low-Income Neighborhood and the Outdoor Lighting Programs would not be appropriate. As to the Low-Income Neighborhood Program, Mr. Haselden argued that a financial incentive is prohibited by 170 IAC 4-8-3 (c) and 170 IAC 4-8-7 (e). In rebuttal, Mr. Duff distinguished this program from those prohibited by the Commission rules cited by the OUCC. The OUCC argued that the Outdoor Lighting Program should not be eligible for a financial incentive as Petitioner earns a return of and on the lighting fixtures that are Company owned. In rebuttal, Ms. Dean indicated that this incentive will reduce the Company's disincentive to implement this type of program.

Both Section 10(o)(1) and the DSM Rules at 170 IAC 4-8-7 authorize the Commission to approve reasonable performance incentives to encourage the implementation of DSM programs to address the regulatory or financial bias against such programs. Petitioner has sufficiently demonstrated that its Plan and proposed DSM programs are reasonable and that its EE goals are consistent with its 2018 IRP and designed to achieve an optimal balance of energy resources in its service territory. Further, Section 10(o) mandates the Commission authorize reasonable financial incentives when it approves an EE Plan as reasonable.

We find Petitioner's proposed performance incentive, consistent with the performance incentive we ordered in Cause No. 43955 DSM-4, to be a proper performance incentive. As a financial incentive is designed to encourage implementation of energy efficiency, we also approve a financial incentive for the Outdoor Lighting program, as this program is no different from any other cost effective EE program that incentivizes customers to take on additional expense in order to become more energy efficient.

9. Petitioner's IRP. The Plan's consistency with Petitioner's IRP and underlying resource assessment was discussed above.

C. Program Cost Recovery. Petitioner requests that it be authorized to recover program costs through its approved DSM Rider. Section 10 provides that once an electricity supplier's EE Plan is approved, the Commission shall allow the electricity supplier to recover all associated program costs on a timely basis through a periodic rate adjustment mechanism. Section 10(k)(2). The DSM Rules also provide authorization for the recovery of such program costs. 170 IAC 4-8-5. Having ~~found~~ denied Petitioner's 2020-2023 Plan ~~to be reasonable in its entirety~~, we deny this request. However, during the reasonable time following the date of this Order in which Petitioner is working with its OSB to refile an EE plan and until such time the Commission issues a subsequent Order approving a new, revised EE plan, it shall continue its interim authority, including that cost recovery, under the authority granted in Cause No. 43955 DSM 4. ~~therefore find that Petitioner shall be authorized to recover its associated program costs.~~

D. Oversight and Stakeholder Input. Petitioner testified that it is still maintaining its OSB which meets monthly with four (4) quarterly in-person meetings and seven (7) phone calls. At each meeting the OSB reviews the previous month's scorecard on the performance of each program in the portfolio, the year-to-date performance, and what is expected for the remainder of the year. During the quarterly in-person meetings, the OSB has a more in-depth meeting to review EM&V draft reports and other substantive issues. In rebuttal, Mr. Duff proposed to increase the discretionary spending cap to 20% to allow the OSB to more nimbly respond to changes that could occur over the EE Plan timeframe. We find this approach reasonable and so approve.

CAC raised the issue of its status on Petitioner's OSB. Despite CAC rarely missing a meeting and regularly contributing at Petitioner's OSB meetings and activities, Petitioner has not granted CAC voting status on its OSB. CAC is a voting member on the Demand Side Management OSBs of Indiana Michigan Power Company, Indianapolis Power & Light Company, Northern Indiana Public Service Company, and Southern Indiana Gas & Electric Company dba Vectren Energy Delivery ("Vectren"), i.e. CAC is a voting member on every investor owned electric utility's OSB in Indiana except for Petitioner's. Petitioner's current OSB has three (3) voting members: the Indiana Office of Utility Consumer Counselor, Kroger Company, and Duke. The OSB also has non-voting member/attendees: CAC, Nucor Steel, and the Indiana Chamber of Commerce. Out of the 22 meetings since January of 2018, the meeting minutes stipulated into the record show that voting member Petitioner and non-voting member CAC attended all 22 meetings, voting member OUCC attended 21 meetings, but the third voting member Kroger Company attended 0 meetings of the 22. We agree with CAC that the time for Petitioner to reconsider its decision has come. The continual denial of CAC's request to have a vote on its OSB does not foster collaboration. CAC has shown to be a valued and committed voting member on the other IOU OSBs, and we encourage Petitioner to make CAC a voting member on its OSB and put this issue to bed. Petitioner shall update the Commission on this issue in its next tracker filing.

E. Update to Rider No. 66. Ms. Lilly testified that upon Commission approval, Petitioner is proposing to update its Standard Contract Rider No. 66, First Revised Sheet No. 66, Pages 1 through 28 (Petitioner's Exhibit 6-A, Pages 1 through 28) subject to Petitioner's

filing of the updated Rider 66 Tariff sheet with the Commission's Energy Division and begin billing the rates on a bills rendered basis effective with the Commission's Order in this proceeding. Petitioner's proposed update to Rider No. 66 is approved.

F. Program Scorecard. In DSM-4, this Commission ordered Petitioner to provide additional information regarding its program scorecards so interested parties would have a better understanding of the savings being achieved in each program. Petitioner has been and continues to file its quarterly scorecards in the DSM-4 proceeding. We hereby order that Petitioner shall continue to file its quarterly score cards as directed in the requirements set forth in the DSM-4 Final Order, but under this current proceeding's cause number.

~~7~~6. **Confidential Information**. Petitioner filed a Motion for Protection of Confidential and Proprietary Information, which was supported by Affidavits, showing Exhibits and Workpapers filed in this proceeding were trade secret information within the scope of Ind. Code § 5-14-3-4(a)(4) and Ind. Code § 24-2-3-2. The Presiding Officers made rulings from the bench finding such information confidential on a preliminary basis after which such information was entered into evidence under seal. Accordingly, we find that all such information should continue to be held confidential pursuant to Ind. Code § 5-14-3-4(a)(4) and Ind. Code § 24-2-3-2.

IT IS THEREFORE ORDERED BY THE INDIANA UTILITY REGULATORY COMMISSION that:

1. Petitioner's 2020-2023 Plan, including program costs, lost revenues and a shared savings incentive is ~~approved~~ denied as set forth in this Order. Petitioner is hereby directed to refile an energy efficiency plan, consistent with our findings herein, within a reasonable time following the date of this Order. Until such time that a subsequent Order approves a new plan, Petitioner shall continue its interim authority, including said cost recovery, under the authority granted in Cause No. 43955 DSM 4 with the help and oversight of its OSB.

   ~~Given that the 2020 program year was offered under interim authority to continue under the authority granted in Cause No.43955 DSM 4, we find the effective date of this order is the date of the order and that the authority approved herein is not retroactive to January 1, 2020.~~

~~1.~~2. Petitioner's request for timely recovery of all costs, including program costs, lost revenues and financial incentives associated with Petitioner's portfolio of programs offered to customers during 2020-2023, through its Rider 66 is ~~approved~~ denied consistent with the terms of this Order.

~~2.~~3. Petitioner's request for continued authority to use deferred accounting on an ongoing basis until such costs are reflected in retail rates through its Rider EE is approved.

~~3.~~4. Petitioner's proposed update to Rider 66, including the billing factors contained in this Order, is approved, consistent with the Commission's determinations.

Commented [J3]: Should the Commission decide to approve the DSM plan despite CAC's objections, CAC requests in the alternative that the Commission limit the length of the DSM plan to 2021 or at most 2022, given the pending MPS and IRP process. As the Commission has repeatedly encouraged stakeholders to resolve DSM disputes outside of the litigated setting, approving a plan through the end of 2023 with these ongoing collaborative processes pending would short-circuit and undermine the opportunity for collaboration and the minimization of controversy.

~~4.~~5. Commencing with the first of the month following effective date of updated base rates, Petitioner is authorized to place into effect the depreciation rates approved in this Order.

~~5.~~6. Petitioner will continue to maintain its OSB as discussed herein and will update the Commission on making CAC a voting member of its OSB in its next tracker filing.

~~6.~~7. Petitioner will continue to file its EM&V reports as required in Cause Nos. 43955 DSM-2 and DSM-4, under this current Cause of action. Petitioner's EM&V will examine and propose strategies to overcome the Low-Income Weatherization barriers discussed within this Order.

~~7.~~8. The material submitted to the Commission under seal shall be and hereby is declared to contain trade secret information as defined in Ind. Code § 24-2-3-2 and therefore is exempted from the public access requirements contained in Ind. Code ch. 5-14-3 and Ind. Code § 8-1-2-29.

~~8.~~9. This Order shall be effective on and after the date of its approval.

HUSTON, FREEMAN, KREVDA, OBER, AND ZIEGNER CONCUR.

APPROVED:

I hereby certify that the above is true
and correct copy of the Order as approved.

_____
Mary M. Becerra
Secretary of the Commission