# INDIANAPOLIS POWER AND LIGHT COMPANY (D/B/A AES INDIANA) 

Cause No. 45911

## VERIFIED DIRECT TESTIMONY

OF

## BICKEY RIMAL

 ASSISTANT VICE PRESIDENT CONCENTRIC ENERGY ADVISORS, INC.
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# VERIFIED DIRECT TESTIMONY OF BICKEY RIMAL ON BEHALF OF AES INDIANA 

## I. INTRODUCTION AND QUALIFICATIONS

Q1. Please state your name and business address.
A1. My name is Bickey Rimal and my business address is 1300 19th Street, Suite 620, Washington, DC 20036.

Q2. By whom are you employed and in what capacity?
A2. I am employed by Concentric Energy Advisors, Inc. ("Concentric") as an Assistant Vice President.

Q3. Please describe your professional background and education.
A3. I have over 12 years of experience in the utility industry. I hold a Bachelor of Arts degree from Colgate University. I hold a Masters in International Public Affairs with a focus on Energy Policy from the University of Wisconsin in Madison. I have provided expert testimony on cost allocation issues on multiple occasions for various electric, gas, water, and wastewater utility clients. A summary of my education and experience is provided as AES Indiana Attachment BR-1.

Q4. Have you presented expert testimony in other proceedings?
A4. Yes. I have testified before the Indiana Utility Regulatory Commission ("IURC" or the "Commission"). In addition to the IURC, I have testified previously before the Arizona Corporation Commission, Connecticut Public Utilities Regulatory Authority, Maine Public

Utilities Commission, Massachusetts Department of Public Utilities, New York State Department of Public Service, and Nova Scotia Utility and Review Board.

## Q5. On whose behalf are you testifying?

A5. I am testifying on behalf of AES Indiana ("Company").

## Q6. What is your assignment in this proceeding?

A6. AES Indiana retained Concentric to conduct a fully-allocated cost-of-service study ("ACOSS") to determine the embedded costs of serving its various retail electric customers, and design rates that would be reasonable and appropriate for recovering the test year revenue requirements from the various customers. In this regard, I am sponsoring the class cost of service study and rate design filed in this proceeding. In addition, I am also sponsoring the results of a scenario ACOSS and rate design analysis that treat large low load factor customers as a separate rate classification.

## Q7. Please summarize the nature and purpose of your testimony?

A7. My testimony addresses the Company's cost of service and rate design studies. First, I discuss the purpose of an ACOSS and describe the Concentric Cost of Service Model ("Concentric Model") used in conducting AES Indiana's electric cost of service study. Second, I discuss various principles of cost allocation, factors that influence the cost allocation framework, and the underlying methodology and basis used in the Company's electric cost of service study.

Third, I describe the studies of relative costs and other analyses employed to assign the various categories of plant and operation and maintenance ("O\&M") expenses to the respective customer classes.

Fourth, I present the class-by-class rate of return results and corresponding revenue surpluses or deficiencies from AES Indiana's ACOSS. This presentation will include the resulting unit costs by class for customer, demand, and energy-related costs within the ACOSS.

Fifth, I describe the method used to apportion the Company's revenue deficiency to the various rate schedules. In particular, I describe the principles and methods used to mitigate the impacts on those classes that would otherwise receive large rate increases if the unmitigated results of the ACOSS were to be used to set the rates in this proceeding.

Sixth, I describe the process used to design the rates that are being proposed in this proceeding.

Finally, I discuss the bill impacts on customers resulting from the proposed rates.

## Q8. Are you sponsoring any attachments?

A8. Yes. I am sponsoring the following attachments:

Attachment No.
AES Indiana Attachment BR-1
AES Indiana Attachment BR-2
AES Indiana Attachment BR-3
AES Indiana Attachment BR-4
AES Indiana Attachment BR-5
AES Indiana Attachment BR-6
AES Indiana Attachment BR-7
AES Indiana Attachment BR-8

Name
Résumé
Description of the ACOSS Model
Summary of Class Cost Allocation and Unit Costs
Proposed Mitigated Revenue Requirement by Class
Industrial Rate Design
Class Revenue Summary
Test Year Revenue Proofs at Current and Proposed Rates
Summary of Proposed Rate Design

| AES Indiana Attachment BR-9 | Residential Bill Impacts |
| :--- | :--- |
| AES Indiana Attachment BR-10 | Industrial Low Load Factor Scenario Analysis |
| AES Indiana Attachment BR-11 | TDSIC Allocation Factors |


| Workpapers | Name |
| :--- | :--- |
| AES Indiana Workpaper BR-1.0C | CONFIDENTIAL Cost of Service Model [Excel <br> file] |
| AES Indiana Workpaper BR-1.1 | Functionalization, Classification, and Allocation <br> Factor Assignment |
| AES Indiana Workpaper BR-1.2 | Internal Allocation Factors |
| AES Indiana Workpaper BR-1.3 | Detail Results of ACOSS |
| AES Indiana Workpaper BR-2.0 | Class Allocation Factors - External [Excel file] |
| AES Indiana Workpaper BR-2.1 | Class Allocation Factors Summary |
| AES Indiana Workpaper BR-2.2 | Primary Secondary Study |
| AES Indiana Workpaper BR-2.3 | Minimum System Study |
| AES Indiana Workpaper BR-2.4 | Peak Demands |
| AES Indiana Workpaper BR-2.5 | Customer Account Analysis |
| AES Indiana Workpaper BR-2.6 | Uncollectibles Analysis |
| AES Indiana Workpaper BR-2.7 | Meters and Services |
| AES Indiana Workpaper BR-3.0C | CONFIDENTIAL Rate Design and Revenue Proof |
| AES Indiana Workpaper BR-4.0 | Calculations [Excel file] |
| Lighting Rate Design Calculations [Excel file] |  |
| AES Indiana Workpaper BR-5.0 | Residential Bill Impact Calculations [Excel file] |

The workpapers that end in zero (e.g., 1.0) are provided as excel files, while the workpapers with a non-zero suffix (e.g., 1.1) are provided as hardcopy excerpts from the excel files.

## Q10. Are you sponsoring any financial exhibits in this case?

A10. Yes. I sponsor AES Indiana Financial Exhibit AESI-OPER, Schedule REV10 - Electric Operating Revenue Adjustment at Proposed Rates.

Q11. Were the attachments, workpapers, and financial exhibits that you sponsor prepared or assembled by you or under your direction and supervision?

A11. Yes.

## II. ALLOCATED COST OF SERVICE STUDY

## A. Introduction to ACOSS

## Q12. Please describe the general approach used to develop the ACOSS?

A12. The purpose of the ACOSS in this proceeding is to allocate AES Indiana's overall revenue requirement to the various classes of service in a manner that reflects the relative costs of providing service to each class. This is accomplished through analyzing costs and assigning each customer or rate class its proportionate share of the utility's total revenues and costs within the test year. The results of these studies can be utilized to determine the relative cost of service for each customer class and help to determine the individual class revenue responsibility. The results also provide useful guidance in terms of designing rates for each class.

To allocate costs to the various classes, I reviewed AES Indiana's expense and plant accounts and worked with various AES Indiana personnel to develop studies of the relative costs of providing facilities and services for each rate class and analyzed the key factors that cause the costs to vary.

Q13. Please describe the Concentric Model that was used in conducting the ACOSS filed in this proceeding.

A13. AES Indiana has selected the Concentric Model for purposes of conducting the electric ACOSS in this general rate case. The same model was used in AES Indiana's most recent
rate cases in Cause Nos. 45029 and 44576. Concentric has developed a proprietary model for the purpose of conducting allocated cost of service and Concentric is using that model for purposes of conducting the electric ACOSS in this rate case. A brief description of the Concentric Model is provided with this testimony as AES Indiana Attachment BR-2.

## Q14. Is an electronic copy of the Concentric Model provided to the Commission?

A14. Yes. The Concentric Model in Excel format with formulas intact is included with the workpapers provided to the Commission as Confidential AES Indiana Workpaper BR 1.0C supporting my Direct Testimony. In addition, hardcopy details of the cost functionalization, classification, and allocation results produced by the model are provided in workpapers AES Indiana Workpaper BR-1.1, AES Indiana Workpaper BR-1.2 and AES Indiana Workpaper BR-1.3.

## B. Principles of ACOSS Preparation

## Q15. What is the guiding principle that should be followed when performing an ACOSS?

A15. The fundamental principle underlying an ACOSS is that cost allocation should follow cost causation. Cost causation addresses the question of which customer or group of customers causes the utility to incur particular types of costs. In order to answer this question, it is necessary to establish a relationship between the services used by a utility's customers and the particular costs incurred by the utility in serving those customers.

## Q16. What are the steps to performing an ACOSS?

A16. In order to establish the cost responsibility of each customer class, initially a three-step analysis of the utility's total operating costs must be undertaken. The three steps which are
the predicate for an ACOSS are: (1) cost functionalization; (2) cost classification; and (3) cost allocation.

## Q17. Please describe cost functionalization.

A17. The first step is cost functionalization, where the plant investment costs and operating expenses are categorized by the operational functions with which they are associated. AES Indiana's primary functional cost categories associated with electric service include Production, Transmission, Primary Distribution, Secondary Distribution, and Customer Accounts and Services. In addition, various categories of costs within the distribution function are assigned to separate sub-functions to the extent their costs vary in response to different customer class characteristics. Indirect costs that support these functions, such as General Plant, and Administrative and General Expenses, are allocated to functions using allocation factors related to plant and/or labor ratios.

## Q18. Please describe cost classification.

A18. The second step, cost classification, further separates the functionalized plant and expenses according to the primary driver of the costs. These factors are: (1) the number of customers; (2) the need to meet the peak demand requirements that customers place on the system; and (3) the amount of electricity consumed by customers. These classification categories have been identified for purposes of the ACOSS as 1) Customer Costs, 2) Demand Costs, and 3) Energy Costs, respectively.

Q19. How are these classification categories 1) Customer Costs; 2) Demand Costs and 3) Energy Costs related to the amount of costs incurred by the Company?

A19. Customer Costs are incurred to extend service to and attach a customer to the distribution system, meter any electric usage, and maintain the customer's account. Customer Costs are largely a function of the number of customers served and continue to be incurred whether the customer uses any electricity. They may include capital costs associated with minimum size distribution systems, services, meters, and customer billing and accounting expenses.

Demand Costs are capacity-related costs associated with plant that is designed, installed, and operated to meet maximum hourly or daily electric usage requirements, such as generating plants, transmission lines, transformers and substations, or more localized distribution facilities which are designed to satisfy individual customer maximum demands. Demand costs are fixed in nature, and do not vary with the number of customers or the amount of energy that customers receive.

Energy Costs are those costs which vary with the amount of kilowatt hours ("kWh") sold to customers. For example, included in the instant study are base fuel rates as well as some production operating costs that tend to vary with the amount of energy produced. However, except for fuel, the vast majority of AES Indiana's costs are fixed with respect to energy usage and very little of its remaining delivery service cost structure is energy related.

Q20. What is the process followed to appropriately classify costs as Customer, Demand, and Energy?

A20. Usually, a determination on the classification of costs can be made simply by knowing the type of activities or assets that reside within a particular FERC account. In these instances, the entire account can be classified into a single category. However, for some FERC
account functions it is beneficial to conduct classification studies to determine which portion of an account is associated with each classification category. Further discussion of the classification studies used in AES Indiana's ACOSS is provided in the section discussing studies of relative costs below.

## Q21. Please describe cost allocation.

A21. The third and final step, cost allocation, is the allocation of each functionalized and classified cost element to the individual customer or rate class that cause the cost to be incurred. Customers generally are divided into customer classes based on the type and character of services that they require. Costs typically are allocated to these customer classes based on factors related to the number of customers and the amount of capacity demanded by customers. For example, much of the plant and equipment cost depends upon the peak demand of the customers and these costs were allocated based on the peak demands of the rate class. Other portions of the cost depend upon the number of customers on the system and these costs were allocated on a customer, or weighted-customer basis. In addition, certain variable production costs as well as fuel and purchased power costs primarily depend upon the amount of energy consumed by customers. These costs were allocated based on the amount of energy consumed, adjusted for losses of energy that occur across the transmission and distribution system.

Q22. How do you then establish the fully-allocated costs related to various utility services?
A22. To establish these relationships, one must analyze a utility's electric system design, physical configuration and operations, its accounting records, and its system and customer load data. From the results of those analyses, methods of direct assignment and common
cost allocation methodologies can be chosen for each of the utility's plant and expense elements.

## Q23. Please explain the term "direct assignment."

A23. The term "direct assignment" means the assignment of costs to a specific customer or class of customers based on that customer's or class's exclusive identification with the particular plant or expense at issue. Usually, costs that are directly assigned relate to costs incurred exclusively to serve a specific customer or class of customer. Direct assignments best reflect the cost causative characteristics of serving individual customers or classes of customers. Therefore, in performing a cost of service study, one seeks to maximize the amount of plant and expense directly assigned to a particular customer or customer classes to avoid the need to rely upon other more generalized allocation methods. An alternative to direct assignment is an allocation methodology based on an analysis of factors that affect the relative costs of serving particular customer classes.

## Q24. What prompts the need to perform a study of the relative costs?

A24. When direct assignment is not readily apparent from the description of the costs recorded in the various utility plant and expense accounts, further analysis will need to be conducted to derive an appropriate basis for cost allocation. For example, in evaluating the costs charged to certain operating or administrative expense accounts, it is customary to assess the underlying activities, the related services provided, and for whose benefit the services were performed.

## Q25. Is it realistic to assume that a large portion of the plant and expenses of a utility can be directly assigned to a specific customer or certain customer classes?

A25. No. The nature of utility operations is characterized by the existence of facilities used jointly or commonly by multiple customers and classes. To the extent that a utility's plant and expenses cannot be directly assigned to customer classes, allocation methods based on cost causation must be derived to assign or allocate the remaining costs appropriately to the customer classes. The analyses discussed above facilitate the derivation of reasonable allocation factors for cost allocation purposes.

Q26. Please explain the considerations relied upon in determining the cost allocation methodologies that are used to perform an ACOSS.

A26. As stated above, to allocate costs within any cost of service study, the factors that cause the costs to be incurred must be identified and understood. The availability of data for use in developing alternative cost allocation factors is also a consideration. In evaluating any cost allocation methodology, appropriate consideration should be given to whether it provides a sound rationale or theoretical basis, whether the results reflect cost causation and are representative of the costs of serving different types of customers, as well as the stability of the results over time.

## III. AES INDIANA'S ACOSS

Q27. What attachments and workpapers show the allocation of costs to the various rate classes?

A27. The results of the ACOSS are summarized in AES Indiana Attachment BR-3. The assignment of functionalization, classification and allocation factors to each cost item is shown on AES Indiana Workpaper BR-1.1 and the internal allocators used to assign various overhead costs to rate classes are shown on AES Indiana Workpaper BR-1.2. Once
the costs are functionalized and classified, they are allocated to rate classes. The details of those allocations are shown on AES Indiana Workpaper BR-1.3 and the primary class-cost allocation factors are shown on AES Indiana Workpaper BR-2.1. In addition, various special studies of relative costs used in the classification and allocation of costs are presented further in my testimony.

## Q28. Are there new rate codes in the current ACOSS as compared to the one from the last case?

A28. Yes. AES Indiana is proposing to add a new rate for small metered devices owned by municipal customers. As discussed by Company witness Aliff, this new rate (Rate MD Metered Municipal Device (Small)) is intended to be used by municipal customers for metered traffic signals, public safety lighting, holiday lighting and public safety devices. These customers are currently taking service under rate code SS and are expected to migrate to Rate MD if approved. The ACOSS proposed in this instant case treats Rate MD as a separate rate classification and allocates cost to that class appropriately based on cost causation.

## 1. Sources of the Underlying Data

## Q29. What is the source of the cost data analyzed in AES Indiana's ACOSS?

A29. All cost of service data have been extracted from the Company's total cost of service (i.e., the base rate revenue requirement) contained in this general rate case filing for the historical test year ending December 31, 2022. Where more detailed information was required to perform various analyses related to certain plant and expense elements, the data were
derived from the historical books and records of the Company and information provided by relevant company personnel.

Q30. Did you make any adjustments to the total cost of service as provided by AES Indiana?

A30. Yes. I made an adjustment to eliminate negative rate base that occurs for the APL lighting rate codes. This is the result of negative net plant balances associated with FERC account 371 - Installations on Customer Premises. A negative rate base incorrectly suggests a negative cost to providing lamps and equipment to these customers. To remedy this, I set the rate base for FERC account 371. As a result of this remedy, I needed to redistribute the negative rate base value to the other distribution accounts to ensure the total rate base was correct. This is similar to how the Company treated the negative rate base associated with FERC account 371 in its two most recent rate cases ${ }^{1}$.

## 2. Functionalization and Classification of Costs

## Q31. How did you functionalize and classify AES Indiana's costs?

A31. The process starts with the assignment of the Company's FERC accounts to a specific function. In some instances, the costs in an account are first split into separate functions or classifications if the costs in the account are incurred to perform more than one function, or the costs in an account can be said to vary significantly with respect to more than one factor. For example, the accounts for distribution system poles, towers and fixtures, and conductors and conduits, have been separated into two functions: primary distribution and secondary distribution. In addition, these costs have been further separated into demand

[^0]and customer classifications. Similarly, a portion of the production O\&M expenses other than fuel have been classified as either fixed (demand-related) costs or variable (energyrelated) costs.

Plant and O\&M costs related to production, transmission and distribution generally can be assigned directly to specific functions, but various indirect costs related to overhead such as intangible plant and general plant, as well as administrative and general expenses are allocated to functions using "internal allocators" that are based on the relative amount of certain costs that have been directly assigned to each function. The specific functionalization allocators used to assign overhead costs have been selected to reflect the type of direct costs that each overhead account generally supports.

## Q32. Do you have a workpaper that provides details of the functionalization and classification process?

A32. Yes. The assignment of functionalization and classification factors are shown on AES Indiana Workpaper BR-1.1. Each cost item and the amount of dollars therein, is shown in the first column of costs shown on the workpaper. If an account is split into sub-functions, or into separate classifications, those splits are also shown in that first column. As mentioned previously, a few accounts, such as poles and conductors, have split classifications to reflect the fact that a portion of the costs are demand-related, and a portion of the costs are customer-related. Similarly, a portion of the O\&M expenses of the generating plants are classified as either fixed (demand-related) costs or variable (energyrelated) costs.

## Q33. Please explain the primary-secondary study.

A33. Since the costs associated with distribution facilities are not specifically identified in the financial accounting records as being Primary Distribution ( $480 \mathrm{~V}-34.5 \mathrm{kV}$ ) or Secondary Distribution (< 480 V), the distribution costs in Accounts 364-367 have been assigned to Primary or Secondary distribution functions based on cost-related ratios that were developed from analyses of the distribution plant records.

Distribution poles were functionalized between primary and secondary voltages based on the relative cost of replacing all primary poles versus secondary poles. Using AES Indiana's Geographic Information System ("GIS"), the number of poles carrying primary versus secondary voltage by height and class was obtained. For each category of pole, the pole count was multiplied by the replacement cost of that pole type to obtain the total replacement cost of that pole type. Using the total costs of all poles by voltage, the ratio of primary poles to secondary poles was calculated. The results of this analysis are provided on AES Indiana Workpaper BR-2.2 - Primary Secondary Study.

Distribution conductors were functionalized between primary and secondary voltages by utilizing length of conductors and replacement costs of conductors serving primary versus secondary distribution systems. Using AES Indiana's GIS, the length of conductors carrying primary versus secondary voltage was obtained. For each conductor type, the length of the conductor was multiplied by the replacement cost of that conductor to obtain the total cost of that conductor type. Using the total costs of all conductors by voltage, the ratio of primary conductors to secondary conductors was calculated. The results of this analysis are also provided on AES Indiana Workpaper BR-2.2 - Primary Secondary Study.

## Q34. Please explain the Minimum System Study.

A34. The costs associated with a distribution system are related to both the peak amount of load that the system is designed to deliver and the number of customers and premises that it is designed to serve. Consequently, it is appropriate to allocate a portion of the distribution system costs on a demand-related basis and a portion on a customer-related basis. In order to classify a certain portion of the distribution system costs as demand-related or customerrelated, a Minimum System Study was conducted which included an analysis for poles and an analysis for conductors. The minimum system analysis compares the cost of a hypothetical minimum system (i.e., a system sized to simply connect customers) to the total cost of the entire system. The minimum system cost represents the customer-related costs; whereas the total costs less the minimum system costs represent the demand-related costs (i.e., total cost is split between the customer component and the demand component). The Primary and Secondary Analysis for poles described above provided the total cost and total count of primary and secondary poles. This total count of primary poles was multiplied by the replacement cost of a minimum sized primary pole to calculate the minimum system replacement cost of primary poles. This was then compared to the total replacement cost of primary poles to determine the portion of primary poles that is customer related and demand related. A similar analysis was conducted for secondary poles. The results of this analysis are provided on AES Indiana Workpaper BR-2.3 Minimum System Study.

The Primary and Secondary Analysis for conductors described above provided the total cost and total circuit miles of primary and secondary conductors. A hypothetical minimum system replacement cost was calculated by taking the total circuit feet of conductor that related to the primary system and multiplying it by the replacement cost of a minimum
sized primary conductors. The minimum system replacement cost was then compared to the total system replacement costs to arrive at the customer related and demand related costs for primary conductors. A similar analysis was conducted for secondary conductors. The results of this analysis also are provided on AES Indiana Workpaper BR-2.3 Minimum System Study.

## Q35. Please explain the functionalization of production O\&M into fixed and variable components.

A35. As a general matter, with the exception of fuel costs, most production $O \& M$ expenses tend to fluctuate very little in response to changes in a generating plant's output. In reviewing production O\&M expenses with Company personnel, it was determined that certain production operating expenses related to materials such as limestone and chemicals are clearly variable; specifically, certain portions of Accounts 502, 505, 506, and 513. These expenses were calculated for the test year, and it was determined that about four percent of non-fuel production $\mathrm{O} \& \mathrm{M}$ expense was variable.

## Q36. How are the costs then assigned to functions?

A36. The next step in the process is to spread the costs listed in the first column of costs on AES Indiana Workpaper BR-1.1 to the various columns that designate the classifications and functions. In addition, several categories of revenue are designated on AES Indiana Workpaper BR-1.1 so that they ultimately will be credited to the cost of service of the various rate classes.

## Q37. How were direct costs functionalized?

A37. The direct costs of distribution plant and O\&M expenses are directly assigned to their proper function and classification. O\&M costs that are readily-identified with a specific function are assigned directly to the corresponding function. Distribution Supervision and Engineering expenses (Accounts 580 and 590) are allocated to functions using factors based on direct distribution operation labor and direct distribution maintenance labor. Miscellaneous Distribution Expense (Accounts 588) and Rents (Account 589) are allocated to distribution functions using factors based on total distribution plant.

## Q38. How did the ACOSS allocate distribution-related O\&M expenses?

A38. In general, these expenses were allocated based on the cost allocation methods used for the Company's corresponding plant accounts. This is based on the assumption that a utility's distribution-related O\&M expenses are generally thought to support the utility's corresponding plant in service accounts. Put differently, the existence of particular plant facilities necessitates the incurrence of operating cost (i.e., expenses by the utility to operate and maintain those facilities). Thus, the allocation basis for a particular expense account will be the same basis as that used to allocate the corresponding plant account.

## Q39. How are overhead costs functionalized?

A39. Indirect plant costs are allocated to functions based on ratios derived from direct plant costs. For example, Intangible Plant is allocated based on the relative amount of production, transmission and distribution plant directly assigned to each function. General Plant is assigned using the "Direct Labor" allocator.

Administrative and General Expenses were allocated to various functions using three different allocators. First, Salaries, Office Supplies, Administrative Expenses Transferred,

Injuries and Damages, Employee Pensions and Benefits, and Maintenance of General Plant were allocated using the direct labor allocation factor. Second, Property Insurance was allocated using the relative amount of rate base associated with each function. Third, Outside Services, Regulatory Commission Expense, General Advertising Expense, and Rents were allocated using a combination of the direct labor and the direct plant allocators.

## Q40. How were taxes other than income taxes assigned to functions?

A40. All taxes, except for income taxes, were functionalized in a manner that reflects the specific cost associated with the particular tax expense category. Generally, taxes can be functionalized using the tax assessment method established for each tax category, (e.g., payroll, property, or sales taxes). Depending on the method of assessment, other taxes were assigned or allocated to functions using either: (1) direct labor ratios; or (2) plant ratios.

## Q41. How were income taxes assigned to functions?

A41. Because income taxes are a function of the return on rate base, income taxes were allocated to functions based on the amount of rate base associated with each function.
C. Allocations to Rate Classes

Q42. What was the next step in the ACOSS?
A42. After functionalizing and classifying the costs as shown on AES Indiana Workpaper BR1.1, the functionalized and classified costs were allocated to the individual rate codes or classes on AES Indiana Workpaper BR-1.3 - Allocation to Rate Classes.
(1) Allocation of Demand-related Costs

## Q43. How were the demand-related costs allocated in the proposed ACOSS?

A43. I utilized a coincident peak demand method to allocate production and transmission costs, and a non-coincident peak demand method to allocate demand-related distribution system costs. "Coincident Peak" refers to the demand of a class at the time when the overall system demand is at its peak. "Non-coincident Peak" refers to the highest level of demand that an individual class experienced during the year or month. This non-coincident peak for a given class may coincide with the overall system peak but, generally it occurs at other times that are off-peak for the system as a whole. The factors used to allocate costs to rate classes are developed in AES Indiana Workpaper BR-2.0, and the resulting allocation factors are shown on AES Indiana Workpaper BR-2.1 - Class Allocation Factors Summary. Coincident and Non-Coincident peak demands for each of the classes are also shown on AES Indiana Workpaper BR-2.4.

Q44. What was the source of the data used to develop the demand-related allocation factors?

A44. This data were provided to Concentric by AES Indiana based on information collected and calculated as part of the Company's ongoing load research program. The peak demand allocators utilized in the ACOSS are shown on AES Indiana Workpaper BR-2.4. The determination of peak demand allocators is described in more detail by AES Indiana witness Fox.

Q45. Which coincident peak demand allocation method did you utilize to allocate production and transmission demand-related costs?

A45. I utilized the coincident peaks during each of the twelve months of the test period ("12CP") to allocate demand-related costs associated with the production and transmission functions. This is the method the Company used in its two most recent rate cases ${ }^{2}$. In addition, I applied the FERC's cost allocation tests to AES Indiana's load characteristics. As shown in the table below, AES Indiana met two of these three tests for the test year (both actual and normal), which indicates that the 12CP method continues to be appropriate.

|  | Peak - <br> Off-Peak <br> $\%$ <br> Difference | Low/Annual <br> Peak Ratio | Avg/Annual <br> Peak Ratio |
| :---: | :---: | :---: | :---: |
| Use 12 CP if: | $\leq 19.0 \%$ | $\geq 66.0 \%$ | $\geq 81.0 \%$ |
| Test Year - Normal | $15.5 \%$ | $59.3 \%$ | $82.5 \%$ |
| Test Year - Actual | $14.7 \%$ | $56.8 \%$ | $81.5 \%$ |

## Q46. Which peak demand method did you use to allocate the costs of demand-related distribution costs?

A46. I used the non-coincident peak demands of customer classes to allocate the costs of demand-related distribution costs. Although the production and transmission facilities are designed to meet the coincident peak demands of the entire system, as the system moves further from the generating plants and closer to the ultimate retail consumers, the primary factor affecting the planning and sizing of facilities is the level of peak demands in local areas. To the extent that customer classes have their individual peaks at different times, the Company must plan and install facilities to accommodate those individual peaks. In addition, to the extent that these facilities may be used jointly by different classes, the non-

[^1]coincident peak method ensures that all classes share in the costs of these facilities. As a result, non-coincident peak demands of each class were used in allocating demand-related costs associated with these distribution system facilities.

## (2) Allocation of Energy-related Costs

## Q47. How are the energy-related costs allocated in the ACOSS?

A47. Energy-related costs are allocated to the various rate classes based on the amount of energy used by each class during the test year, adjusted for abnormal weather effects, where appropriate, and energy losses that occur in serving customers at different voltage levels.

## Q48. Were the energy and demand cost allocation data adjusted for line losses in the electric system?

A48. Yes. Because some energy and power are lost in the process of transmitting and distributing electricity to customers, the amount of usage that is recorded at a meter is less than the amount of energy, power and capacity that is required at the production and transmission levels. The amount of system losses is greatest for customers that take service at the secondary voltage levels, and somewhat less for customers at primary, sub-transmission and transmission levels, respectively. To account for the different amount of losses experienced in serving customers at different voltage levels, the factors used to allocate demand-related costs to the various classes have been adjusted for the line losses that occur at each stage in the distribution system. The result is to appropriately allocate somewhat more of these costs to customers who take service at successively lower voltage levels.
(3) Allocation of Customer-related Costs

Q49. How have the customer-related costs been allocated in the ACOSS?

A49. Because a significant portion of the distribution system costs are incurred simply to attach a customer to the system and are the same regardless of the amount of energy that the customer might consume, significant portions of the distribution system costs and customer-related costs are allocated to classes using allocators that are related to the number of customers in the class. However, because there generally is a very wide difference between the customer classes in terms of the level of customer-related costs required per customer, many of the allocations of customer-related costs are weighted to reflect the relative differences in the average cost per customer of providing customerrelated facilities or services for particular rate codes or classes. Thus, customer-related costs such as meters, service lines, billing and customer service are allocated based on the cost-weighted number of customers in each class. The customer-related allocation factors and the relative-cost weights assigned to each class are shown in AES Indiana Workpaper BR-2.1 - Class Allocation Factors Summary. The general methods used to develop the customer-related allocation factors are discussed below.

## Q50. How were metering costs allocated to rate classes?

A50. Every customer, except lighting customers, requires a meter, but Commercial and Industrial meters generally cost considerably more and require more equipment compared to Residential meters. For this reason, meter weights were developed for each of the customer classes based on a list of the number and types of meters installed for each rate code and the associated embedded costs of each type of meter. In addition, an analysis was conducted to account for cabinets and transformers required by some meters by rate codes. The embedded meter cost along with cabinet and transformer requirement provided an estimate of the relative cost of providing metering service for each rate code. The relative-
weight factor was then multiplied times the number of customers in the class to develop the factors shown on AES Indiana Workpaper BR-2.1 - Class Allocation Factors Summary that were used to allocate metering costs to each class. Further backup for the meter allocations is provided as AES Indiana Workpaper BR-2.7 - Meters and Services Study.

## Q51. How were service lines allocated to each class?

A51. AES Indiana provided an estimate of the costs per service for residential and commercial customers for those served from overhead systems and those served from underground systems. This provided a relative weighting between residential and commercial customers which was multiplied by the number of customers in the class. The weighting factors and the allocation factors used for services are shown on AES Indiana Workpaper BR-2.1 Class Allocation Factors Summary and the additional backup is provided as AES Indiana Workpaper BR-2.7 - Meters and Services Study.

## Q52. How were customer service costs allocated?

A52. AES Indiana conducted an analysis of various Company departments and sub-functions dedicated to the customer service functions. In the course of the analysis, the costs of certain departments or sub-functions were allocated based on the estimates of department managers as to the proportion of the time and expenses incurred that are related to a particular customer class. For other departments or sub-functions, the costs were allocated on customer counts or allocated based on the results of combined departments. The relative weighting and allocation factors used are presented on AES Indiana Workpaper BR-2.1 Class Allocation Factors Summary with additional information provided as AES Indiana Workpaper BR-2.5 - Customer Account Analysis.

## Q53. Are there any other methods used to assign customer-related costs?

A53. Yes. The costs associated with meter reading and customer-related primary and secondary distribution costs were allocated on the basis of customer counts. Meter reading is an automated process for AES Indiana so there is no expectation that meter reading costs vary materially between rate classes. Uncollectible costs were allocated based on the amount of uncollectibles by rate class category. Details relating to uncollectibles are provided in AES Indiana Workpaper BR-2.6 - Uncollectibles Analysis.

## IV. RESULTS OF AES INDIANA'S ACOSS

Q54. Please describe the results of the ACOSS with respect to rate of return under the Company's rate classes.

A54. The summary of the results of the ACOSS and the relative rates of return produced by each class for the historical test year ending December 31, 2022, are presented in AES Indiana Attachment BR-3 and summarized in Table 1 below. This attachment is organized into two sections: the first half shows the costs and revenues of serving each of the four consolidated rate classes (Residential, Small Commercial and Industrial, Large Commercial and Industrial, and Lighting); and the second half shows the same information broken out into separate rate codes (RS, SS, SH, etc.). As shown on line 18 of this attachment (on pages 8 and 13) and table below, at present rates the ACOSS shows a wide variation in the rates of return by rate schedule.

| Rate Class | Rate Code | Return at <br> Current <br> Rates | Relative <br> Rate of <br> Return | Current <br> Subsidy |
| :--- | :---: | ---: | ---: | ---: |
| Residential | RS | $2.00 \%$ | 0.46 | $(\$ 49,116,033)$ |
| Secondary Small | SS | $9.42 \%$ | 2.17 | $\$ 21,424,126$ |
| Small Metered Service | MD | $28.71 \%$ | 6.62 | $\$ 158,926$ |
| Space Conditioning | SH | $3.91 \%$ | 0.90 | $(\$ 770,844)$ |
| Space Conditioning - Schools | SE | $12.35 \%$ | 2.85 | $\$ 299,993$ |
| Water Heating - Controlled | CB | $-9.72 \%$ | -2.24 | $(\$ 28,864)$ |
| Water Heating - Uncontrolled | UW | $0.55 \%$ | 0.13 | $(\$ 14,809)$ |
| Secondary Large | SL | $7.01 \%$ | 1.62 | $\$ 23,234,457$ |
| Primary Large | PL-HL | $6.29 \%$ | 1.45 | $\$ 11,851,772$ |
| Process Heating | PH | $5.08 \%$ | 1.17 | $\$ 55,344$ |
| Automatic Protective Lighting | APL | $-13.71 \%$ | -3.16 | $(\$ 2,794,728)$ |
| Municipal Lighting | MU1 | $-9.88 \%$ | -2.28 | $(\$ 4,299,340)$ |
| Total System |  | $4.34 \%$ | 1.00 | $\$ 0$ |

Q55. What is the amount of the rate increase or decrease that each customer class would need in order for each class to produce the system average required rate of return?

A55. Line 31 of AES Indiana Attachment BR-3 indicates the current subsidy received (negative) or provided (positive) by each class. The current subsidy is the amount of rate increase or decrease that would be required for each rate class if the goal were to have all classes produce equal rates of return at the current level of cost recovery. Line 44 shows the amount of increase that would be required for each class to pay its fully-allocated cost of service.
V. RATE DESIGN

1. Rate Design Objectives and Principles

Q56. Are there general rate design principles that are accepted by the utility industry?

A56. Yes. As a general matter, utility rate analysts have followed the general rate design criteria proposed by Professor James C. Bonbright in his seminal book "Principles of Public Utility Rates" first published in $1961 .{ }^{3}$ The following eight rate design criteria have remained viable for more than five decades now and are still relevant:

1. The related, "practical" attributes of simplicity, understandability, public acceptability, and feasibility of application.
2. Freedom from controversies as to proper interpretations.
3. Effectiveness in yielding total revenue requirements under the fair-return standard.
4. Revenue stability from year to year.
5. Stability of the rates themselves, with a minimum of unexpected changes seriously adverse to existing customers.
6. Fairness of the specific rates in the apportionment of total costs of service among the different consumers.
7. Avoidance of "undue discrimination" in rate relationships.
8. Efficiency of the rate classes and rate blocks in discouraging wasteful use of service while promoting all justified types and amount of use.

Q57. Are these general rate criteria for rate structures all consistent with one another?
A57. No, they are not required to be. For example, designing rates strictly based on cost of serving a particular class could conflict with the goal of achieving rate stability and gradualism. Hence, there will be conflict among these rate criteria, based on the specific facts and circumstances of any company.

Q58. Are some of these general rate design criteria more important than others?
A58. Yes. I agree with Professor Bonbright's assessment (page 292) that the rate criteria designated as items (3), (6), and (8) above are considered to be the primary ones. Item (3) relates to the recovery of the authorized revenue requirement under the "fair return"

[^2]standard; item (6) relates to the "fair cost apportionment objective" and item (8) relates to the efficiency objective. Even within these three criteria, the "fair return" standard is paramount because a rate structure that meets all the other rate design criteria but fails to recover the required return on and return of capital, will threaten the basic viability of the utility and its ability to provide service.

## Q59. What are the principles and objectives of AES Indiana for designing rates in this proceeding?

A59. AES Indiana had three primary policy objectives in the development of the rates proposed in this proceeding, which are in alignment with the Bonbright criteria mentioned above: (1) the charge for any service provided is just and reasonable; (2) the rates and charges should provide AES Indiana an opportunity to recover its revenue requirement; (3) the rates should provide incentives for efficient usage of the system by promoting justified usage while discouraging wastefulness. In addition, gradualism in rate changes on customers was another important objective of the Company. In light of gradualism and affordability considerations, the Company proposes to mitigate the impact of rate changes on any one rate schedule in this rate case. This results in proposed rates that are adjusted only part of the way in the direction of fully-allocated costs. To achieve that goal, I have capped the increases to any rate schedule and ensured that no customer class receives a revenue decrease. In addition, I did not increase the level of customer charges for the residential and small commercial rate classes to a level that fully recovers fixed costs at this time and retained the current inclining block structure of the customer charges, so as to mitigate the impacts on smaller customers in the residential and small commercial rate classes.

## VI. DESCRIPTION OF PROPOSED CLASS REVENUE REQUIREMENTS

Q60. What total electric revenue requirement is the Company proposing in this proceeding?

A60. The Company has a total revenue requirement of approximately $\$ 1,738$ million as shown on line 46 of AES Indiana Attachment BR-3. Because the Company collects miscellaneous other revenue including ancillary charges and off-system sales margin that are reflected as a credit against that total revenue requirement, the proposed rates are designed to collect Base Rate revenue of approximately $\$ 1,688$ million from the retail customers, as shown on line 49 of AES Indiana Attachment BR-3.

Q61. Have you examined the percentage rate increases that would be required for each rate schedule according to the Allocated Cost of Service Study?

A61. Yes. Column C of AES Indiana Attachment BR-4 presents normalized revenues that AES Indiana can expect to recover from each rate schedule at current rates, while column D of that attachment shows the allocated cost of service for each schedule. Column F shows the percentage increase/decrease in base rates that would be required if unmitigated ACOSSbased rates were to be applied. Although the overall rate increase that the Company is requesting is approximately nine percent, the unmitigated ACOSS indicates that the residential class would require a rate increase of around 18 percent and the controlled water heating rate schedule would require a rate increase of as much as 74 percent. Column $G$ shows the subsidy that each class and rate schedule is paying or receiving at current rates. Even though the goal is to move all rate classes to their cost of service, consistent with the policy of the state, the Company considered affordability for each of the customer classes
and determined that the percentage rate increases experienced by individual rate schedules should be mitigated to moderate the impacts on individual rate schedules.

## 1. Mitigation of Class Impacts

## Q62. How did you go about mitigating the class rate increases?

A62. The proposed revenue allocation to each rate class was derived based on discussion with the Company. The criteria used for proposed revenue allocation are: 1) the increase to any rate schedule was capped at 1.5 times the overall system increase; and 2) no rate schedule receives a rate reduction. ${ }^{4}$ I believe that this approach reduces the inter-class subsidies and moves classes closer to their cost of service, while ensuring that impacts on any one particular class is moderated.

Q63. Did you consider other alternate revenue allocation approaches?
A63. Yes. I also considered applying the subsidy reduction approach that the IURC has approved in prior rates cases for AES Indiana as well as other utility rate cases. This subsidy reduction approach first calculates the subsidy that each rate schedule is currently paying, which is equal to the difference between the revenue collected during the test year, and the amount of revenue that was required in order for each rate schedule to generate the system-wide average rate of return. This approach then determines a proportion of the subsidy at current rates to be eliminated. However, given the wide disparity in the rate of

[^3]return at current rates by rate schedule, it was not possible to get reasonable revenue allocation results by simply eliminating a fixed proportion of the current subsidy.

Q64. Please describe the results of your mitigation approach.
A64. Column $Q$ of AES Indiana Attachment BR-4 shows the final mitigated revenue requirement by rate class and rate schedule. Column P shows the final rate increase for each rate class and rate schedule. Column $S$ shows the percentage of current subsidy removed as a result of the proposed mitigation approach. Finally, Column T shows the ratio of final mitigated revenue requirement to revenue requirement resulting from the ACOSS. This ratio ranges from 0.65 to 1.25 based on the proposed mitigated revenue requirement. Page 2 of AES Indiana Attachment BR-6 supports AES Financial Exhibit AES-OPER, Schedule REV10.

Q65. What rate of return would be generated by each rate schedule at the proposed mitigated revenue requirements?

A65. The pro forma rates of return that would be generated by each rate schedule at the proposed mitigated revenue requirements are shown on line 64 of AES Indiana Attachment BR-3.
D. Rate Design

Q66. Were there certain general principles that you followed in designing rates for individual rate schedules?

A66. One principle that I applied was to move towards alignment of the rate structures with cost structures. I relied on the results of the ACOSS to inform changes to the magnitude of individual rate components for each rate schedule. To increase the alignment of rate
structures and cost structures, I generally increased the customer charges and/or the demand charges to a level that recovers a higher proportion of the fixed costs of service. As a result, I have attempted to reduce the proportion of the fixed costs recovered through variable energy charges.

I started with the amount of the revenue requirement for each rate schedule and subtracted out the base fuel costs to derive the amount of the margin that would need to be collected. If a particular rate had a customer charge and demand charge, I changed the customer charge to be closer to the level of customer-related costs calculated by the ACOSS, which is presented on AES Indiana Attachment BR-3. For rate schedules that have demand charges, I designed the rates to recover most of the remaining fixed costs in a demand charge. Energy charges for these rate schedules (i.e., rate classes with demand charges) are designed to recover the fuel and variable energy costs, plus a margin of approximately one mill per kWh . For rate schedules that do not have demand charges, I set the energy charge at a level that would recover the remaining portion of the revenue requirement, generally through a declining block energy charge.

## Q67. Did you have additional considerations for residential rate design?

A67. Yes. I designed residential rates such that customers who consume more energy receive larger increases in dollar terms in their monthly bill as compared to the smaller customers. This resulted in larger residential customers experiencing a larger dollar increase, but a lower percentage increase, in their monthly bills than smaller customers. I also ensured that the smallest customers (customers using less than 325 kWh per month) receive increases of less than $\$ 7.20$ per month.

Q68. How were the proposed rates for each rate schedule calculated?
A68. Detailed calculations for each rate component of each rate schedule and a proof of proposed revenues by rate schedule is shown on AES Indiana Attachment BR-7 and in AES Indiana Workpaper BR-3.0C. As the attachment shows, the proposed total revenue requirement for each rate schedule will be achieved by implementing the proposed rates.

Q69. What levels of monthly customer charges are you proposing for the residential and small commercial rate schedules?

A69. The proposed rates would increase the Residential monthly customer charge, which is a discrete charge within the total residential rate structure, for the small customers (< 325 $\mathrm{kWh} /$ month) from its current level of $\$ 12.31$ to the proposed level of $\$ 16.50$, and the customer charge for the larger customers (> $325 \mathrm{kWh} /$ month) would be increased from $\$ 16.75$ to $\$ 25.00$. It is important to clarify that this proposed change in this isolated component (i.e., customer charge) does not reflect the Company's proposed change in the overall residential rate. I discuss the residential rate impact from proposed rates later in my testimony. Similarly, the Small Secondary service monthly customer charges would be increased from its current level of $\$ 39.40$ to the proposed level of $\$ 40.00$ for the smallest customers on that rate schedule, and the largest customers would receive an increase from the current level of $\$ 54.18$ to the proposed level of $\$ 55.00$. All of these changes are being made in order to more closely reflect the costs of serving each customer, as indicated by the ACOSS. For example, the unit costs resulting from the ACOSS are shown near the bottom of AES Indiana Attachment BR-3. To reflect the actual fixed costs to serve customers, for the Residential class the cost-based customer charge would be approximately $\$ 103$ and for the Small Secondary rate schedule the cost-based customer
charge would be approximately $\$ 192$. Thus, although the increases in customer charges for these rate schedules move in the direction of recovering more of the actual fixed costs in the customer charge, a substantial portion of fixed costs will still be recovered in the variable energy charge component of the rates for these customers. For the Residential class, the proposed $\$ 25$ customer charge only recovers about $24 \%$ of the fixed costs and for the Small Secondary rate schedule, the proposed $\$ 40$ customer charge only recovers about $21 \%$ of the fixed costs. The increase in customer charges as proposed is consistent with the Commission's recognition that "[c]ost recovery design alignment with cost causation principles sends efficient price signals to customers, allowing customers to make informed decisions regarding their consumption of the service being provided."5

Q70. How are you proposing to recover the remaining fixed costs in the variable energy charge component of the residential and small commercial rate schedules?

A70. The existing declining-block rate structure for these two rate schedules is retained in the proposed rates. For the residential (RS) class the rates per kWh are higher for the first 500 kWh and lower for amounts over 500 kWh . Residential water heating (RC) and space heating (RH) customers also are eligible for a lower third block for consumption over 1,000 kWh in a month. For the small commercial (SS) customers, the first $5,000 \mathrm{kWh}$ consumed each month will be charged at a higher rate, and a lower rate will be charged for amounts over $5,000 \mathrm{kWh}$.

Since the residential and small commercial customers do not have a demand charge, a declining block rate structure is an alternative way to recover the fixed costs that are not

[^4]recovered in the customer charge. AES Indiana's declining block rate structure for these rate schedules helps ensure that an appropriate level of fixed costs is recovered from each customer while also reducing the amount of fixed costs loaded into the marginal energy charges. This blocking structure provides better price signals for efficient consumption and also reduces the variability of the Company's earnings that may result from year-toyear fluctuations in consumption, in spite of the fixed nature of the costs incurred.

## Q71. How did you design the rates for large industrial customers?

A71. Similar to AES Indiana's last rate filing, costs were allocated to the PL and HL classes as a single group in the cost allocation process. The calculation of the cost of service for each of the rate codes in this group are shown on AES Indiana Attachment BR-5 and the "Industrial Cost Allocation" tab of AES Indiana Workpaper BR-3.0C.

First, the allocated Production and Transmission costs were assigned to each rate code based on the loss-adjusted demand billing determinants. This resulted in each rate code having a Production and Transmission Demand Charge component that was distinguished by the level of line losses incurred in providing service at different voltage levels.

Second, the allocated Distribution demand-related costs were assigned only to the PL and HL1 customers. None of these costs were assigned to the HL2 or HL3 customers, who take service at sub-transmission and transmission voltages and therefore do not use the distribution system.

Third, the allocated Distribution customer-related costs were assigned to the PL and HL1 rate codes based on the number of customers so that the same customer-related Distribution costs would be reflected in the rates for each of these rate codes.

Fourth, the allocated Meter costs were assigned to each rate code based on the weighted average cost of meters for customers on each rate code because meters for sub-transmission and transmission voltage customers tend to cost considerably more than meters for primary voltage customers.

Fifth, allocated fuel and energy costs were assigned to each rate code based on the lossadjusted energy usage of each class. This ensured that the fuel and energy costs per kWh appropriately reflected the differences in line losses attributable to each rate code.

Finally, credits for Other Revenues, and adjustments for rate mitigation were assigned to each rate code based on rate code specific ratios.

Once the total revenue requirement for each of these large industrial rate codes was determined, the final rates were calculated on the corresponding tab of AES Indiana Workpaper BR-3.0C. These final rate design calculations are also shown in AES Indiana Attachment BR-7.

## Q72. What other changes have you made to the rate design?

A72. As discussed earlier and by Company witness Aliff, AES Indiana is proposing to create a new rate for small metered devices owned by municipal customers (Rate MD), and I have designed rates to recover the mitigated revenue requirement assigned to this new rate. The charges for Rate MD consist of a fixed monthly customer charge and single, volumetric charge. The proposed rates are closely aligned with the results of the ACOSS.

## Q73. Is AES Indiana proposing to change the lighting provisions in its tariff?

A73. Yes. AES Indiana currently has separate lighting rates for lights installed prior to March 31, 2016, which are designated as "VINTAGE" in the tariff, and separate rates for lights
installed after March 31, 2016, which are designated as "NEW" in the tariff. AES Indiana designed rates for the Automatic Protective Lights (APL) and Municipal Lights (MU) by applying an across the board increase to each light to recover the revenue allocated to each rate code. AES Indiana is also proposing new tariff rates for lights, where customers have made or will make a Contribution in Aid of Construction ("CIAC"). As discussed by Company witness Aliff, AES Indiana is proposing to have new tariff rates for lights with CIAC payments to avoid having to renew or create contracts for these situations in the future.

## Q74. Did you perform any rate design scenario analysis?

A74. Yes. As a part of the Settlement Agreement approved by the Commission in AES Indiana's last rate case in Cause No. 45029, AES Indiana "agreed to prepare an analysis that separately allocates costs to low load factor customers and a proposed rate structure to recover those allocated costs". In compliance with this provision, I conducted a scenario ACOSS and rate design analysis that reflects large low load factor customers as a separate rate classification. The results of this scenario analysis and a summary of the illustrative rate design are filed as AES Indiana Attachment BR-10.

Q75. Is AES proposing to update the Transmission, Distribution, and Storage System Improvement Charge ("TDSIC") revenue allocation factors?

A75. Yes. Using the results of the ACOSS, I have developed the updated TDSIC revenue allocation factors by rate code based on firm load. AES Indiana Attachment BR-11 shows the TDSIC revenue allocation factors by rate class and code.

Q76. Is AES proposing to make changes to any of the rate components in Rate CGS?

A76. Yes. Rate CGS allows a customer to receive a cost-justified reduction in their demand charge by taking back-up or maintenance power as curtailable power, subject to certain conditions specified in the Rate CGS tariff. The daily generation component as well as the transmission and distribution component of the demand charge of Rate CGS are being updated to reflect the results of the ACOSS.

## VII. REVENUE PROOF AND TYPICAL BILLS

## Q77. Do you have an attachment that shows the rate components and revenue that will be collected from each rate schedule at the proposed rates?

A77. Yes. AES Indiana Attachment BR-7 demonstrates that the targeted total revenue for each rate schedule will be achieved using the proposed rates and normalized test period billing determinants. Note that detailed calculations for customers taking service at transmission voltage levels are considered confidential and are omitted from AES Indiana Attachment BR-7; instead, those calculations can be found in AES Indiana Workpaper BR-3.0C. AES Indiana Attachment BR-8 summarizes the new rates that are being proposed in this proceeding.

Q78. Do you have an attachment that shows how the proposed rates will affect various residential customers?

A78. Yes. The bill impacts for residential customers are shown on AES Indiana Attachment BR-9. It can be seen in Col. E of that attachment that the smallest residential customers (customers consuming about 325 kWh per month) will experience an increase in their monthly bill of less than $\$ 7.20$ per month and a majority of customers will experience a rate increase of less than $\$ 19.00$ per month. A residential customer who uses $1,000 \mathrm{kWh}$
per month will experience an increase of $\$ 17.49$ per month, which is an increase of approximately $13.2 \%$. My attachment details how these rate impacts were calculated.

## VIII. SUMMARY AND CONCLUSIONS

## Q79. Please provide a summary of your testimony.

A79. Using the Concentric Cost of Service Model, I have allocated AES Indiana's overall revenue requirements to the various classes of service in a manner that reflects the relative costs of providing service to each class. This is accomplished through analyzing costs and assigning each customer or rate class its proportionate share of the utility's total revenues and costs within the test year. The ACOSS followed the industry standard three step approach of functionalization, classification, and allocation to establish cost responsibility of each rate class. The results of the ACOSS indicate that at present rates, there is a wide variation in the rates of return by rate schedule. Even though the goal is to move each rate code to its cost of providing service, the proposed revenue allocation moves classes closer to their cost of service due to gradualism and affordability considerations. Using the results of the ACOSS as a guide and in collaboration with the Company, I allocated the revenue requirement to classes such that the current subsidy associated with each class was reduced. I then designed rates to increase the alignment of rate structures and cost structures by reducing the proportion of the fixed costs recovered through variable energy charges. Even though my proposed increases to customer charges for residential and small commercial customers move in the direction of recovering more of the fixed costs in the customer charge, a substantial portion of fixed costs will still be recovered in the variable energy charge component of the rates for these customers. My proposed rates and rate structures
for large industrial customers are very closely aligned with the unit costs resulting from the ACOSS. As a result, I believe that my proposed rate structure and rates are just, reasonable, and not unreasonably preferential or discriminatory. Further, the proposed rate structure and rates are expected to provide AES Indiana with a reasonable opportunity to earn the required return on its invested capital and recover its necessary and reasonable operating expenses.

Q80. Does this conclude your prepared Direct Testimony?
A80. Yes, it does.

## VERIFICATION

I, Bickey Rimal, Assistant Vice President for Concentric Energy Advisors, Inc., affirm under penalties for perjury that the foregoing representations are true to the best of my knowledge, information, and belief.


Bickey Rimal
Dated: June 28, 2023

## BICKEY RIMAL

## Assistant Vice President

Bickey Rimal has over 13 years of progressive experience in the energy and environmental sector. Mr. Rimal has contributed to projects involving revenue requirement, cost of service, rate design, expert testimony preparation, energy market assessments, and utility performance benchmarking. His work often involves financial modeling, statistical analysis, and regulatory research. Mr. Rimal has provided expert testimony on cost allocation issues on multiple occasions. Mr. Rimal has extensively used Concentric's Excel-based macro-driven Allocated Class Cost-of-Service ("ACCOS") model for various electric, gas, and water utility clients. He has modified and updated the model as needed to suit the specific needs of the clients. Mr. Rimal has a Masters in International Public Affairs with a focus on Energy Policy from the University of Wisconsin in Madison. Prior to enrolling in the graduate program, Mr. Rimal worked at ICF International, a global energy and environmental consulting firm, for three years. At ICF, Mr. Rimal was extensively involved in projects dealing with policy design and implementation, economic impact analysis, regulatory evaluation, and environmental risk assessment.

## REPRESENTATIVE PROJECT EXPERIENCE

## Regulatory Proceedings and Litigation Support

Mr. Rimal has been involved in projects dealing with all aspects of regulatory ratemaking process. Mr. Rimal has extensively used Concentric's excel-based macro driven Allocated Class Cost-of-Service ("ACCOS") model for various utility clients and provided testimony supporting ACCOS studies. He has modified and updated the model as needed to suit the specific needs of the clients.

Representative engagements have included:

- Conducted ACCOS studies and designed rates for a north-eastern gas distribution company and filed testimony supporting those studies.
- Conducted ACCOS studies and designed rates for multiple water districts for a south-western water utility and filed testimony supporting those studies.
- Conducted various cost allocation studies, functional studies, and minimum system studies and filed testimony supporting those studies for a vertically integrated Midwest electric utility.
- Supported the development of an allocated class cost of service study and rate design for another vertically integrated Midwest electric utility. Mr. Rimal was directly involved in conducting special cost allocations and functional studies; developing cost of service studies; designing the rates and calculating the associated bill impacts.
- Supported the development of an allocated class cost of service study and rate design for a distribution only electric utility in Pennsylvania. Mr. Rimal modified Concentric's ACCOS model to incorporate three distinct test years simultaneously and automated the results creation process.
- Responsible for the development of various cost allocation studies for two electric utilities in New York as part of the cost of service study.
- Supported the developed revenue requirement model to comply with a new performance based formula ratemaking process for a Midwest electric utility.
- Supported cash working capital studies on multiple cases by conducting billing lag analysis involving extremely large data sets utilizing SPSS and R software.
- Created model in R to statistically compare hourly load data between two distinct types of meters to assist a utility in its load research program.
- Created an excel based benchmarking model that have been used on multiple occasions to assess performance of several utilities against various peer groups.
- Supported the development of a rate model to calculate the annual cost of service rates as well as a levelized rate for conversion of an oil pipeline into a natural gas pipeline.


## Market Assessment and Asset Optimization Review

- Involved on projects, with two different gas utilities in the Northwest, that forecasted the evolution of demand for compressed natural gas and liquefied natural gas in the transportation sector in their respective territories. Mr. Rimal developed models to analyze the market penetration of different transportation fuels under various fuel price spread scenarios and other market dynamics.
- Estimated the impact on electricity prices due to pre-mature closure of certain nuclear facilities using regression analysis. Validated the price impacts by analyzing the generation supply curve for the location in question.
- Annual assessment of asset manager's performance on multiple occasions by conducting asset optimization analysis of client's natural gas portfolio consisting of both transportation and storage assets.

Valuation

- Created a Discounted Cash Flow ("DCF") model to value a generic regulated natural gas local distribution company ("LDC"). The model was customized to create valuation for any LDC covered by SNL Financial by automating the data retrieval process from SNL based on user input. The model had an added functionality of triggering a revenue enhancement when the earned ROE was outside certain pre-established thresholds.
- Created Discounted Cash Flow ("DCF") models to assess the profitability of various generic units operating in the New York Control Area for NYISO.
Capacity Price Forecasting
- Updated and modified Concentric's Capacity model used to forecast capacity prices for various regions within NYISO based on existing and planned generation, planned retirements, transmission constraints, market mitigation rules, gross and net CONE estimates, and other relevant demand curve parameters.


## Relevant ICF Experience

- While at ICF, Mr. Rimal was part of a team that assisted the EPA's Clean Air Market Division (CAMD) in analyzing the effect of environmental policies on power generation sector. As a part of this effort, he was significantly involved in executing as well as maintaining and updating the Technology Retrofit and Updating Model (TRUM). The TRUM model simulates the action of the electric utilities industry under a multi-pollutant emissions trading program.
- Assisted in the creation of an excel model that assessed the impacts of GHG mitigation policies on the competitiveness of the US manufacturing industries.
- Provided support to the Hours of Service regulation by analyzing different crash related data to identify main causes of fatigue among drivers by utilizing logistic regression models.


## PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (2011 - Present)
Assistant Vice President
Senior Project Manager
Project Manager
Senior Consultant
Consultant
Assistant Consultant
Associate
ICF International (2006-2009)
Associate
Analyst
Research Assistant

## EDUCATION

University of Wisconsin - Madison
M.A., International Public Affairs, 2011

## Colgate University

B.A., Chemistry, Colgate University, 2006

## ARTICLES AND PUBLICATIONS

Nemet Gregory F., Braden Peter, Cubero Ed, Rimal Bickey. Four decades of multiyear targets in energy policy: aspirations or credible commitments? WIREs Energy Environ. 2014, 3: 522-533.

## AVAILABLE UPON REQUEST

Extensive client and project references, and specific references.

| SPONSOR | DATE | CASE/APPLICANT | DOCKET | SUBJECT |
| :---: | :---: | :---: | :---: | :---: |
| Arizona Corporation Commission |  |  |  |  |
| Epcor Water Arizona Inc. | 2020 | Epcor Water Arizona Inc. | Docket No. <br> WS-01303A- <br> 20-0177 | Embedded Cost of Service and Rate Design; Weather Normalization Adjustment |
| Epcor Water Arizona Inc. | 2022 | Epcor Water Arizona Inc. | Docket No. <br> WS-01303A- <br> 22-0236, et al. | Embedded Cost of Service and Rate Design |
| Connecticut Public Utilities Regulatory Authority |  |  |  |  |
| The Connecticut Water Company | 2021 | The Connecticut Water Company | Docket No. 20- $12-30$ | Allocated Cost of Service, Rate Design and Rate Consolidation |
| The United Illuminating Company | 2022 | The United Illuminating Company | Docket No. 22- 08-08 | Allocated Cost of Service and Rate Design |
| Indiana Utility Regulatory Commission |  |  |  |  |
| Northern Indiana Public Service Co. | 2015 | Northern Indiana Public Service Co. | Cause No. 44688 | Cost Allocation |
| Northern Indiana Public Service Co. | 2018 | Northern Indiana Public Service Co. | $\begin{aligned} & \text { Cause No. } \\ & 45159 \end{aligned}$ | Cost Allocation |
| Indianapolis Power \& Light Co. | 2019 | Indianapolis Power \& Light Co. | $\begin{aligned} & \text { Cause No. } \\ & 45211 \end{aligned}$ | Cost Allocation as it relates to a Special Contract |
| Maine Public Utilities Commission |  |  |  |  |
| Central Maine Power Company | 2022 | Central Main Power Company | $\begin{aligned} & \text { Docket No. } \\ & \text { 2022-00152 } \end{aligned}$ | Embedded Cost of Service Study |
| Massachusetts Department of Public Utilities |  |  |  |  |
| Boston Gas Company d/b/a National Grid | 2020 | Boston Gas Company d/b/a National Grid | DPU 20-120 | Embedded Cost of Service and Rate Design |
| New York State Department of Public Service |  |  |  |  |
| New York State Electric \& Gas Corporation, and Rochester Gas and Electric Corporation | 2022 |  <br> Gas Corporation, and <br> Rochester Gas and <br> Electric Corporation | $\begin{aligned} & \text { Case 22-E- } \\ & 0317 \end{aligned}$ | Embedded Cost of Service and Rate Design |

## Attributes of the Concentric Cost of Service Model

The Concentric Energy Advisors ("Concentric") allocated cost of service model (the "Model") contains many features that promote ease of use, efficiency and adaptability. These include:

- Information linked, not transferred - Rather than transferring or copying tables of data between worksheets, the Concentric model uses the linking capabilities of the software to directly reference information in one area that is used later in the cost of service process.
- Color Coding - Cells are shaded specific colors to indicate factor related inputs, data related inputs, data transferred from another worksheet, data checking and formulas that shouldn't normally be modified.
- Expandable customer class specification - The model is configured to allow up to 19 rate classes. Additional customer classes can be created with minor modifications to the model.
- Centralized inputs - Instead of having external input data located throughout the model, inputs have been centralized to three worksheets. This has been done to simplify data entry and to help prevent the user from forgetting to update information in a particular file or worksheet.
- Automated functionalization, classification, and allocation - The model automatically changes the allocation percentages whenever the user changes a functionalization, classification, or allocation factor of an account. There is no need to recode the allocation percentages or change cell formulas.
- Cost tracking - Costs can be tracked on a functional basis allowing for the calculation of functional revenue requirements and functional unit rates. Additional functional categories can be created with minor modifications to the model.
- User-friendly buttons for running macros - Instead of having to remember commands to run the macros to calculate the model and print various pages, the macros run off of clicking buttons in CONTROLS.


## Concentric COS: Overview of Important Concepts

## A. Worksheet overvien

The Model contains 14 worksheets as follows:

1. CONTROLS - Contains buttons to run the macros to calculate the model and print various worksheets.
2. INPUTS - Provides for the user to specify customer classes, functional factors and classification factors.
3. CLASSIFIERS - Contains areas for data input of external classifiers based on user specified classifications on the INPUTS worksheet.
4. EXTERNAL - Contains areas for data input of user specified external allocators.
5. INTERNAL - Provides for the specification of internal allocation factors.
6. ACCOUNTS - Contains sections for the user to specify plant and expense information by account for the test year. The user can assign functions, classification, $n$ and allocation factors to the various cost elements in this sheet.
7. CLASS - Takes line item cost data and factor information from ACCOUNTS and spreads them out over classification factors.
8. FUNCALLOC - Takes cost data from CLASS and spreads it out to functional/allocation factor categories.
9. CLASS ALLOC - Takes the functional/allocated plant and expense totals and spreads them to customer classes.
10. ACCT DETAIL - Shows, by account, the allocation factor used and the resulting allocation of costs by rate class and cost classification.
11. ACCTFAC - Calculates the factors needed for ACCT DETAIL.
12. REV REQ - The REV REQ sheet calculates the income tax as needed for the SUMMARY. Taking specific lines of data from CLASSALLOC and INPUTS, it calculates income taxes based on the fully functionalized, classified, and allocated costs.
13. SUMMARY - Summarizes results of functionalization, classification and allocation of data into total cost of service, functional rate base, functional revenue requirements and unit costs at equalized rates of return.
14. ErrorCheck - Produce a report of error conditions by row from four worksheets.

## AES Indiana Witness BR Attachment 1 AES Indiana 2023 Basic Rates Case

## B. Explanation of functional/ allocation factors

One of the ways the revised model has achieved efficiencies while tracking functionalization is through the use of combined functional/allocation factors for grouping costs before spreading to customer classes.

In ACCOUNTS all cost items that are not assigned an internal factor are assigned a functional factor, classification factor, and allocation factor by which the cost will be distributed to the customer classes. Each cost item is carried into CLASS, which separates each cost into the assigned classification categories (e.g., $100 \%$ to DEM) and a macro creates the functional/allocation factor combinations for each cost item. These combinations are the name of the functional factor, an underscore, and the name of the allocation factor (e.g., F_PRODU_CP) assigned to that cost item. At the top of FUNCALLOC there are column headings which contain all of the possible functional/allocation factor combinations. Each cost item is then carried into FUNCALLOC and the portion of the costs associated with each functional/allocation factor is entered into the correct column. The rate base and expense totals in each functional/allocation factor column are pulled into CLASSALLOC, where the grouped costs are split into customer classes based on the allocation factor portion of the combined functional/allocator. The functionalization factor portion of the combined functional/allocation factors allows for subtotaling rate base and expenses by function that will be used throughout the rest of the model. Therefore, tracking grouped costs using the functional/allocators allows for calculating functionalized revenue requirements and unit costs.

All external and internal allocation factors must be assigned a name. In addition, each external allocation factor must be assigned a classification. Use of an unnamed allocation factor will cause an error condition which will be flagged in the orange "Check" column and reported on the ErrorCheck worksheet when the user runs the error check macro. Using an allocation factor in a different classification column on ACCOUNTS than that specified for the allocator on EXTERNAL may cause an error condition. To avoid any potential problems do not use allocator for more than one classification. Instead, create a second allocator with a different name. There are no problems that occur if an allocator on EXTERNAL or INTERNAL is not used. However, creating unnecessary allocation factors expands the size of the model.

## Class Cost of Service Study

## Summary of Results

| Line No. | Description |  | System Total |  | Residential |  | Small C\&I |  | Large C\&I |  | Lighting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) | (B) |  | (C) |  | (D) |  | (E) |  | (F) |  |
|  | Rate Base |  |  |  |  |  |  |  |  |  |  |
| 1 | Plant in Service | \$ | 6,441,607,550 | \$ | 3,165,451,758 | \$ | 939,223,678 | \$ | 2,186,089,396 | \$ | 150,842,718 |
| 2 | Accumulated Reserve |  | (3,407,234,585) |  | (1,655,825,854) |  | $(505,776,100)$ |  | (1,122,803,444) |  | $(122,829,187)$ |
| 3 | Other Rate Base Items |  | 447,532,786 |  | 216,721,612 |  | 65,052,018 |  | 156,158,853 |  | 9,600,304 |
| 4 | Total Rate Base | \$ | 3,481,905,751 | \$ | 1,726,347,516 | \$ | 498,499,595 | \$ | 1,219,444,805 | \$ | 37,613,835 |
|  | Revenues at Current Rates |  |  |  |  |  |  |  |  |  |  |
| 5 | Retail Sales | \$ | 1,549,470,354 | \$ | 669,367,989 | \$ | 239,873,810 | \$ | 622,556,777 | \$ | 17,671,779 |
| 6 | Other Revenue |  | 25,440,327 |  | 16,281,991 |  | 2,714,724 |  | 6,174,433 |  | 269,179 |
| 7 | Sales for Resale |  | 28,612,056 |  | 12,590,714 |  | 4,116,118 |  | 11,837,492 |  | 67,732 |
| 8 | Total Revenues | \$ | 1,603,522,737 | \$ | 698,240,694 | \$ | 246,704,651 | \$ | 640,568,702 | \$ | 18,008,690 |
|  | Expenses at Current Rates |  |  |  |  |  |  |  |  |  |  |
| 9 | Operations \& Maintenance Expenses | \$ | 518,818,335 | \$ | 266,117,779 | \$ | 72,886,461 | \$ | 163,568,287 | \$ | 16,245,808 |
| 10 | Depreciation Expense |  | 277,353,828 |  | 137,219,058 |  | 41,044,126 |  | 96,606,200 |  | 2,484,445 |
| 11 | Amortization Expense |  | 54,256,114 |  | 24,833,614 |  | 7,839,059 |  | 21,057,765 |  | 525,676 |
| 12 | Taxes Other Than Income Taxes |  | 27,273,590 |  | 13,655,824 |  | 3,912,741 |  | 8,831,412 |  | 873,614 |
| 13 | Fuel Expenses |  | 512,591,028 |  | 202,546,097 |  | 69,403,163 |  | 237,570,930 |  | 3,070,839 |
| 14 | Non-FAC Trackable Fuel Expenses |  | 48,077,469 |  | 21,100,924 |  | 6,905,939 |  | 19,952,314 |  | 118,293 |
| 15 | Income Taxes |  | 14,111,753 |  | $(1,751,340)$ |  | 5,763,475 |  | 11,204,489 |  | $(1,104,871)$ |
| 16 | Total Expenses - Current | \$ | 1,452,482,118 | \$ | 663,721,956 | \$ | 207,754,964 | \$ | 558,791,397 | \$ | 22,213,802 |
| 17 | Current Operating Income |  | 151,040,619 |  | 34,518,738 |  | 38,949,688 |  | 81,777,305 |  | $(4,205,112)$ |
| 18 | Return at Current Rates |  | 4.34\% |  | 2.00\% |  | 7.81\% |  | 6.71\% |  | -11.18\% |
| 19 | Relative Rate of Return |  | 1.00 |  | 0.46 |  | 1.80 |  | 1.55 |  | (2.58) |
|  | Revenue Requirement at Equal Rates of Return at Current Rates |  |  |  |  |  |  |  |  |  |  |
| 20 | Required Return |  | 4.34\% |  | 4.34\% |  | 4.34\% |  | 4.34\% |  | 4.34\% |
| 21 | Required Operating Income | \$ | 151,040,619 | \$ | 74,886,748 | \$ | 21,624,275 | \$ | 52,897,956 | \$ | 1,631,640 |

## Summary of Results



## Summary of Results



## Summary of Results



## Summary of Results

| Line No. | Description |  | System Total |  | Residential |  | Small C\&I |  | Large C\&I |  | Lighting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) |  | (B) |  | (C) |  | (D) |  | (E) |  | (F) |
|  | Total Revenue Requirement |  |  |  |  |  |  |  |  |  |  |
| 223 | Demand | \$ | 986,865,711 | \$ | 445,764,878 | \$ | 142,117,666 | \$ | 396,023,758 | \$ | 2,959,409 |
| 224 | Customer | \$ | 213,372,414 | \$ | 155,978,369 | \$ | 29,913,552 | \$ | 7,109,284 | \$ | 20,371,209 |
| 225 | Energy | \$ | 24,935,353 | \$ | 9,852,998 | \$ | 3,376,166 | \$ | 11,556,806 | \$ | 149,383 |
| 226 | Fuel | \$ | 512,591,028 | \$ | 202,546,097 | \$ | 69,403,163 | \$ | 237,570,930 | \$ | 3,070,839 |
| 227 | Total | \$ | 1,737,764,507 | \$ | 814,142,342 | \$ | 244,810,547 | \$ | 652,260,779 | \$ | 26,550,839 |
| 228 | Zero-Check |  | - |  | - |  | - |  | - |  | - |
|  | Billing Determinants |  |  |  |  |  |  |  |  |  |  |
| 229 | Demand |  | 14,051,478 |  | 0 |  | 0 |  | 14,051,478 |  | 0 |
| 230 | Customer Bills (Count *12) |  | 6,341,275 |  | 5,606,853 |  | 667,874 |  | 54,558 |  | 11,990 |
| 231 | Energy |  | 13,039,005,303 |  | 5,125,131,351 |  | 1,756,145,046 |  | 6,080,025,837 |  | 77,703,069 |
| 232 | Fuel |  | 13,039,005,303 |  | 5,125,131,351 |  | 1,756,145,046 |  | 6,080,025,837 |  | 77,703,069 |
|  | Unit Costs |  |  |  |  |  |  |  |  |  |  |
| 233 | Demand |  |  | \$ | - | \$ | - | \$ | 28.18 | \$ | - |
| 234 | Customer |  |  | \$ | 107.32 | \$ | 257.58 | \$ | 130.31 | \$ | 1,945.84 |
| 235 | Energy |  |  | \$ | 0.001922 | \$ | 0.001922 | \$ | 0.001901 | \$ | 0.001922 |
| 236 | Fuel | . |  | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039074 | \$ | 0.039520 |
| 237 | Demand Revenue |  |  | \$ | - | \$ | - | \$ | 396,023,758 | \$ | - |
| 238 | Customer Revenue |  |  |  | 601,743,247 |  | 172,031,218 |  | 7,109,284 |  | 23,330,617 |
| 239 | Energy Revenue |  |  |  | 9,852,998 |  | 3,376,166 |  | 11,556,806 |  | 149,383 |
| 240 | Fuel Revenue |  |  |  | 202,546,097 |  | 69,403,163 |  | 237,570,930 |  | 3,070,839 |
| 241 | Total Revenue |  |  |  | 814,142,342 |  | 244,810,547 |  | 652,260,779 |  | 26,550,839 |
| 242 | Zero-Check |  |  | \$ | - | \$ | - | \$ | - | \$ | - |

## Adjusted Revenue Requirement (Excluding Other Revenue and Off-System Sales Margin)

| 243 | Ratio of Base Revenue to Total Revenue |  | 95.92\% |  | 95.57\% |  | 96.45\% |  | 96.05\% |  | 98.78\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Revenue Requirement |  |  |  |  |  |  |  |  |  |  |
| 244 | Demand | \$ | 946,361,687 |  | 426,006,870 |  | 137,064,285 |  | 380,367,403 |  | 2,923,128 |
| 245 | Customer | \$ | 204,888,344 |  | 149,064,809 |  | 28,868,450 |  | 6,832,186 |  | 20,122,898 |
| 246 | Energy | \$ | 23,919,427 |  | 9,416,276 |  | 3,256,425 |  | 11,099,172 |  | 147,554 |
| 247 | Fuel | \$ | 512,591,028 | \$ | 202,546,097 | \$ | 69,403,163 | \$ | 237,570,930 | \$ | 3,070,839 |
| 248 | Total | \$ | 1,687,760,486 | \$ | 787,034,051 | \$ | 238,592,324 | \$ | 635,869,692 | \$ | 26,264,419 |
| 249 | Zero-Check |  | - |  | - |  | - |  | - |  | - |

## Summary of Results

| Line No. | Description |  | System Total |  | Residential |  | Small C\&I |  | Large C\&I |  | Lighting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) |  | (B) |  | (C) |  | (D) |  | (E) |  | (F) |
|  | Billing Determinants |  |  |  |  |  |  |  |  |  |  |
| 250 | Demand |  | 14,051,478 |  | 0 |  | 0 |  | 14,051,478 |  | 0 |
| 251 | Customer Bills (Count *12) |  | 6,341,275 |  | 5,606,853 |  | 667,874 |  | 54,558 |  | 11,990 |
| 252 | Energy |  | 13,039,005,303 |  | 5,125,131,351 |  | 1,756,145,046 |  | 6,080,025,837 |  | 77,703,069 |
| 253 | Fuel |  | 13,039,005,303 |  | 5,125,131,351 |  | 1,756,145,046 |  | 6,080,025,837 |  | 77,703,069 |
|  | Unit Costs |  |  |  |  |  |  |  |  |  |  |
| 254 | Demand | . |  | \$ | - | \$ | - | \$ | 27.07 | \$ | - |
| 255 | Customer | . |  | \$ | 102.57 | \$ | 248.45 | \$ | 125.23 | \$ | 1,922.10 |
| 256 | Energy |  |  | \$ | 0.001837 | \$ | 0.001854 | \$ | 0.001826 | \$ | 0.001899 |
| 257 | Fuel | . |  | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039074 | \$ | 0.039520 |
| 258 | Demand Revenue |  |  | \$ | - | \$ | - | \$ | 380,367,403 | \$ | - |
| 259 | Customer Revenue |  |  |  | 575,071,679 |  | 165,932,736 |  | 6,832,186 |  | 23,046,026 |
| 260 | Energy Revenue |  |  |  | 9,416,276 |  | 3,256,425 |  | 11,099,172 |  | 147,554 |
| 261 | Fuel Revenue |  |  |  | 202,546,097 |  | 69,403,163 |  | 237,570,930 |  | 3,070,839 |
| 262 | Total Revenue | . |  |  | 787,034,051 |  | 238,592,324 |  | 635,869,692 |  | 26,264,419 |
| 263 | Zero-Check | . |  | \$ | - | \$ | - | \$ | - | \$ | - |
|  | Grid Facility |  |  |  |  |  |  |  |  |  |  |
| 264 | Grid Facility - Revenue Requirement | \$ | 469,384,914 |  | 276,055,504 |  | 67,280,102 |  | 104,665,839 |  | 21,383,468 |
| 265 | Grid Facility - Unit Costs | \$ | 74.02 | \$ | 49.24 | \$ | 100.74 | \$ | 1,918.43 | \$ | 1,783.44 |
|  | Mitigated Revenue Requirement (Excluding Other Revenue and Off-System Sales Margin) |  |  |  |  |  |  |  |  |  |  |
| 266 | Ratio of Base Revenue to Total Revenue |  | 97.12\% |  | 96.67\% |  | 97.46\% |  | 97.49\% |  | 98.92\% |
| 267 | Mitigated Amount |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
|  | Total Revenue Requirement |  |  |  |  |  |  |  |  |  |  |
| 268 | Demand | \$ | 956,319,374 |  | 405,224,410 |  | 145,758,470 |  | 403,152,029 |  | 2,184,466 |
| 269 | Customer | \$ | 194,930,657 |  | 141,792,782 |  | 31,249,100 |  | 7,254,046 |  | 14,634,728 |
| 270 | Energy | \$ | 23,919,427 | \$ | 9,416,276 | \$ | 3,256,425 | \$ | 11,099,172 | \$ | 147,554 |
| 271 | Fuel | \$ | 512,591,028 | \$ | 202,546,097 | \$ | 69,403,163 | \$ | 237,570,930 | \$ | 3,070,839 |
| 272 | Total | \$ | 1,687,760,486 | \$ | 758,979,565 | \$ | 249,667,157 | \$ | 659,076,177 | \$ | 20,037,587 |
| 273 | Zero-Check |  | - |  | $(28,054,487)$ |  | 11,074,834 |  | 23,206,485 |  | $(6,226,833)$ |
|  | Billing Determinants |  |  |  |  |  |  |  |  |  |  |
| 274 | Demand |  | 14,051,478 |  | 0 |  | 0 |  | 14,051,478 |  | 0 |
| 275 | Customer Bills (Count *12) |  | 6,341,275 |  | 5,606,853 |  | 667,874 |  | 54,558 |  | 11,990 |
| 276 | Energy |  | 13,039,005,303 |  | 5,125,131,351 |  | 1,756,145,046 |  | 6,080,025,837 |  | 77,703,069 |
| 277 | Fuel |  | 13,039,005,303 |  | 5,125,131,351 |  | 1,756,145,046 |  | 6,080,025,837 |  | 77,703,069 |

## Summary of Results

| Line <br> No. | Description | System Total |  | Residential |  | Small C\&I |  | Large C\&I |  | Lighting |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) |  | (B) | (C) |  | (D) |  | (E) |  | (F) |  |
|  | Unit Costs |  |  |  |  |  |  |  |  |  |  |
| 278 | Demand |  |  | \$ | - | \$ | - | \$ | 28.69 | \$ | - |
| 279 | Customer |  |  | \$ | 97.56 | \$ | 265.03 | \$ | 132.96 | \$ | 1,402.77 |
| 280 | Energy |  |  | \$ | 0.001837 | \$ | 0.001854 | \$ | 0.001826 | \$ | 0.001899 |
| 281 | Fuel |  |  | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039074 | \$ | 0.039520 |
| 282 | Demand Revenue |  |  | \$ | - | \$ | - | \$ | 403,152,029 | \$ | - |
| 283 | Customer Revenue |  |  |  | 547,017,193 |  | 177,007,570 |  | 7,254,046 |  | 16,819,194 |
| 284 | Energy Revenue |  |  |  | 9,416,276 |  | 3,256,425 |  | 11,099,172 |  | 147,554 |
| 285 | Fuel Revenue |  |  |  | 202,546,097 |  | 69,403,163 |  | 237,570,930 |  | 3,070,839 |
| 286 | Total Revenue |  |  |  | 758,979,565 |  | 249,667,157 |  | 659,076,177 |  | 20,037,587 |
| 287 | Zero-Check | . |  | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Revenue Requirement (Excluding Fuel) |  |  |  |  |  |  |  |  |  |  |  |
| 288 | Demand | \$ | 956,319,374 | \$ | 405,224,410 | \$ | 145,758,470 | \$ | 403,152,029 | \$ | 2,184,466 |
| 289 | Customer | \$ | 194,930,657 | \$ | 141,792,782 | \$ | 31,249,100 | \$ | 7,254,046 | \$ | 14,634,728 |
| 290 | Energy | \$ | 23,919,427 | \$ | 9,416,276 | \$ | 3,256,425 | \$ | 11,099,172 | \$ | 147,554 |
| 291 | Total | \$ | 1,175,169,458 | \$ | 556,433,468 | \$ | 180,263,995 | \$ | 421,505,247 | \$ | 16,966,748 |
| 292 | Percent of Total |  | 100.00\% |  | 47.35\% |  | 15.34\% |  | 35.87\% |  | 1.44\% |
| 293 | Zero-Check |  | (0) |  | $(28,054,487)$ |  | 11,074,834 |  | 23,206,485 |  | $(6,226,833)$ |

Class Cost of Service Study Summary of Results


## Summary of Results



## Summary of Results



## Functional Revenue Requirement

| Demand |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 189 | Production | \$ | 711,021,342 | \$ | 312,884,412 | \$ | 69,319,431 | \$ | 35,905 | \$ | 32,174,016 | \$ | 688,469 | \$ | 18,490 | \$ | 50,912 |
| 190 | Transmission | \$ | 101,626,050 | \$ | 44,720,468 | \$ | 9,907,804 | \$ | 5,132 | \$ | 4,598,622 | \$ | 98,403 | \$ | 2,643 | \$ | 7,277 |
| 191 | Distribution | \$ | 51,596,047 | \$ | 25,645,071 | \$ | 4,537,243 | \$ | 1,982 | \$ | 2,730,448 | \$ | 56,882 | \$ | 1,639 | \$ | 5,419 |
| 192 | Distribution Primary | \$ | 104,397,019 | \$ | 51,889,033 | \$ | 9,180,444 | \$ | 4,010 | \$ | 5,524,660 | \$ | 115,093 | \$ | 3,317 | \$ | 10,965 |
| 193 | Distribution Secondary | \$ | 18,225,252 | \$ | 10,625,895 | \$ | 1,879,801 | \$ | 821 | \$ | 1,131,346 | \$ | 23,569 | \$ | 679 | \$ | 2,245 |
| 194 | Customer | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| 195 | Customer Service | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| 196 | Fuel Expenses | \$ |  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |  |
| 197 | Total | \$ | 986,865,711 | \$ | 445,764,878 | \$ | 94,824,723 | \$ | 47,851 | \$ | 46,159,092 | \$ | 982,415 | \$ | 26,768 | \$ | 76,818 |
| 198 | Zero-Check |  | - |  |  |  | - |  | - |  | - |  | - |  | - |  | - |
| Customer |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 199 | Production | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| 200 | Transmission | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| 201 | Distribution | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ |  | \$ | - |
| 202 | Distribution Primary | \$ | 66,515,141 | \$ | 58,811,613 | \$ | 6,437,970 | \$ | 67,215 | \$ | 476,904 | \$ | 2,895 | \$ | 10,689 | \$ | 9,818 |
| 203 | Distribution Secondary | \$ | 22,196,237 | \$ | 19,633,320 | \$ | 2,148,415 | \$ | 22,439 | \$ | 159,207 | \$ | 966 | \$ | 3,568 | \$ | 3,278 |
| 204 | Customer | \$ | 74,007,300 | \$ | 40,603,550 | \$ | 10,873,466 | \$ | 46,405 | \$ | 940,964 | \$ | 7,004 | \$ | 14,677 | \$ | 14,356 |
| 205 | Customer Service | \$ | 50,653,735 | \$ | 36,929,886 | \$ | 8,036,236 | \$ | 12,573 | \$ | 595,298 | \$ | 3,614 | \$ | 13,342 | \$ | 12,255 |
| 206 | Fuel Expenses | \$ |  | \$ |  | \$ | - | \$ |  | \$ | - | \$ |  | \$ |  | \$ |  |
| 207 | Total | \$ | 213,372,414 | \$ | 155,978,369 | \$ | 27,496,087 | \$ | 148,632 | \$ | 2,172,372 | \$ | 14,479 | \$ | 42,276 | \$ | 39,707 |
| 208 | Zero-Check |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| Energy |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 209 | Production | \$ | 24,935,353 | \$ | 9,852,998 | \$ | 2,392,290 | \$ | 1,721 | \$ | 949,735 | \$ | 29,582 | \$ | 749 | \$ | 2,090 |
| 217 | Total | \$ | 24,935,353 | \$ | 9,852,998 | \$ | 2,392,290 | \$ | 1,721 | \$ | 949,735 | \$ | 29,582 | \$ | 749 | \$ | 2,090 |
| 218 | Zero-Check | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| Fuel |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 219 | Fuel Expenses | \$ | 512,591,028 | \$ | 202,546,097 | \$ | 49,177,815 | \$ | 35,374 | \$ | 19,523,504 | \$ | 608,115 | \$ | 15,388 | \$ | 42,967 |
| 220 | Total | \$ | 512,591,028 | \$ | 202,546,097 | \$ | 49,177,815 | \$ | 35,374 | \$ | 19,523,504 | \$ | 608,115 | \$ | 15,388 | \$ | 42,967 |
| 221 | Zero-Check |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
| 222 | Total |  | 1,737,764,507 |  | 814,142,342 |  | 173,890,914 |  | 233,577 |  | 68,804,702 |  | 1,634,591 |  | 85,180 |  | 161,582 |
| Total Revenue Requirement |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 223 | Demand | \$ | 986,865,711 | \$ | 445,764,878 | \$ | 94,824,723 | \$ | 47,851 | \$ | 46,159,092 | \$ | 982,415 | S | 26,768 | \$ | 76,818 |
| 224 | Customer | \$ | 213,372,414 | \$ | 155,978,369 | \$ | 27,496,087 | \$ | 148,632 | \$ | 2,172,372 | \$ | 14,479 | \$ | 42,276 | \$ | 39,707 |
| 225 | Energy | \$ | 24,935,353 | \$ | 9,852,998 | \$ | 2,392,290 | \$ | 1,721 | \$ | 949,735 | \$ | 29,582 |  | 749 | \$ | 2,090 |
| 226 | Fuel | \$ | 512,591,028 | \$ | 202,546,097 | \$ | 49,177,815 | \$ | 35,374 | \$ | 19,523,504 | \$ | 608,115 | \$ | 15,388 | \$ | 42,967 |
| 227 | Total | \$ | 1,737,764,507 | \$ | 814,142,342 | \$ | 173,890,914 | \$ | 233,577 | \$ | 68,804,702 | \$ | 1,634,591 | \$ | 85,180 | \$ | 161,582 |

## Summary of Results

| LineNo. | Description | System Total |  |  |  | Secondary Small |  |  | Municipal Device | Space Conditioning |  | Conditioning Schools |  | Water Heating Controlled |  | Water Heating Uncontrolled |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | RS |  | Ss |  | MD |  | SH |  | SE |  | CB |  | UW |
|  | (A) |  | (B) |  | (C) |  | (D) |  | (E) |  | (F) |  | (G) |  | (H) |  | (I) |
|  | Billing Determinants |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 229 | Demand |  | 14,051,478 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 230 | Customer Bills (Count *12) |  | 6,341,275 |  | 5,606,853 |  | 613,769 |  | 6,408 |  | 45,466 |  | 276 |  | 1,019 |  | 936 |
| 231 | Energy |  | 13,039,005,303 |  | 5,125,131,351 |  | 1,244,372,341 |  | 895,098 |  | 494,013,569 |  | 15,387,457 |  | 389,372 |  | 1,087,210 |
| 232 | Fuel |  | 13,039,005,303 |  | 5,125,131,351 |  | 1,244,372,341 |  | 895,098 |  | 494,013,569 |  | 15,387,457 |  | 389,372 |  | 1,087,210 |
|  | Unit Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 233 | Demand |  |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| 234 | Customer | . |  | \$ | 107.32 | \$ | 199.29 | \$ | 30.66 | \$ | 1,063.02 | \$ | 3,611.94 | \$ | 67.76 | \$ | 124.49 |
| 235 | Energy |  |  | \$ | 0.001922 | \$ | 0.001922 | \$ | 0.001922 | \$ | 0.001922 | \$ | 0.001922 | \$ | 0.001922 | \$ | 0.001922 |
| 236 | Fuel | . |  | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 |
| 237 | Demand Revenue | . |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ |  |
| 238 | Customer Revenue |  |  |  | 601,743,247 |  | 122,320,810 |  | 196,482 |  | 48,331,464 |  | 996,894 |  | 69,043 |  | 116,525 |
| 239 | Energy Revenue |  |  |  | 9,852,998 |  | 2,392,290 |  | 1,721 |  | 949,735 |  | 29,582 |  | 749 |  | 2,090 |
| 240 | Fuel Revenue |  |  |  | 202,546,097 |  | 49,177,815 |  | 35,374 |  | 19,523,504 |  | 608,115 |  | 15,388 |  | 42,967 |
| 241 | Total Revenue |  |  |  | 814,142,342 |  | 173,890,914 |  | 233,577 |  | 68,804,702 |  | 1,634,591 |  | 85,180 |  | 161,582 |
| 242 | Zero-Check |  |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | , | \$ | - |
|  | Adjusted Revenue Requirement |  | Revenue and Of |  | tem Sales Marg |  |  |  |  |  |  |  |  |  |  |  |  |
| 243 | Ratio of Base Revenue to Total Revenue |  | $\underline{\text { 95.92\% }}$ |  | 95.57\% |  | 96.52\% |  | 97.01\% |  | 96.29\% |  | 96.13\% |  | 97.77\% |  | 94.91\% |
|  | Total Revenue Requirement |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 244 | Demand | \$ | 946,361,687 | \$ | 426,006,870 | \$ | 91,525,619 | \$ | 46,417 | \$ | 44,448,739 | \$ | 944,432 | \$ | 26,171 | \$ | 72,907 |
| 245 | Customer | S | 204,888,344 | \$ | 149,064,809 | \$ | 26,539,454 | \$ | 144,180 | \$ | 2,091,878 | \$ | 13,919 | \$ | 41,333 | \$ | 37,686 |
| 246 | Energy | \$ | 23,919,427 | \$ | 9,416,276 | \$ | 2,309,058 | \$ | 1,669 | \$ | 914,544 | \$ | 28,438 | \$ | 732 | + | 1,984 |
| 247 | Fuel | \$ | 512,591,028 | \$ | 202,546,097 | \$ | 49,177,815 | \$ | 35,374 | \$ | 19,523,504 | \$ | 608,115 | \$ | 15,388 |  | 42,967 |
| 249 | Total | \$ | 1,687,760,486 | \$ | 787,034,051 | \$ | 169,551,947 | \$ | 227,641 | \$ | 66,978,664 | \$ | 1,594,905 | \$ | 83,624 | - | 155,543 |
|  | Zero-Check |  |  |  | - |  | - |  | , |  | , |  |  |  | - |  |  |
|  | Billing Determinants |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 250 | Demand |  | 14,051,478 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |  | 0 |
| 251 | Customer Bills (Count *12) |  | 6,341,275 |  | 5,606,853 |  | 613,769 |  | 6,408 |  | 45,466 |  | 276 |  | 1,019 |  | 936 |
| 252 | Energy |  | 13,039,005,303 |  | 5,125,131,351 |  | 1,244,372,341 |  | 895,098 |  | 494,013,569 |  | 15,387,457 |  | 389,372 |  | 1,087,210 |
| 253 | Fuel |  | 13,039,005,303 |  | 5,125,131,351 |  | 1,244,372,341 |  | 895,098 |  | 494,013,569 |  | 15,387,457 |  | 389,372 |  | 1,087,210 |
|  | Unit Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 254 | Demand | . |  | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
| 255 | Customer | . |  | \$ | 102.57 | \$ | 192.36 | \$ | 29.74 | \$ | 1,023.64 | \$ | 3,472.29 | \$ | 66.25 | \$ | 118.15 |
| 256 | Energy | . |  | \$ | 0.001837 | \$ | 0.001856 | \$ | 0.001865 | \$ | 0.001851 | \$ | 0.001848 | \$ | 0.001880 | \$ | 0.001825 |
| 257 | Fuel | . |  | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 | s | 0.039520 | \$ | 0.039520 |
| 258 | Demand Revenue | . |  | \$ | - | \$ | - | \$ | , | \$ | - | \$ | - | \$ | - | \$ | - |
| 259 | Customer Revenue | . |  |  | 575,071,679 |  | 118,065,074 |  | 190,598 |  | 46,540,617 |  | 958,351 |  | 67,504 |  | 110,592 |
| 260 | Energy Revenue | . |  |  | 9,416,276 |  | 2,309,058 |  | 1,669 |  | 914,544 |  | 28,438 |  | 732 |  | 1,984 |
| 261 | Fuel Revenue | . |  |  | 202,546,097 |  | 49,177,815 |  | 35,374 |  | 19,523,504 |  | 608,115 |  | 15,388 |  | 42,967 |
| 262 | Total Revenue | . |  |  | 787,034,051 |  | 169,551,947 |  | 227,641 |  | 66,978,664 |  | 1,594,905 |  | 83,624 |  | 155,543 |
| 263 | Zero-Check | . |  | \$ | 7,034,051 | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - |
|  | Grid Facility |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 264 | Grid Facility - Revenue Requirement | \$ | 469,384,914 | \$ | 276,055,504 | \$ | 51,157,376 | \$ | 155,768 | \$ | 15,558,758 | \$ | 296,500 | \$ | 49,427 | \$ | 62,273 |
| 265 | Grid Facility - Unit Costs | \$ | 74.02 | \$ | 49.24 | \$ | 83.35 | \$ | 24.31 | \$ | 342.21 | \$ | 1,074.28 | \$ | 48.51 | \$ | 66.53 |

## Summary of Results



Mitigated Revenue Requirement (Excluding Other Revenue and Off-System Sales Margin)
266


Total Revenue Requirement
Demand
Energy
Fuel
Zero-Check

Billing Determinants
Demand
Customer Bills (Count *12)
Energy
Fuel
Unit costs
Demand
Customer
Energy
Fuel
Demand Revenue
Customer Revenue
Energy Revenue
Fuel Revenue
Total Revenue
Zero-Check


Class Cost of Service Study Summary of Results

| Line No. | Description | System Total |  | Industrial |  | Industrial |  | Process Heating |  | Protective Lighting |  | Municipal Lighting |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | SL |  | PL-HL |  | PH |  | APL |  | MU1 |
|  | (A) |  | (B) |  | (J) |  | (K) |  | (L) |  | (M) |  | (N) |
|  | Rate Base |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | Plant in Service | \$ | 6,441,607,550 | \$ | 1,281,747,470 | \$ | 893,349,661 | \$ | 10,992,265 | \$ | 64,568,146 | \$ | 86,274,572 |
| 2 | Accumulated Reserve |  | (3,407, 234,585) |  | (658,929,084) |  | $(458,194,665)$ |  | $(5,679,695)$ |  | (55,914,260) |  | (66,914,927) |
| 3 | Other Rate Base Items |  | 447,532,786 |  | 90,876,611 |  | 64,506,617 |  | 775,625 |  | 4,084,789 |  | 5,515,514 |
| 4 | Total Rate Base | \$ | 3,481,905,751 | \$ | 713,694,997 | \$ | 499,661,614 | \$ | 6,088,195 | \$ | 12,738,675 | \$ | 24,875,160 |
|  | Revenues at Current Rates |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Retail Sales | \$ | 1,549,470,354 | \$ | 357,787,560 | \$ | 261,996,771 | \$ | 2,772,447 | \$ | 8,888,080 |  | 8,783,699 |
| 6 | Other Revenue |  | 25,440,327 |  | 3,600,063 |  | 2,544,834 |  | 29,536 |  | 118,723 |  | 150,456 |
| 7 | Off-System Slaes Margin |  | 28,612,056 |  | 6,835,562 |  | 4,952,308 |  | 49,622 |  | 38,474 |  | 29,258 |
| 8 | Total Revenues | \$ | 1,603,522,737 | \$ | 368,223,185 | \$ | 269,493,912 | \$ | 2,851,605 | \$ | 9,045,278 | \$ | 8,963,412 |
|  | Expenses at Current Rates |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | Operations \& Maintenance Expenses | \$ | 518,818,335 | \$ | 97,226,873 | \$ | 65,529,861 | \$ | 811,553 | \$ | 7,787,335 | \$ | 8,458,473 |
| 10 | Depreciation Expense |  | 277,353,828 |  | 56,465,390 |  | 39,695,685 |  | 445,124 |  | 1,013,583 |  | 1,470,861 |
| 11 | Amortization Expense |  | 54,256,114 |  | 12,216,866 |  | 8,747,386 |  | 93,513 |  | 237,900 |  | 287,776 |
| 12 | Taxes Other Than Income Taxes |  | 27,273,590 |  | 5,222,729 |  | 3,564,148 |  | 44,535 |  | 404,112 |  | 469,502 |
| 13 | Fuel Expenses |  | 512,591,028 |  | 128,504,645 |  | 108,037,241 |  | 1,029,044 |  | 1,725,711 |  | 1,345,128 |
| 14 | Non-FAC Trackable Fuel Expenses |  | 48,077,469 |  | 11,500,527 |  | 8,368,068 |  | 83,719 |  | 67,150 |  | 51,143 |
| 15 | Income Taxes |  | 14,111,753 |  | 7,030,440 |  | 4,139,403 |  | 34,646 |  | $(443,691)$ |  | (661,180) |
| 16 | Total Expenses - Current | \$ | 1,452,482,118 | \$ | 318,167,470 | \$ | 238,081,792 | \$ | 2,542,135 | \$ | 10,792,099 | \$ | 11,421,703 |
| 17 | Current Operating Income |  | 151,040,619 |  | 50,055,715 |  | 31,412,120 |  | 309,470 |  | $(1,746,821)$ |  | $(2,458,291)$ |
| 18 | Return at Current Rates |  | 4.34\% |  | 7.01\% |  | 6.29\% |  | 5.08\% |  | -13.71\% |  | -9.88\% |
| 19 | Relative Rate of Return |  | 1.00 |  | 1.62 |  | 1.45 |  | 1.17 |  | (3.16) |  | (2.28) |
|  | Revenue Requirement at Equal Rates of Return at Current Rates |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 | Required Return |  | 4.34\% |  | 4.34\% |  | 4.34\% |  | 4.34\% |  | 4.34\% |  | 4.34\% |
| 21 | Required Operating Income | \$ | 151,040,619 | \$ | 30,959,176 | \$ | 21,674,682 | \$ | 264,098 | \$ | 552,587 | \$ | 1,079,053 |
|  | Expenses at Required Return |  |  |  |  |  |  |  |  |  |  |  |  |
| 22 | Operations \& Maintenance Expenses | \$ | 518,818,335 | \$ | 97,226,873 | \$ | 65,529,861 | \$ | 811,553 | \$ | 7,787,335 | \$ | 8,458,473 |
| 23 | Depreciation Expense |  | 277,353,828 |  | 56,465,390 |  | 39,695,685 |  | 445,124 |  | 1,013,583 |  | 1,470,861 |
| 24 | Amortization Expense |  | 54,256,114 |  | 12,216,866 |  | 8,747,386 |  | 93,513 |  | 237,900 |  | 287,776 |
| 25 | Taxes Other than Income |  | 27,273,590 |  | 5,222,729 |  | 3,564,148 |  | 44,535 |  | 404,112 |  | 469,502 |
| 26 | Fuel Expenses |  | 512,591,028 |  | 128,504,645 |  | 108,037,241 |  | 1,029,044 |  | 1,725,711 |  | 1,345,128 |
| 27 | Non-FAC Trackable Fuel Expenses |  | 48,077,469 |  | 11,500,527 |  | 8,368,068 |  | 83,719 |  | 67,150 |  | 51,143 |
| 28 | Income Taxes |  | 14,111,753 |  | 2,892,522 |  | 2,025,069 |  | 24,675 |  | 51,628 |  | 100,816 |
| 29 | Total Expense - Required | \$ | 1,452,482,118 | \$ | 314,029,552 | \$ | 235,967,458 | \$ | 2,532,163 | \$ | 11,287,419 | \$ | 12,183,699 |
| 30 | Total Revenue Requirement at Equal Return | \$ | 1,603,522,737 | \$ | 344,988,728 | \$ | 257,642,140 | \$ | 2,796,261 | \$ | 11,840,006 | \$ | 13,262,752 |
| 31 | Current Subsidy | \$ | - | \$ | 23,234,457 | \$ | 11,851,772 | \$ | 55,344 | \$ | $(2,794,728)$ |  | $(4,299,340)$ |

## Summary of Results



## Summary of Results

| Line |  |  | Industrial | Industrial | Process Heating | Protective Lighting | Municipal Lighting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Description | System Total | SL | PL-HL | PH | APL | MU1 |

Functional Revenue Requirement

| 189 | Pemaduction |
| :--- | :--- |
| 190 | Transmission |
| 191 | Distribution |
| 192 | Distribution Primary |
| 193 | Distribution Secondary |
| 194 | Customer |
| 195 | Customer Service |
| 196 | Fuel Expenses |
| 197 | Total |
| 198 | Zero-Check |
|  | Customer |
| 199 | Production |
| 200 | Transmission |
| 201 | Distribution |
| 202 | Distribution Primary |
| 203 | Distribution Secondary |
| 204 | Customer |
| 205 | Customer Service |
| 206 | Fuel Expenses |
| 207 | Total |
| 208 | Zero-Check |
|  |  |
|  | Energy |
| 209 | Production |
| 217 | Total |
| 218 | Zero-Check |
|  | Fuel |
| 219 | Fuel Expenses |
| 220 | Total |
| 221 | Zero-Check |
|  | Total |
| 222 |  |
|  | Total Revenue Requirement |
| 223 | Demand |
| 224 | Customer |
| 225 | Energy |
| 226 | Fuel |
| 227 | Total |
| 228 | Zero-Check |
|  |  |

## Summary of Results

| Lin | Description | Industrial |  |  |  | Industrial |  | Process Heating |  | Protective Lighting |  | Municipal Lighting |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. |  |  | System Total |  | SL |  | PL-HL |  | PH |  | APL |  | MU1 |
|  | (A) |  | (B) |  | (J) |  | (K) |  | (L) |  | (M) |  | ( N$)$ |
| Billing Determinants |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 229 | Demand |  | 14,051,478 |  | 8,673,249 |  | 5,378,229 |  | 0 |  | 0 |  | 0 |
| 230 | Customer Bills (Count *12) |  | 6,341,275 |  | 52,422 |  | 1,884 |  | 252 |  | 0 |  | 11,990 |
| 231 | Energy |  | 13,039,005,303 |  | 3,251,621,209 |  | 2,802,366,178 |  | 26,038,450 |  | 43,666,570 |  | 34,036,499 |
| 232 | Fuel |  | 13,039,005,303 |  | 3,251,621,209 |  | 2,802,366,178 |  | 26,038,450 |  | 43,666,570 |  | 34,036,499 |
|  | Unit Costs |  |  |  |  |  |  |  |  |  |  |  |  |
| 233 | Demand |  |  | \$ | 26.61 | \$ | 30.36 | \$ | - | \$ | - | \$ | - |
| 234 | Customer |  |  | \$ | 129.81 | \$ | 143.52 | \$ | - |  | \#DIV/0! | \$ | 1,068.39 |
| 235 | Energy |  |  | \$ | 0.001922 | \$ | 0.001875 | \$ | 0.076849 | \$ | 0.001922 | \$ | 0.001922 |
| 236 | Fuel | . |  | \$ | 0.039520 | \$ | 0.038552 | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 |
| 237 | Demand Revenue |  |  | \$ | 230,838,108 | \$ | 163,268,691 | \$ | - | \$ | - | \$ | - |
| 238 | Customer Revenue |  |  |  | 6,804,877 |  | 270,385 |  | - |  | \#DIV/0! |  | 12,809,984 |
| 239 | Energy Revenue |  |  |  | 6,251,199 |  | 5,255,548 |  | 2,001,040 |  | 83,948 |  | 65,435 |
| 240 | Fuel Revenue |  |  |  | 128,504,645 |  | 108,037,241 |  | 1,029,044 |  | 1,725,711 |  | 1,345,128 |
| 241 | Total Revenue |  |  |  | 372,398,829 |  | 276,831,865 |  | 3,030,085 |  | \#DIV/0! |  | 14,220,547 |
| 242 | Zero-Check |  |  | \$ | - | \$ | - | \$ | - |  | \#DIV/0! | \$ | - |
|  | Adjusted Revenue Requirement (Excluding Other Revenue and O |  |  |  |  |  |  |  |  |  |  |  |  |
| 243 | $\underline{\text { Ratio of Base Revenue to Total Revenue }}$ | 95.92\% |  |  | 96.11\% |  | 95.96\% |  | 96.41\% |  | 98.76\% |  | 98.80\% |
|  | Total Revenue Requirement |  |  |  |  |  |  |  |  |  |  |  |  |
| 244 | Demand | \$ | 946,361,687 | \$ | 221,850,502 | \$ | 156,668,808 | \$ | 1,848,094 | \$ | 1,742,745 | \$ | 1,180,383 |
| 245 | Customer | \$ | 204,888,344 | \$ | 6,539,931 | \$ | 259,455 | \$ | 32,800 | \$ | 8,647,128 |  | 11,475,770 |
| 246 | Energy | \$ | 23,919,427 | \$ | 6,007,811 | \$ | 5,043,101 | \$ | 48,260 | \$ | 82,905 |  | 64,649 |
| 247 | Fuel | \$ | 512,591,028 | \$ | 128,504,645 | \$ | 108,037,241 | \$ | 1,029,044 | \$ | 1,725,711 | \$ | 1,345,128 |
| 248 | Total | \$ | 1,687,760,486 | \$ | 362,902,889 | \$ | 270,008,605 | \$ | 2,958,198 | \$ | 12,198,489 | \$ | 14,065,930 |
| 249 | Zero-Check |  | - |  | - |  | - |  | - |  |  |  |  |
|  | Billing Determinants |  |  |  |  |  |  |  |  |  |  |  |  |
| 250 | Demand |  | 14,051,478 |  | 8,673,249 |  | 5,378,229 |  | 0 |  | 0 |  | 0 |
| 251 | Customer Bills (Count *12) |  | 6,341,275 |  | 52,422 |  | 1,884 |  | 252 |  | 0 |  | 11,990 |
| 252 | Energy |  | 13,039,005,303 |  | 3,251,621,209 |  | 2,802,366,178 |  | 26,038,450 |  | 43,666,570 |  | 34,036,499 |
| 253 | Fuel |  | 13,039,005,303 |  | 3,251,621,209 |  | 2,802,366,178 |  | 26,038,450 |  | 43,666,570 |  | 34,036,499 |
|  | Unit Costs |  |  |  |  |  |  |  |  |  |  |  |  |
| 254 | Demand |  |  | \$ | 25.58 | \$ | 29.13 | \$ | - | \$ | - | \$ | - |
| 255 | Customer |  |  | \$ | 124.76 | \$ | 137.72 | \$ | 7,463.86 |  | \#DIV/0! | \$ | 1,055.56 |
| 256 | Energy |  |  | \$ | 0.001848 | \$ | 0.001800 | \$ | 0.074089 | \$ | 0.001899 | \$ | 0.001899 |
| 257 | Fuel | . |  | \$ | 0.039520 | \$ | 0.038552 | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 |
| 258 | Demand Revenue |  |  | \$ | 221,850,502 | \$ | 156,668,808 | \$ | - | \$ | - | \$ | - |
| 259 | Customer Revenue | . |  |  | 6,539,931 |  | 259,455 |  | 1,880,893 |  | \#DIV/0! |  | 12,656,153 |
| 260 | Energy Revenue | . |  |  | 6,007,811 |  | 5,043,101 |  | 1,929,154 |  | 82,905 |  | 64,649 |
| 261 | Fuel Revenue | . |  |  | 128,504,645 |  | 108,037,241 |  | 1,029,044 |  | 1,725,711 |  | 1,345,128 |
| 262 | Total Revenue | . |  |  | 362,902,889 |  | 270,008,605 |  | 4,839,091 |  | \#DIV/0! |  | 14,065,930 |
| 263 | Zero-Check | . |  | \$ | - | \$ | - | \$ | 1,880,893 |  | \#DIV/O! | \$ | - |
|  | Grid Facility |  |  |  |  |  |  |  |  |  |  |  |  |
| 264 | Grid Facility - Revenue Requirement | \$ | 469,384,914 | \$ | 65,137,600 | \$ | 38,836,174 | \$ | 692,065 | \$ | 9,445,652 | \$ | 11,937,817 |
| 265 | Grid Facility - Unit Costs | \$ | 74.02 | \$ | 1,242.56 | \$ | 20,613.68 | \$ | 2,746.29 |  | \#DIV/0! | \$ | 995.65 |

## Summary of Results

| Line |  |  |  | Industrial |  |  | Industrial | Process Heating |  | Protective Lighting |  | Municipal Lighting |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Description |  | System Total |  | SL |  | PL-HL |  | PH |  | APL |  | MU1 |
|  | (A) |  | (B) |  | (J) |  | (K) |  | (L) |  | (M) |  | (N) |
|  | Mitigated Revenue Requirement (Excluding Other Revenue and O |  |  |  |  |  |  |  |  |  |  |  |  |
| 266 | Ratio of Unmitigated Revenue to Mitigated Revenue |  | 100.00\% |  | 106.21\% |  | 105.71\% |  | 103.27\% |  | 79.59\% |  | 67.55\% |
| 267 | $\underline{\text { Mitigated Amount }}$ |  | (0) |  | 14,177,177 |  | 8,967,869 |  | 61,439 |  | (2,120,518) |  | $\underline{(4,106,315)}$ |
|  | Total Revenue Requirement |  |  |  |  |  |  |  |  |  |  |  |  |
| 268 | Demand | \$ | 956,319,374 | \$ | 235,621,717 | \$ | 165,621,850 | \$ | 1,908,462 | \$ | 1,387,060 | \$ | 797,406 |
| 269 | Customer | \$ | 194,930,657 | \$ | 6,945,893 | \$ | 274,282 | \$ | 33,871 | \$ | 6,882,295 | \$ | 7,752,433 |
| 270 | Energy | \$ | 23,919,427 | \$ | 6,007,811 | \$ | 5,043,101 | \$ | 48,260 | \$ | 82,905 | \$ | 64,649 |
| 271 | Fuel | \$ | 512,591,028 | \$ | 128,504,645 | \$ | 108,037,241 | \$ | 1,029,044 | \$ | 1,725,711 | \$ | 1,345,128 |
| 272 | Total | \$ | 1,687,760,486 | \$ | 377,080,066 | \$ | 278,976,474 | \$ | 3,019,637 | \$ | 10,077,971 | \$ | 9,959,616 |
| 273 | Zero-Check |  | - |  | - |  | - |  | - |  | - |  | - |
|  | Billing Determinants |  |  |  |  |  |  |  |  |  |  |  |  |
| 274 | Demand |  | 14,051,478 |  | 8,673,249 |  | 5,378,229 |  | 0 |  | 0 |  | 0 |
| 275 | Customer Bills (Count *12) |  | 6,341,275 |  | 52,422 |  | 1,884 |  | 252 |  | 0 |  | 11,990 |
| 276 | Energy |  | 13,039,005,303 |  | 3,251,621,209 |  | 2,802,366,178 |  | 26,038,450 |  | 43,666,570 |  | 34,036,499 |
| 277 | Fuel |  | 13,039,005,303 |  | 3,251,621,209 |  | 2,802,366,178 |  | 26,038,450 |  | 43,666,570 |  | 34,036,499 |
|  | Unit Costs |  |  |  |  |  |  |  |  |  |  |  |  |
| 278 | Demand | . |  | \$ | 27.17 | \$ | 30.79 | \$ | - | \$ | - | \$ | - |
| 279 | Customer | . |  | \$ | 132.50 | \$ | 145.59 | \$ | 7,707.67 |  | \#DIV/0! | \$ | 713.08 |
| 280 | Energy |  |  | \$ | 0.001848 | \$ | 0.001800 | \$ | 0.076448 | \$ | 0.001899 | \$ | 0.001899 |
| 281 | Fuel | . |  | \$ | 0.039520 | \$ | 0.038552 | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 |
| 282 | Demand Revenue |  |  | \$ | 235,621,717 | \$ | 165,621,850 | \$ | - | \$ | - | \$ | - |
| 283 | Customer Revenue | . |  |  | 6,945,893 |  | 274,282 |  | 1,942,333 |  | \#DIV/0! |  | 8,549,838 |
| 284 | Energy Revenue |  |  |  | 6,007,811 |  | 5,043,101 |  | 1,990,593 |  | 82,905 |  | 64,649 |
| 285 | Fuel Revenue | \$ | - |  | 128,504,645 |  | 108,037,241 |  | 1,029,044 |  | 1,725,711 |  | 1,345,128 |
| 286 | Total Revenue |  |  |  | 377,080,066 |  | 278,976,474 |  | 4,961,970 |  | \#DIV/0! |  | 9,959,616 |
| 287 | Zero-Check | . |  | \$ | - | \$ | - | \$ | 1,942,333 |  | \#DIV/0! | \$ | - |
|  | Total Revenue Requirement (Excluding Fuel) |  |  |  |  |  |  |  |  |  |  |  |  |
| 288 | Demand | \$ | 956,319,374 | \$ | 235,621,717 | \$ | 165,621,850 | \$ | 1,908,462 | \$ | 1,387,060 | \$ | 797,406 |
| 289 | Customer | \$ | 194,930,657 | \$ | 6,945,893 | \$ | 274,282 | \$ | 33,871 | + | 6,882,295 | \$ | 7,752,433 |
| 290 | Energy | \$ | 23,919,427 | \$ | 6,007,811 | \$ | 5,043,101 | \$ | 48,260 | \$ | 82,905 | \$ | 64,649 |
| 291 | Total | \$ | 1,175,169,458 | \$ | 248,575,421 | \$ | 170,939,233 | \$ | 1,990,593 | \$ | 8,352,261 | \$ | 8,614,487 |
| 292 | Percent of Total |  | 100.00\% |  | 21.15\% |  | 14.55\% |  | 0.17\% |  | 0.71\% |  | 0.73\% |
| 293 | Zero-Check |  | - |  | - |  | - |  | - |  | - |  | - |


|  |  | Current Revenue |  | Proposed Revenue |  | Acoss Deficiency at 7.22\% ROR |  | Acoss Rate Increase | Current Subsidy at $4.34 \%$ ROR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| System Total |  | \$ | 1,549,470,354 | \$ | 1,687,760,486 | \$ | $(138,290,132)$ | 8.92\% |  |  |
| Residential | RS | \$ | 669,367,989 | \$ | 787,034,051 | \$ | $(117,666,063)$ | 17.58\% | \$ | $(49,116,033)$ |
| Secondary Small [1] | Ss | \$ | 177,532,838 | \$ | 169,779,588 | \$ | 7,753,251 | -4.37\% | \$ | 21,583,051 |
| Space Conditioning | SH | \$ | 60,392,654 | \$ | 66,978,664 | \$ | $(6,586,010)$ | 10.91\% | \$ | $(770,844)$ |
| Space Conditioning - Schools | SE | \$ | 1,772,196 | \$ | 1,594,905 | \$ | 177,291 | -10.00\% | \$ | 299,993 |
| Water Heating - Controlled | CB | \$ | 48,109 | \$ | 83,624 | \$ | $(35,515)$ | 73.82\% | \$ | $(28,864)$ |
| Water Heating - Uncontrolled | Uw | \$ | 128,012 | \$ | 155,543 | \$ | $(27,531)$ | 21.51\% | \$ | $(14,809)$ |
| Secondary Large | SL | \$ | 357,787,560 | \$ | 362,902,889 | \$ | $(5,115,330)$ | 1.43\% | \$ | 23,234,457 |
| Primary Large | PL-HL | \$ | 261,996,771 | \$ | 270,008,605 | \$ | $(8,011,834)$ | 3.06\% | \$ | 11,851,772 |
| Process Heating | PH | \$ | 2,772,447 | \$ | 2,958,198 | \$ | $(185,751)$ | 6.70\% | \$ | 55,344 |
| Automatic Protective Lighting | APL | \$ | 8,888,080 | \$ | 12,198,489 | \$ | $(3,310,409)$ | 37.25\% | \$ | $(2,794,728)$ |
| Municipal Lighting | MU1 | \$ | 8,783,699 | \$ | 14,065,930 | \$ | $(5,282,231)$ | 60.14\% | \$ | $(4,299,340)$ |

Notes:
[1] Includes new rate code MD (Small Metered Device)
Increase Capped at 1.5 times System Increase

|  | Current Revenue |  | Proposed Revenue |  | Acoss Deficiency at 7.22\% ROR |  | ACOSS Rate Increase | Current Subsidy at $4.34 \% \mathrm{ROR}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| System Total | \$ | 1,549,470,354 | \$ | 1,687,760,486 | \$ | $(138,290,132)$ | 8.92\% |  |  |
| Residential | \$ | 669,367,989 | \$ | 787,034,051 | \$ | $(117,666,063)$ | 17.58\% | \$ | $(49,116,033)$ |
| Small C\&I | \$ | 239,873,810 | \$ | 238,592,324 | \$ | 1,281,486 | -0.53\% | \$ | 21,068,528 |
| Large C\&I | \$ | 622,556,777 | \$ | 635,869,692 | \$ | (13,312,915) | 2.14\% | \$ | 35,141,573 |
| Lighting | \$ | 17,671,779 | \$ | 26,264,419 | \$ | (8,592,640) | 48.62\% | \$ | $(7,094,068)$ |

Notes:
Increase Capped at 1.5 times System Increase


## AES Indiana

Class Cost of Service - Industrial Rate Classes
Test Year Ended December 31, 2022

|  |  |  | Primary Service (Large) | High Load Factor (Primary Distribution) | High Load Factor (Sub transmission) | High Load Factor (Transmission) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No. | Description | Industrial Total | PL | HLI | HL2 | HL3 |
|  | (A) | (B) | (C) | (D) | (E) | (F) |

## Functional Revenue Requirement

## Allocation of the Revenue Requirement - Demand Component

## Production

| Allocated Production Demand Cost | $\$$ | $123,066,876$ | $\$$ | $54,258,437$ | $\$$ | $51,404,576$ | $\$$ | $7,838,584$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |


| Transmission |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Allocated Transmission Demand Cost | 17,589,909 |  | \$ | 7,755,141 | \$ | 7,347,239 | \$ | 1,120,366 | \$ | 1,367,162 |
| Demand Billing Determinants |  | 5,378,229 |  | 2,361,422 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| Loss Factor Adjustment |  |  |  | 1.058 |  | 1.058 |  | 1.029 |  | 1.027 |
| Adjusted Demand Billing Determinants |  | 5,666,151 |  | 2,498,125 |  | 2,366,730 |  | 360,898 |  | 440,397 |
| Cost Allocation Factors |  | 100.00\% |  | 44.09\% |  | 41.77\% |  | 6.37\% |  | 7.77\% |
| Transmission Demand Charge | \$ | 3.27 | \$ | 3.28 | \$ | 3.28 | \$ | 3.19 | \$ | 3.19 |
| Total Production and Transmission | \$ | 140,656,784 | \$ | 62,013,578 | \$ | 58,751,816 | \$ | 8,958,950 | \$ | 10,932,441 |
| Demand Billing Determinants |  | 5,378,229 |  | 2,361,422 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| $\underline{\text { Production and Transmission Demand Charge }}$ | \$ | 26.15 | \$ | 26.26 | \$ | 26.26 | \$ | 25.54 | \$ | 25.50 |

Distribution and Distribution Primary

| Allocated Station Equipment | $\$$ | $7,479,082$ <br> $15,132,824$ |
| :--- | ---: | ---: |
| Allocated Primary Distribution Demand Cost | $\$$ | $22,611,906$ |
| Total Distribution |  |  |


| Demand Billing Determinants | 5,378,229 |  | 2,361,422 |  | 2,237,217 |  | 350,806 |  | 428,784 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Loss Factor Adjustment |  |  | 1.058 |  | 1.058 |  | - |  |  | - |
| Adjusted Demand Billing Determinants | 4,864,855 |  | 2,498,125 |  | 2,366,730 |  |  |  |  | - |
| Cost Allocation Factors | 100.00\% |  | 51.35\% |  | 48.65\% |  | 0.00\% |  |  | 0.00\% |
| Total Distribution and Distribution Primary | \$ | 22,611,906 | \$ | 11,611,317 | \$ | 11,000,590 | \$ | - | \$ | - |
| Demand Billing Determinants |  | 5,378,229 |  | 2,361,422 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| Distribution Demand Charge | \$ | 4.20 | \$ | 4.92 | \$ | 4.92 | \$ | - | \$ | - |
| Total Revenue Requirement - Demand Component | \$ | 163,268,691 | \$ | 73,624,894 | \$ | 69,752,405 | \$ | 8,958,950 | \$ | 10,932,441 |
| Demand Billing Determinants |  | 5,378,229 |  | 2,361,422 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| Total Demand Charge | \$ | 30.36 | \$ | 31.18 | \$ | 31.18 | \$ | 25.54 | \$ | 25.50 |

## Allocation of the Revenue Requirement - Customer Component

Distribution Primary

| Allocated Distribution Primary Cost | \$ | 19,762 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Customers |  | 151 |  |  |  |  |  |  |  |  |
| Distribution Primary Cost Per Customer | \$ | 131 |  |  |  |  |  |  |  |  |
| Number of Customers by Rate Class | 151 |  |  | 125 |  | 26 |  | - |  | - |
| Total Distribution Primary Cost | \$ | 19,762 | \$ | 16,359 | \$ | 3,403 | \$ |  | \$ |  |

## 39 Meter Costs



## AES Indiana

Class Cost of Service - Industrial Rate Classes
Test Year Ended December 31, 2022

|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |

AES Indiana
Class Cost of Service - Industrial Rate Classes
Test Year Ended December 31, 2022

|  |  |  |  | Primary Service (Large) |  | High LoadFactor (PrimaryDistribution) |  | High Load Factor (Sub transmission) |  | High Load Factor (Transmission) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No. | Description | Industrial Total |  |  | PL |  | HLI |  | HL2 |  | HL3 |
|  | (A) |  | (B) |  | (C) |  | (D) |  | (E) |  | (F) |
| 86 Adjusted Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues) | Adjusted Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues) |  |  |  |  |  |  |  |  |  |  |
| 87 | Other Revenue \& Sales for Resale |  |  |  |  |  |  |  |  |  |  |
| 88 | Total Base Revenue Excl. Fuel |  | 161,971,364 |  |  |  |  |  |  |  |  |
| 89 | Total Revenue Excl. Fuel |  | 168,794,624 |  |  |  |  |  |  |  |  |
| 90 | Ratio of Base Revenue to Total Revenue |  | 95.96\% |  |  |  |  |  |  |  |  |
| 91 | Total Functional Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues) |  |  |  |  |  |  |  |  |  |  |
| 92 | Demand | \$ | 156,668,808 | \$ | 70,648,722 | \$ | 66,932,773 | \$ | 8,596,799 | \$ | 10,490,514 |
| 93 | Customer |  | 259,455 |  | 199,781 |  | 46,986 |  | 8,535 |  | 4,153 |
| 94 | Energy |  | 5,043,101 |  | 2,010,651 |  | 2,279,587 |  | 314,020 |  | 438,843 |
| 95 | Fuel |  | 108,037,241 |  | 43,073,726 |  | 48,835,087 |  | 6,727,182 |  | 9,401,247 |
| 96 | Total Revenue Requirement Excl. Other Revenue | \$ | 270,008,605 | \$ | 115,932,880 | \$ | 118,094,432 | \$ | 15,646,536 | \$ | 20,334,757 |
| 97 | Check |  | TRUE |  |  |  |  |  |  |  |  |
| 98 | Billing Determinants |  |  |  |  |  |  |  |  |  |  |
| 99 | Demand |  | 5,378,229 |  | 2,361,422 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| 100 | Customer Bills |  | 1,896 |  | 1,500 |  | 312 |  | 60 |  | 24 |
| 101 | Energy |  | 2,736,049,378 |  | 1,087,387,867 |  | 1,232,832,303 |  | 173,222,008 |  | 242,607,200 |
| 102 | Fuel |  | 2,736,049,378 |  | 1,087,387,867 |  | 1,232,832,303 |  | 173,222,008 |  | 242,607,200 |
| 103 | Unit Costs |  |  |  |  |  |  |  |  |  |  |
| 104 | Demand | \$ | 29.13 | \$ | 29.92 | \$ | 29.92 | \$ | 24.51 | \$ | 24.47 |
| 105 | Customer | \$ | 136.84 | \$ | 133.19 | \$ | 150.60 | \$ | 142.25 | \$ | 173.04 |
| 106 | Energy | \$ | 0.001843 | \$ | 0.001849 | \$ | 0.001849 | \$ | 0.001813 | \$ | 0.001809 |
| 107 | Fuel | \$ | 0.039487 | \$ | 0.039612 | \$ | 0.039612 | \$ | 0.038836 | \$ | 0.038751 |

## Mitigated Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues)

Mitigation


Total Mitigated Functional Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues)

| Demand | \$ | 165,621,850 | \$ | 74,686,035 | \$ | 70,757,733 | \$ | 9,088,074 | \$ | 11,090,008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Customer |  | 274,282 |  | 211,198 |  | 49,671 |  | 9,023 |  | 4,390 |
| Energy |  | 5,043,101 |  | 2,010,651 |  | 2,279,587 |  | 314,020 |  | 438,843 |
| Fuel |  | 108,037,241 |  | 43,073,726 |  | 48,835,087 |  | 6,727,182 |  | 9,401,247 |
| Total Mitigated Revenue Requirement Excl. Other Revenue | \$ | 278,976,474 | \$ | 119,981,609 | \$ | 121,922,078 | \$ | 16,138,298 | \$ | 20,934,489 |
| Check |  | TRUE |  |  |  |  |  |  |  |  |
| Billing Determinants |  |  |  |  |  |  |  |  |  |  |
| Demand |  | 5,378,229 |  | 2,361,422 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| Customer Bills |  | 1,896 |  | 1,500 |  | 312 |  | 60 |  | 24 |
| Energy |  | 2,736,049,378 |  | 1,087,387,867 |  | 1,232,832,303 |  | 173,222,008 |  | 242,607,200 |
| Fuel |  | 2,736,049,378 |  | 1,087,387,867 |  | 1,232,832,303 |  | 173,222,008 |  | 242,607,200 |
| Unit Costs |  |  |  |  |  |  |  |  |  |  |
| Demand | \$ | 30.79 | \$ | 31.63 | \$ | 31.63 | \$ | 25.91 | \$ | 25.86 |
| Customer | \$ | 144.66 | \$ | 140.80 | \$ | 159.20 | \$ | 150.38 | \$ | 182.93 |
| Energy | \$ | 0.001843 | \$ | 0.001849 | \$ | 0.001849 | \$ | 0.001813 | \$ | 0.001809 |
| Fuel | \$ | 0.039487 | \$ | 0.039612 | \$ | 0.039612 | \$ | 0.038836 | \$ | 0.038751 |

## AES Indiana

Class Cost of Service - Industrial Rate Classes
Test Year Ended December 31, 2022

| Line No. | Description |  | dustrial Total | Primary Service (Large) |  | High Load Factor (Primary Distribution) |  | High Load Factor (Sub transmission) |  | High LoadFactor(Transmission) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) |  | (B) |  | (C) |  | (D) |  | (E) |  | (F) |
| 134 | Comparison of Current and Proposed Pro Forma Revenues |  |  |  |  |  |  |  |  |  |  |
| 135 | Total Current Revenue | \$ | 261,996,771 |  |  |  |  |  |  |  |  |
| 136 | Large Commercial Sales Revenue | \$ | 261,875,526 | \$ | 108,385,986 | \$ | 116,091,486 | \$ | 16,730,719 | \$ | 20,667,336 |
| 137 | Cost Allocation Factors |  | 100.00\% |  | 41.39\% |  | 44.33\% |  | 6.39\% |  | 7.89\% |
| 138 | Total Current Revenue Allocated | \$ | 261,996,771 | \$ | 108,436,167 | \$ | 116,145,235 | \$ | 16,738,465 | \$ | 20,676,905 |
| 139 | Unmitigated Proposed Revenue | \$ | 270,008,605 | \$ | 115,932,880 | \$ | 118,094,432 | \$ | 15,646,536 | \$ | 20,334,757 |
| 140 | Mitigated Proposed Revenue | \$ | 278,976,474 | \$ | 119,981,609 | \$ | 121,922,078 | \$ | 16,138,298 | \$ | 20,934,489 |
| 141 | Increase: Unmitigated - Current (\$) | \$ | 8,011,834 | \$ | 7,496,713 | \$ | 1,949,198 | \$ | $(1,091,929)$ | \$ | $(342,147)$ |
| 142 | Increase: Mitigated - Current (\$) | \$ | 16,979,703 | \$ | 11,545,443 | \$ | 5,776,843 | \$ | $(600,166)$ | \$ | 257,584 |
| 143 | Increase: Unmitigated - Current (\%) |  | 3.06\% |  | 6.91\% |  | 1.68\% |  | -6.52\% |  | -1.65\% |
| 144 | Increase: Mitigated - Current (\%) |  | 6.48\% |  | 10.65\% |  | 4.97\% |  | -3.59\% |  | 1.25\% |
| 145 | Industrial Rates Additional Mitigation |  |  |  |  |  |  |  |  |  |  |
| 146 | No Rate Reduction |  | 600,166 |  | - |  | - |  | 600,166 |  | - |
| 147 | Mitigate Rates with Increase |  | 600,166 |  | 273,967 |  | 278,398 |  | - |  | 47,802 |
| 148 | Mitigation |  | - |  | $(273,967)$ |  | $(278,398)$ |  | 600,166 |  | $(47,802)$ |
| 149 | Final Mitigated Proposed Revenues | \$ | 278,976,474 | \$ | 119,707,642 | \$ | 121,643,680 | \$ | 16,738,465 | \$ | 20,886,687 |
| 150 | Increase: Mitigated - Current (\%) |  | 6.48\% |  | 10.39\% |  | 4.73\% |  | 0.00\% |  | 1.01\% |
| 151 | Total Mitigated Functional Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues) |  |  |  |  |  |  |  |  |  |  |
| 152 | Demand | \$ | 165,622,241 | \$ | 74,412,841 | \$ | 70,479,531 | \$ | 9,687,645 | \$ | 11,042,225 |
| 153 | Customer |  | 273,891 |  | 210,425 |  | 49,476 |  | 9,618 |  | 4,371 |
| 154 | Energy |  | 5,043,101 |  | 2,010,651 |  | 2,279,587 |  | 314,020 |  | 438,843 |
| 155 | Fuel |  | 108,037,241 |  | 43,073,726 |  | 48,835,087 |  | 6,727,182 |  | 9,401,247 |
| 156 | Total Mitigated Revenue Requirement Excl. Other Revenue | \$ | 278,976,474 | \$ | 119,707,642 | \$ | 121,643,680 | \$ | 16,738,465 | \$ | 20,886,687 |
| 157 | Check |  | TRUE |  |  |  |  |  |  |  |  |
| 158 | Billing Determinants |  |  |  |  |  |  |  |  |  |  |
| 159 | Demand |  | 5,378,229 |  | 2,361,422 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| 160 | Customer Bills |  | 1,896 |  | 1,500 |  | 312 |  | 60 |  | 24 |
| 161 | Energy |  | 2,736,049,378 |  | 1,087,387,867 |  | 1,232,832,303 |  | 173,222,008 |  | 242,607,200 |
| 162 | Fuel |  | 2,736,049,378 |  | 1,087,387,867 |  | 1,232,832,303 |  | 173,222,008 |  | 242,607,200 |
| 163 | Unit Costs |  |  |  |  |  |  |  |  |  |  |
| 164 | Demand | \$ | 30.79 | \$ | 31.51 | \$ | 31.50 | \$ | 27.62 | \$ | 25.75 |
| 165 | Customer | \$ | 144.46 | \$ | 140.28 | \$ | 158.58 | \$ | 160.30 | \$ | 182.15 |
| 166 | Energy | \$ | 0.001843 | \$ | 0.001849 | \$ | 0.001849 | \$ | 0.001813 | \$ | 0.001809 |
| 167 | Fuel | \$ | 0.039487 | \$ | 0.039612 | \$ | 0.039612 | \$ | 0.038836 | \$ | 0.038751 |

## AES Indiana

Comparison of Current and Proposed Pro Forma Revenues

| Line No. | Rate Class | Rate Code | Current Revenue [1] |  | Unmitigated <br> Proposed <br> Revenue [1] |  | Mitigated <br> Proposed Revenue [1] |  | Increase: Unmitigated Current |  | Increase: <br> Mitigated [2] |  | Increase: Mitigated [3] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) | (B) |  | (C) |  | (D) |  | (E) |  | (F) |  | (G) | (H) |
| 1 | Residential Service (Rate RS) - Codes RS, RC, RH | RS | \$ | 669,367,989 | \$ | 787,034,051 | \$ | 758,979,565 | \$ | 117,666,063 | \$ | 89,611,576 | 13.39\% |
| 2 | Secondary Service (Small) (Rate SS) | SS |  | 177,168,155 |  | 169,551,947 |  | 179,935,305 |  | $(7,616,209)$ |  | 2,767,150 | 1.56\% |
| 3 | Municipal Device (Rate MD) | MD |  | 364,683 |  | 227,641 |  | 284,552 |  | $(137,042)$ |  | $(80,132)$ | -21.97\% |
| 4 | Electric Space Conditioning-Secondary Service (Rate SH) | SH |  | 60,392,654 |  | 66,978,664 |  | 67,475,406 |  | 6,586,010 |  | 7,082,751 | 11.73\% |
| 5 | Electric Space Conditioning-Schools (Rate SE) | SE |  | 1,772,196 |  | 1,594,905 |  | 1,772,196 |  | $(177,291)$ |  | - | 0.00\% |
| 6 | Water Heating-Controlled Service (Rate CB/CW) | CB |  | 48,109 |  | 83,624 |  | 54,550 |  | 35,515 |  | 6,441 | 13.39\% |
| 7 | Water Heating-Uncontrolled Service (Rate UW) | UW |  | 128,012 |  | 155,543 |  | 145,150 |  | 27,531 |  | 17,138 | 13.39\% |
| 8 | Secondary Service (Large) - (Rate SL) | SL |  | 357,787,560 |  | 362,902,889 |  | 377,080,066 |  | 5,115,330 |  | 19,292,506 | 5.39\% |
| 9 | Primary Service (Large) - (Rate PL) | PL |  | 108,436,167 |  | 115,932,880 |  | 119,707,642 |  | 7,496,713 |  | 11,271,476 | 10.39\% |
| 10 | Process Heating (Rate PH) | PH |  | 2,772,447 |  | 2,958,198 |  | 3,019,637 |  | 185,751 |  | 247,191 | 8.92\% |
| 11 | High Load Factor (Rate HL-1) (Primary Distribution) | HLI |  | 116,145,235 |  | 118,094,432 |  | 121,643,680 |  | 1,949,198 |  | 5,498,445 | 4.73\% |
| 12 | High Load Factor (Rate HL-2) (Sub transmission) | HL2 |  | 16,738,465 |  | 15,646,536 |  | 16,738,465 |  | $(1,091,929)$ |  | - | 0.00\% |
| 13 | High Load Factor (Rate HL-3) (Transmission) | HL3 |  | 20,676,905 |  | 20,334,757 |  | 20,886,687 |  | $(342,147)$ |  | 209,782 | 1.01\% |
| 15 | Automatic Protective Lighting (APL) | APL |  | 8,888,080 |  | 12,198,489 |  | 10,077,971 |  | 3,310,409 |  | 1,189,891 | 13.39\% |
| 16 | Municipal Lighting (MU) | MUI | \$ | 8,783,699 | \$ | 14,065,930 | \$ | 9,959,616 | \$ | 5,282,231 | \$ | 1,175,917 | 13.39\% |
| 17 | TOTAL SYSTEM |  | \$ | 1,549,470,354 | \$ | 1,687,760,486 | \$ | 1,687,760,486 | \$ | 138,290,132 | \$ | 138,290,132 | 8.92\% |

[1] From ACOSS.
[2] Col. (E) - (C) + (G)

## AES Indiana

Comparison of Current and Proposed Pro Forma Revenues

| Line No. |  | Rate Class |  | Current Revenue [1] |  |  | Unmitigated <br> Proposed <br> Revenue [1] |  | Mitigated <br> Proposed <br> Revenue [1] |  | Increase: Unmitigated Current |  | Increase: Mitigated [2] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (A) | (B) |  | (C) |  | (D) |  | (E) |  | (F) |  | (H) |
| 1 | Residential |  |  |  | 669,367,989 |  | 787,034,051 |  | 758,979,565 | \$ | 117,666,063 | \$ | 89,611,576 |
| 2 | Small C\&l |  |  |  | 239,873,810 |  | 238,592,324 |  | 249,667,157 | \$ | $(1,281,486)$ | \$ | 9,793,348 |
| 3 | Large C\&l |  |  |  | 622,556,777 |  | 635,869,692 |  | 659,076,177 | \$ | 13,312,915 | \$ | 36,519,400 |
| 4 | Lighting |  |  |  | 17,671,779 |  | 26,264,419 |  | 20,037,587 | \$ | 8,592,640 | \$ | 2,365,808 |
| 5 | TOTAL SYSTEM |  |  | \$ | 1,549,470,354 | \$ | 1,687,760,486 | \$ | 1,687,760,486 | \$ | 138,290,132 | \$ | 138,290,132 |

AES Indiana
Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022
Residential Service (RS, RC, RH, CR/CW)

AES Indiana
Pro Forma Revenue at Proposed Rates
est Year Ended December 31, 2022 Residential Service (RS, RC,RH, CR/CW)

Solved for Yellow Highlighted Cells Targeted Difference at Zero

Line
No.

Annualize
$\longrightarrow$

| Billed kwh |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| First 500 kWh | 2,424,883,300 | \$ | 0.104854 | \$ | 254,258,713 | \$ |  | \$ |  | \$ | 254,258,713 |
| Over 500 kWh | 1,791,614,708 | \$ | 0.089389 | \$ | 160,150,647 | \$ |  | \$ |  | \$ | 160,150,647 |
| Over 1,000 | 908,577,588 | \$ | 0.076975 | \$ | 69,937,760 | \$ |  | \$ |  | \$ | 69,937,760 |
| Resid (CR/CW) | 55,755 | \$ | 0.053587 | \$ | 2,988 | \$ | - | \$ |  | \$ | 2,988 |
| Total kWh | 5,125,131,351 | \$ | 0.094505 | \$ | 484,350,108 | \$ |  | \$ |  | \$ | 484,350,10 |



## Contract Riders

1 Electric Vehicle Revenue
2 No. 3 TDSIC
3 No. 6 Fuel Cost Adjustment
4 No. 7 Employee Discount
No. 9 Net Metering
No. 13 Air Conditioning Load Management
No. 20 Environmental Compliance Cost Recovery
No. 21 Green Power
No. 24 Capacity Adjustment
21 No. 26 Regional Transmission Organization Rider
22 Total Rider

23 Grand Total
Balancing Adjustment $\quad 1.00000$

Total Revenue \$ 669,367,989
$\$ \quad 669,369,860$
\$
No. 3 TDSIC

Grand Tota
 20,447,776 43,779,058 (115,630) 507,222 271,000
$22,279,604$ $22,279,604$
$7,661,000$ 591,000 95,457,201

Grad


Contract Riders
Electric Vehicle Revenue
No. 6 Fuel Cost Adjustment
No. 7 Employee Discount
No. 9 Net Metering
No. 13 Air Conditioning Load Management
No. 20 Environmental Compliance Cost Recovery
No. 21 Green Power
No. 22 Demand-Side Management Adjustment
No. 24 Capacity Adjustment No. 26 Regional Tdustment
otal Rider
$\xlongequal{\$ 758,979,565}$ \$
$\xlongequal{\$ 758,979,565}$

|  | \$ | 36,171 | \$ | - | \$ | - | \$ | 36,171 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | - | \$ | - | \$ | - | \$ | - |
|  | \$ | - | \$ | - | \$ | - | \$ | - |
|  | \$ | $(171,292)$ | \$ | - | \$ |  | \$ | $(171,292)$ |
|  | \$ | - | \$ | - | \$ | - | \$ | - |
|  | \$ | - | \$ | - | \$ | - | \$ | - |
| overy | \$ | - | \$ | - | \$ | - | \$ | - |
|  | \$ | 271,000 | \$ | - | \$ | - | \$ | 271,000 |
| ent | \$ | 14,014,000 | \$ | - | \$ | - | \$ | 14,014,000 |
|  | \$ | - | \$ | - | \$ | - | \$ | - |
| ider | \$ | - | \$ | - | \$ | - | \$ | - |
|  | \$ | 14,149,879 | \$ | - | \$ | - | \$ | 14,149,879 |
|  | \$ | 758,979,565 | \$ | - | \$ | - | \$ | 58,979,565 |
|  | TR |  |  |  |  |  |  |  |

AES Indiana Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022 Secondary Service (SS)

| Line |  | Annualized |  | Annualized |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Description | Volumes | Current Rate | Revenue | Adjustment | Adjustment | Total Revenue |
|  | (A) | (B) | (C) | (D) | (E) | (F) | (G) |
| Billed kwh |  |  |  |  |  |  |  |
| 1 | First $5,000 \mathrm{kWh}$ | 876,812,165 | 0.103072 | 90,374,784 | \$ - | \$ - | 90,374,784 |
| 2 | Over 5,000 | 367,560,176 | \$ 0.088592 | \$ 32,562,891 | \$ - | \$ - | 32,562,891 |
| 3 | Total kWh | 1,244,372,341 |  | \$ 122,937,675 | \$ - | \$ - | 122,937,675 |



## AES Indiana

Pro Forma Revenue at Proposed Rates Solved for Yellow Highlighted Cells

Test Year Ended December 31, 2022 secondary Service (SS)

Targeted Difference at Zero


Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022
Municipal Device (Small) (MD)


AES Indiana
Pro Forma Revenue at Proposed Rates Solved for Yellow Highlighted Cells Test Year Ended December 31, 2022 Municipal Device (Small) (MD)

AES Indiana
Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022
Secondary Service - Electric Space Conditioning Separately Metered (SH)

| Line | Description | Annualized | Curre | ent Rate | Annualized Revenue |  | Adjustment |  | Adjustment | Total Revenue |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) | (B) |  | (C) |  | (D) |  | (E) | (F) |  | (G) |
| Billed kwh |  |  |  |  |  |  |  |  |  |  |  |
| 1 | All kWh | 494,013,569 | \$ | 0.094917 | \$ | 46,890,286 |  | \$ | \$ - | \$ | 46,890,286 |
| Customer Charge |  |  |  |  |  |  |  |  |  |  |  |
| 2 | All Customers | 45,466 | \$ | 54.18 | \$ | 2,463,348 |  | \$ | \$ | \$ | 2,463,348 |
| 3 | Secondary Service (SH) |  |  |  | \$ | 49,353,634 |  | \$ | \$ - | \$ | 49,353,634 |
| Contract Riders |  |  |  |  |  |  |  |  |  |  |  |
| 4 | No. 3 TDSIC |  |  |  | \$ | 1,909,225 |  | \$ | \$ - | \$ | 1,909,225 |
| 5 | No. 6 Fuel Cost Adjustment |  |  |  | \$ | 4,219,417 |  | \$ | \$ | \$ | 4,219,417 |
| 6 | No. 9 Net Metering |  |  |  | \$ | - |  | \$ | \$ - | \$ | - |
| 7 | No. 13 Air Conditioning Load Management |  |  |  | \$ | - |  | \$ | \$ - | \$ | - |
| 8 | No. 15 Load Displacement |  |  |  | \$ | - |  | \$ | \$ - | \$ | - |
| 9 | No. 20 Environmental Compliance Cost Recovery |  |  |  | \$ | 47,360 |  | \$ | \$ - | \$ | 47,360 |
| 10 | No. 21 Green Power |  |  |  | \$ | 29,418 |  | \$ | \$ - | \$ | 29,418 |
| 11 | No. 22 Demand-Side Management Adjustment |  |  |  | \$ | 4,063,445 |  | \$ | \$ - | \$ | 4,063,445 |
| 12 | No. 24 Capacity Adjustment |  |  |  | \$ | 715,076 |  | \$ | \$ - | \$ | 715,076 |
| 13 | No. 26 Regional Transmission Organization Rider |  |  |  | \$ | 55,136 |  | \$ | \$ - | \$ | 55,136 |
| 14 | Total Rider |  |  |  | \$ | 11,039,076 |  | \$ | \$ | \$ | 11,039,076 |
| 15 | Grand Total |  |  |  | \$ | 60,392,709 |  | \$ | \$ - | \$ | 60,392,709 |
| 16 |  |  |  |  |  |  | Balancing Adjustment |  |  |  | 0.999999 |
| 17 |  |  |  |  |  |  |  |  | Total Revenue | \$ | 60,392,654 |

## AES Indiana Solved for Yellow Highlighted Cells <br> Pro Forma Revenue at Proposed Rates <br> Test Year Ended December 31, 2022 <br> Secondary Service - Electric Space Conditioning Separately Metered (SH)

| Description | Annualized Volumes |  | Proposed Rate |  | Revenue |  | Adjustment |  | Adjustment |  | al Revenue |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (H) | (I) |  | (J) |  | (K) |  | (L) |  | (M) |  | ( N$)$ |
| Billed kwh |  |  |  |  |  |  |  |  |  |  |  |
| All kWh | 494,013,569 | \$ | 0.128816 | \$ | 63,637,011 | \$ | - | \$ | - | \$ | 63,637,011 |
|  |  |  | Targe | \$ | 63,637,011 |  |  |  |  |  |  |
|  |  |  | Difference | \$ | 0 |  |  |  |  |  |  |
| Customer Charge |  |  |  |  |  | \$ |  | \$ | - | \$ | 2,500,630 |
| All Customers | 45,466 | \$ | 55.00 | \$ | 2,500,630 |  | - |  |  |  |  |
|  |  |  | Targe | \$ | 2,500,630 |  |  |  |  |  |  |
|  |  |  | Difference | \$ | - |  |  |  |  |  |  |
| Secondary Service (SH) |  |  |  | \$ | 66,137,641 | \$ | \$ - | \$ | \$ | \$ | 66,137,641 |
|  |  |  | Target | \$ | 66,137,641 |  |  |  |  |  |  |
|  |  |  | Difference | \$ | 0 |  |  |  |  |  |  |

Contract Riders

| No. 3 TDSIC | \$ | - | \$ | - | \$ | - | \$ | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. 6 Fuel Cost Adjustment | \$ | - | \$ | - | \$ | - | \$ | - |
| No. 9 Net Metering | \$ | - | \$ | - | \$ | - | \$ | - |
| No. 13 Air Conditioning Load Management | \$ | - | \$ | - | \$ | - | \$ | - |
| No. 15 Load Displacement | \$ | - | \$ | - | \$ | - | \$ | - |
| No. 20 Environmental Compliance Cost Recovery | \$ | - | \$ | - | \$ | - | \$ | - |
| No. 21 Green Power | \$ | 29,418 | \$ | - | \$ | - | \$ | 29,418 |
| No. 22 Demand-Side Management Adjustment | \$ | 1,308,346 | \$ | - | \$ | - | \$ | 1,308,346 |
| No. 24 Capacity Adjustment | \$ | - | \$ | - | \$ | - | \$ | - |
| No. 26 Regional Transmission Organization Rider | \$ | - | \$ | - | \$ | - | \$ | - |
| Total Rider | \$ | 1,337,765 | \$ | - | \$ | - | \$ | 1,337,765 |
| Grand Total | \$ | 67,475,406 | \$ | - | \$ | - | \$ | 67,475,406 |

AES Indiana
Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022
Secondary Service - Electric Space Conditioning Separately Metered Schools (SE)

| Line No. | Description | Annualized Volumes | Current Rate |  | Annualized Revenue | Adjustment | Adjustment | Total Revenue |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) | (B) | (C) |  | (D) | (E) | (F) | (G) |
| Billed kwh |  |  |  |  |  |  |  |  |
| 1 | First $5,000 \mathrm{kWh}$ | 1,124,896 | \$ 0.116280 | \$ | 130,803 | \$ - | \$ - | \$ 130,803 |
| 2 | Over 5,000 kWh | 1,949,520 | \$ 0.101800 | \$ | 198,461 | \$ - | \$ - | \$ 198,461 |
| 3 | Excess of $155 \times$ Connected load | 12,313,041 | \$ 0.088108 | \$ | 1,084,877 | \$ - | \$ - | \$ 1,084,877 |
|  | Total kWh | 15,387,457 |  | \$ | 1,414,141 | \$ - | \$ - | \$ 1,414,141 |
|  | Customer Charge |  |  |  |  |  |  |  |
| 4 | All Customers | 276 | 54.18 | \$ | 14,954 | \$ - | \$ - | \$ 14,954 |
| 5 | Secondary Service (SE) |  |  | \$ | 1,429,095 | \$ - | \$ - | \$ 1,429,095 |
|  | Contract Riders |  |  |  |  |  |  |  |
| 6 | No. 3 TDSIC |  |  | \$ | 59,468 | \$ - | \$ - | \$ 59,468 |
| 7 | No. 6 Fuel Cost Adjustment |  |  | \$ | 131,426 | \$ - | \$ - | \$ 131,426 |
| 8 | No. 9 Net Metering |  |  | \$ | - | \$ - | \$ - | \$ - |
| 9 | No. 13 Air Conditioning Load Management |  |  | \$ | - | \$ - | \$ - | \$ - |
| 10 | No. 15 Load Displacement |  |  | \$ | - | \$ - | \$ - | \$ - |
| 11 | No. 20 Environmental Compliance Cost Recovery |  |  | \$ | 1,475 | \$ - | \$ - | \$ 1,475 |
| 12 | No. 21 Green Power |  |  | \$ | 173 | \$ - | \$ - | 173 |
| 13 | No. 22 Demand-Side Management Adjustment |  |  | \$ | 126,568 | \$ - | \$ - | \$ 126,568 |
| 14 | No. 24 Capacity Adjustment |  |  | \$ | 22,273 | \$ - | \$ - | \$ 22,273 |
| 15 | No. 26 Regional Transmission Organization Rider |  |  | \$ | 1,717 | \$ | \$ - | \$ 1,717 |
| 16 | Total Rider |  |  | \$ | 343,100 | \$ - | \$ - | \$ 343,100 |
| 17 | Grand Total |  |  | \$ | 1,772,195 | \$ - | \$ - | \$1,772,195 |
| 18 |  |  |  |  |  | Balancing Adjustment |  | 1.0000 |
| 19 |  |  |  |  |  |  | otal Revenue | \$1,772,196 |
|  |  |  |  |  |  |  | Check | true |

AES Indiana
Pro Forma Revenue at Proposed Rates
Test Year Ended December 31, 2022
Secondary Service - Electric Space Conditioning Separately Metered Schools (SE)

Solved for Yellow Highlighted Cells Targeted Difference at Zero

Contac
No. 3 TDSIC
No. 6 Fuel Cost Adjustment
No. 9 Net Metering
No. 13 Air Conditioning Load Managemen
No. 15 Load Displacement
No. 20 Environmental Compliance Cost Recovery No. 21 Green Power
No. 22 Demand-Side Management Adjustment No. 24 Capacity Adjustment
No. 26 Regional Transmission Organization Rider
otal Rider
Grand Total


AES Indiana
Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022
Water Heating-Controlled Service (Rate CB)


Pro Forma Revenue at Proposed Rates
est Year Ended December 31, 2022
Water Heating-Controlled Service (Rate CB)

| Description | Annualized Volumes | Proposed Rate |  |  | Revenue | Adjustment |  |  | Adjustment |  | Total Revenue |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (H) | (I) |  | (J) |  | (K) |  | (L) |  | (M) |  |  | ( N ) |
| Billed kwh |  |  |  |  |  |  |  |  |  |  |  |  |
| All kWh | 389,372 | \$ | 0.072022 | \$ | 28,043 |  | \$ |  | \$ | - | \$ | 28,043 |
|  |  |  | Target | \$ | 28,043 |  |  |  |  |  |  |  |
|  |  |  | Difference | \$ | - |  |  |  |  |  |  |  |
| Customer Charge |  |  |  |  |  |  |  |  |  |  |  |  |
| All Customers | 1,019 | \$ | 25.00 | \$ | 25,475 |  | \$ |  | \$ | - | \$ | 25,475 |
|  |  |  | Target | \$ | 25,475 |  |  |  |  |  |  |  |
|  |  |  | Difference | \$ | - |  |  |  |  |  |  |  |
| Water Heating - Controlled (CB) |  |  |  | \$ | 53,518 |  | \$ |  | \$ |  | \$ | 53,518 |
|  |  |  | Target | \$ | 53,518 |  |  |  |  |  |  |  |
|  |  |  | Difference | \$ |  |  |  |  |  |  |  |  |

Contract Riders
No. 3 TDSIC
No. 6 Fuel Cost Adjustment
No. 9 Net Metering
No. 13 Air Condilitoning Load Management No. 20 Environmental Compliance Cost Recovery No. 21 Green Power
No. 22 Demand-Side Management Adjustmen No. 24 Capacity Adjustment
No. 26 Regional Iransmission Organization Rider Total Rider

Grand Total

Check $\xlongequal[\text { TRUE }]{\$ \quad 54,550} \$ \quad-\quad \$ \quad-\quad$| \$ 54,550 |
| :--- |

AES Indiana
Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022 Water Heating - Uncontrolled Service (UW)


## AES Indiana <br> Pro Forma Revenue at Proposed Rates <br> Test Year Ended December 31, 2022 <br> Water Heating - Uncontrolled Service (UW)

| Description | Annualized Volumes |  | roposed Rate |  | Revenue | Adjustment | Adjustment |  | Total Revenue |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (H) | (I) |  | (J) |  | (K) | (L) | (M) |  | ( N$)$ |
| Billed kwh |  |  |  |  |  |  |  |  |  |
| All kWh | 1,087,210 | \$ | 0.096421 | \$ | 104,830 | \$ - | \$ - | \$ | 104,830 |
|  |  |  | Target | \$ | 104,830 |  |  |  |  |
|  |  |  | Difference | \$ | 0 |  |  |  |  |
| Customer Charge |  |  |  |  |  |  |  |  |  |
| All Customers | 936 | \$ | 40.00 | \$ | 37,440 | \$ - | \$ | \$ | 37,440 |
|  |  |  | Target | \$ | 37,440 |  |  |  |  |
|  |  |  | Difference | \$ | - |  |  |  |  |
| Water Heating - Uncontrolled (UW) |  |  |  | \$ | 142,270 | \$ - | \$ - |  | 142,270 |
|  |  |  | Target | \$ | 142,270 |  |  |  |  |
|  |  |  | Difference | \$ | 0 |  |  |  |  |

Contact rid
No. 3 TDSIC
No. 6 Fuel Cost Adiustment
No. 9 Net Metering
No. 13 Air Conditioning Load Management
No. 20 Environmental Compliance Cost Recovery No. 21 Green Power
No. 22 Demand-Side Management Adjustment No. 24 Capacity Adjustment
No. 26 Regional Iransmission Organization Rider otal Rider

Targeted Difference at Zero


Grand Total

AES Indianc
Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022 Process Heating (PH)


AES Indiana
Pro Forma Revenue at Proposed Rates
Test Year Ended December 31, 2022
Process Heating (PH)


AES Indiana
Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022 Secondary Service (Large) (SL)


| AES Indiana | Solved for Yellow Highlighted Cells |
| :--- | :--- |
| Pro Forma Revenue at Proposed Rates | Targeted Difference at Zero |

Secondary Service (Large) (SL)


AES Indiana
Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022 Primary Service (Large) (PL)


## AES Indian <br> Pro Forma Revenue at Proposed Rates <br> Test Year Ended December 31, 2022

## Primary Service (Large) (PL)

| Description | Annualized Volumes | Propo | osed Rate |  | Revenue | Adjustment |  |  | Adjustment |  | Total Revenue |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (H) | (1) |  | (J) |  | (K) |  | (L) |  |  | (M) |  | ( N ) |
| Billed kwh |  |  |  |  |  |  |  |  |  |  |  |  |
| All kWh | 1,087,387,867 | \$ | 0.044734 | \$ | 48,643,109 | \$ |  | - | \$ | - | \$ | 48,643,109 |
|  |  |  | Target | \$ | 48,643,109 |  |  |  |  |  |  |  |
|  |  |  | Difference | \$ | - |  |  |  |  |  |  |  |
| Billed kW |  |  |  |  |  |  |  |  |  |  |  |  |
| All kW | 2,361,422 | \$ | 29.59 | \$ | 69,874,477 | \$ |  | - | \$ | - | \$ | 69,874,477 |
|  |  |  | Target | \$ | 69,874,477 |  |  |  |  |  |  |  |
|  |  |  | Difference | \$ |  |  |  |  |  |  |  |  |
| Power factor |  |  |  | \$ | (3,213,111) |  |  |  |  |  | \$ | (3,213,111) |
| Customer Charge |  |  |  |  |  |  |  |  |  |  |  |  |
| All Customers | 1,500 | \$ | 130.00 | \$ | 195,000 | \$ |  | - | \$ | - | \$ | 195,000 |
|  |  |  | Target | \$ | 195,000 |  |  |  |  |  |  |  |
|  |  |  | Difference | \$ | - |  |  |  |  |  |  |  |
| Primary Service (Large) (PL) |  |  |  | \$ | 115,499,475 | \$ |  | - | \$ | - |  | 115,499,475 |
|  |  | Targe |  | \$ | 115,499,475 |  |  |  |  |  |  |  |
|  |  | Differ | rence | \$ | - |  |  |  |  |  |  |  |
| Contract Riders |  |  |  |  |  |  |  |  |  |  |  |  |
| Special Contract Revenue |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
| Allocated CSC Revenues + DSM |  |  |  | \$ | 1,460,124 | \$ |  | - | \$ | - | \$ | 1,460,124 |
| No. 3 TDSIC |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
| No. 4 Additional Charges for other facilities |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
| No. 6 Fuel Cost Adjustment |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
| No. 8 Off Peak Service |  |  |  | \$ | $(180,277)$ | \$ |  | - | \$ | - | \$ | $(180,277)$ |
| No. 9 Net Metering |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
| No. 14 Interruptible Power |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
| No. 15 Load Displacement |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
| No. 17 Curtailment Energy |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
| No. 18 Curtailment Energy II |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
| No. 20 Environmental Compliance Cost Recovery |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
|  |  |  |  | \$ | 390,855 | \$ |  | - | \$ | - | \$ | 390,855 |
| No. 22 Demand-Side Management Adjustment |  |  |  | \$ | 2,537,466 | \$ |  | - | \$ | - | \$ | 2,537,466 |
| No. 24 Capacity Adjustment |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
| $\frac{\text { No. } 26 \text { Regional Transmission Organization Rider }}{\text { Total Rider }}$ |  |  |  | \$ | - | \$ |  | - | \$ | - | \$ | - |
|  |  |  |  | \$ | 4,208,168 | \$ |  | - | \$ | - | \$ | 4,208,168 |
| Grand Total |  |  |  | \$ | 119,707,642 | \$ |  | - | \$ | - |  | 119,707,642 |

Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022
High Load Factor Service - Primary (HL1)


## AES Indiana <br> Pro Forma Revenue at Proposed Rates <br> Test Year Ended December 31, 2022 <br> High Load Factor Service - Primary (HL1)

Pro Forma Revenue at Current Rates
Test Year Ended December 31, 2022
High Load Factor Service - Sub transmission (HL2)


Pro Forma Revenue at Proposed Rates
est Year Ended December 31, 2022
High Load Factor Service - Sub transmission (HL2)


AES Indiana
Lighting Revenue Proof

| Code Description | Inventory (Light Count) | kWh per Light | Total kWh | Separately Metered | Current Annual | Current Base | ProForma Adjustments | Current Revenue Proforma @ Present Rates | Current Rate with ECCR, RTO, DSM, CAP, TDSIC, and Fuel (Base Fuel and FCA) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (A) (B) | (C) | (D) | (E) | (F) | (G) | (H) | (I) | (J) | (K) |
| APL Company Installed, Owned, and Maintained (APL) |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 68175 WATL LIGHT | 9,251 | 832 | 7,696,832 |  | \$99.60 | \$921,400 | \$98,753 | \$1,020,152 | \$110.27 |
| 69400 WATT MV REDDY SENT. | 1,245 | 1,880 | 2,340,600 |  | \$187.92 | \$233,960 | \$30,031 | \$263,991 | \$212.04 |
| 701000 WATT MV REDDY SENT. | 75 | 4,315 | 323,625 |  | \$331.80 | \$24,885 | \$4,152 | \$29,037 | \$387.16 |
| 71100 WATT LIGHT | 6,316 | 485 | 3,063,260 |  | \$88.08 | \$556,313 | \$39,303 | \$595,616 | \$94.30 |
| 72150 WAT HPS REDDY SENT. | 975 | 733 | 714,675 |  | \$186.24 | \$181,584 | \$9,170 | \$190,754 | \$195.64 |
| 73250 WAT HPS REDDY SENT. | 1,027 | 1,194 | 1,226,238 |  | \$247.20 | \$253,874 | \$15,733 | \$269,607 | \$262.52 |
| 74400 WATT HPS REDDY SENT. | 1,115 | 1,848 | 2,060,520 |  | \$286.32 | \$319,247 | \$26,437 | \$345,684 | \$310.03 |
| 78175 WATT MV - SEC. METERED - OVERHEAD | 68 | 832 | 56,576 | Yes | \$72.12 | \$4,904 | \$0 | \$4,904 | \$72.12 |
| 79400 WATT MV - SEC. METERED OVERHEAD | 16 | 1,880 | 30,080 | Yes | \$139.80 | \$2,237 | \$0 | \$2,237 | \$139.80 |
| 801000 WATT MV - SEC. METERED - OVERHEAD | 1 | 4.315 | 4,315 | Yes | \$216.72 | \$217 | \$0 | \$217 | \$216.72 |
| 81100 WAT HPS - SEC. METERED - OVERHEAD | 19 | 485 | 9.215 | Yes | \$74.76 | \$1,420 | \$0 | \$1,420 | \$74.76 |
| 82150 WAT HPS - SEC. METERED - OVERHEAD | 1 | 733 | 733 | Yes | \$170.88 | \$171 | \$0 | \$171 | \$170.88 |
| 83250 WAT HPS - SEC. METERED - OVERHEAD | 2 | 1,194 | 2,388 | Yes | \$216.00 | \$432 | \$0 | \$432 | \$216.00 |
| 84400 WATT HPS - SEC. METERED - OVERHEAD | 12 | 1,848 | 22,176 | Yes | \$238.20 | \$2,858 | \$0 | \$2,858 | \$238.20 |
| 85 ENERGY AND CONTROL ONLY | 1 | 0 | 0 |  | \$42.24 | \$42 | \$0 | \$42 | \$42.24 |
| 86400 WAT MV FLOOD - OVERHEAD | 495 | 1,880 | 930,600 |  | \$188.16 | \$93,139 | \$11,940 | \$105,079 | \$212.28 |
| 87150 WATT HPS FLOOD - OVERHEAD | 490 | 733 | 359,170 |  | \$186.72 | \$91,493 | \$4,608 | \$96,101 | \$196.12 |
| 88250 WATT HPS FLOOD - OVERHEAD | 707 | 1,194 | 844,158 |  | \$247.32 | \$174,855 | \$10,831 | \$185,686 | \$262.64 |
| 89400 WAT HPS FLOOD - OVERHEAD | 5,792 | 1,848 | 10,703,616 |  | \$286.44 | \$1,659,060 | \$137,331 | \$1,796,391 | \$310.15 |
| 90400 WATT METAL HALIDE FLOOD - OVERHEAD | 1,044 | 1,774 | 1,852,056 |  | \$286.08 | \$298,668 | \$23,762 | \$322,430 | \$308.84 |
| 91400 WAT MV FLOOD - SEC. METERED | 6 | 1,880 | 11,280 | Yes | \$139.80 | \$839 | \$0 | \$839 | \$139.80 |
| 92150 WAT HPS FLOOD - SEC. Metered | 1 | 733 | 733 | Yes | \$170.88 | \$171 | \$0 | \$171 | \$170.88 |
| 93250 WAT HPS FLOOD - SEC. METERED | 6 | 1,194 | 7.164 | Yes | \$216.00 | \$1,296 | \$0 | \$1,296 | \$216.00 |
| 94400 WATT HPS FLOOD - SEC. METERED | 36 | 1,848 | 66,528 | Yes | \$238.20 | \$8,575 | \$0 | \$8,575 | \$238.20 |
| 95400 WATT METAL HALIDE FLOOD-SEC. METERED | 2 | 1,774 | 3,548 | Yes | \$238.20 | \$476 | \$0 | \$476 | \$238.20 |
| 96 - WOOD POLE WITH OVERHEAD FEED - | 7,555 | 0 | 0 |  | \$48.60 | \$367,173 | \$0 | \$367,173 | \$48.60 |
| 97 - WOOD POLE WITH UNDERGROUND FEED - | 815 | 0 | 0 |  | \$120.12 | \$97,898 | \$0 | \$97,898 | \$120.12 |
| 1261000 WATT MV - IST FIXTURE | 0 | 4,315 | 0 |  | \$0.00 | \$0 | \$0 | \$0 | \$55.36 |
| 127400 WAT MV-IST FIXTURE | 13 | 1,880 | 24,440 |  | \$277.56 | \$3,608 | \$314 | \$3,922 | \$301.68 |
| 128175 WAT MV-IST FIXTURE | , | 832 | 2,496 |  | \$224.88 | \$675 | \$32 | \$707 | \$235.55 |
| 129400 WATT HPS-IST FIXTURE | 133 | 1,848 | 245,784 |  | \$402.96 | \$53,594 | \$3,153 | \$56,747 | \$426.67 |
| 130250 WATT HPS-IST FIXTURE | 202 | 1,194 | 241,188 |  | \$271.20 | \$54,782 | \$3,095 | \$57,877 | \$286.52 |
| 131150 WATT HPS-IST FIXTURE | 182 | 733 | 133,406 |  | \$233.52 | \$42,501 | \$1,712 | \$44,212 | \$242.92 |
| 132100 WATT HPS- IST FIXTURE | 32 | 485 | 15,520 |  | \$214.56 | \$6,866 | \$199 | \$7,065 | \$220.78 |
| 135400 WATT HPS-I ST FIXTURE-SHOEBOX | 91 | 1,848 | 168,168 |  | \$334.92 | \$30,478 | \$2,158 | \$32,635 | \$358.63 |
| 136250 WAT HPS-1ST FIXTURE-SHOEBOX | 103 | 1,194 | 122,982 |  | \$273.00 | \$28,119 | \$1,578 | \$29,697 | \$288.32 |

AES Indiana
Lighting Revenue Proof

| Code Description | Inventory (Light Count) | kWh per Light | Total kWh | Separately Metered | Current Annual Base Rate Base Rate | Current Base Revenue | ProForma Adjustments | Current Revenue Proforma @ Present Rates | Current Rate with ECCR, RTO, DSM, CAP, TDSIC, and Fuel (Base Fuel and FCA) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 137400 WATT METAL HALIDE-1ST FIX-SHOEBOX | 370 | 1,774 | 656,380 |  | \$334.56 | \$123,787 | \$8,422 | \$132,209 | \$357.32 |
| 138400 WATT MV-1ST FIXTURE-FLOOD | 3 | 1,880 | 5,640 |  | \$277.56 | \$833 | \$72 | \$905 | \$301.68 |
| 139150 WATT HPS-IST FIXTURE-FLOOD | 12 | 733 | 8.796 |  | \$233.52 | \$2,802 | \$113 | \$2,915 | \$242.92 |
| 140250 WATT HPS-1ST FIXTURE-FLOOD | 63 | 1,194 | 75,222 |  | \$271.20 | \$17,086 | \$965 | \$18,051 | \$286.52 |
| 141400 WATT HPS-1ST FIXTURE-FLOOD | 237 | 1,848 | 437,976 |  | \$402.96 | \$95,502 | \$5,619 | \$101,121 | \$426.67 |
| 142400 WAT METAL HALIDE-IST FII-FLOOD | 89 | 1,774 | 157,886 |  | \$334.56 | \$29,776 | \$2,026 | \$31,802 | \$357.32 |
| 1431000 WATT MV - ADDITIONAL FIXTURE | 0 | 4,315 | 0 |  | \$0.00 | \$0 | \$0 | \$0 | \$55.36 |
| 144400 WATT MV-ADDIT'L FIXTURE | 1 | 1,880 | 1,880 |  | \$187.92 | \$188 | \$24 | \$212 | \$212.04 |
| 145175 WATT MV-ADDIT'L FIXTURE | 2 | 832 | 1,664 |  | \$99.60 | \$199 | \$21 | \$221 | \$110.27 |
| 146400 WATT HPS-ADDIT'L FIXTURE | 49 | 1,848 | 90,552 |  | \$286.32 | \$14,030 | \$1,162 | \$15,191 | \$310.03 |
| 147250 WATT HPS-ADDIT'L FIXTURE | 16 | 1,194 | 19,104 |  | \$247.20 | \$3,955 | \$245 | \$4,200 | \$262.52 |
| 148150 WATT HPS-ADDIT'L FIXTURE | 14 | 733 | 10,262 |  | \$186.24 | \$2,607 | \$132 | \$2,739 | \$195.64 |
| 149100 WATT HPS-ADDIT'L FIXTURE | 3 | 485 | 1,455 |  | \$88.08 | \$264 | \$19 | \$283 | \$94.30 |
| 152400 WATT HPS-ADDIT'L FIXTURE-SHOEBOX | 16 | 1,848 | 29,568 |  | \$121.32 | \$1,941 | \$379 | \$2,320 | \$145.03 |
| 153250 WATT HPS-ADDIT'L FIXTURE-SHOEBOX | 9 | 1,194 | 10,746 |  | \$94.44 | \$850 | \$138 | \$988 | \$109.76 |
| 154400 WATT METAL HALIDE-ADDT' FIX-SHOEBOX | 110 | 1,774 | 195,140 |  | \$120.84 | \$13,292 | \$2,504 | \$15,796 | \$143.60 |
| 155400 WATM MV-ADDIT'L FIXTURE-FLOOD | 2 | 1,880 | 3.760 |  | \$187.92 | \$376 | \$48 | \$424 | \$212.04 |
| 156150 WATT HPS-ADDIT'L FIXTURE-FLOOD | 9 | 733 | 6.597 |  | \$186.24 | \$1,676 | \$85 | \$1,761 | \$195.64 |
| 157250 WATT HPS-ADDIT'L FIXTURE-FLOOD | 55 | 1,194 | 65,670 |  | \$247.20 | \$13,596 | \$843 | \$14,439 | \$262.52 |
| 158400 WATT HPS-ADDIT'L FIXTURE-FLOOD | 259 | 1,848 | 478,632 |  | \$286.32 | \$74,157 | \$6,141 | \$80,298 | \$310.03 |
| 159400 WATT M ETAL HALIDE-ADDT'L FIX-FLOOD | 185 | 1,774 | 328,190 |  | \$120.84 | \$22,355 | \$4,211 | \$26,566 | \$143.60 |
| 160175 W MV POST TOP WASH | 40 | 832 | 33,280 |  | \$340.68 | \$13,627 | \$427 | \$14,054 | \$351.35 |
| 161175 W MV POST TOP | 29 | 832 | 24,128 |  | \$218.88 | \$6,348 | \$310 | \$6,657 | \$229.55 |
| 162100 W HPS POST TOP WASH | 57 | 485 | 27,645 |  | \$332.28 | \$18,940 | \$355 | \$19,295 | \$338.50 |
| 163100 W HPS POST TOP | 407 | 485 | 197,395 |  | \$213.60 | \$86,935 | \$2,533 | \$89,468 | \$219.82 |
| 164150 W HPS POST TOP WASH | 114 | 733 | 83,562 |  | \$381.60 | \$43,502 | \$1,072 | \$44,575 | \$391.00 |
| 165150 W HPS POST TOP BALL | 60 | 733 | 43,980 |  | \$262.92 | \$15,775 | \$564 | \$16,339 | \$272.32 |
| 180250 WATT MET HAL 18 Ft DIR EMBEDDED | 3 | 1,159 | 3,477 |  | \$626.28 | \$1,879 | \$45 | \$1,923 | \$641.15 |
| 181250 WAT MET HAL 12 FT ANCHOR BASED | 11 | 1,159 | 12,749 |  | \$687.00 | \$7,557 | \$164 | \$7,721 | \$701.87 |
| 182 2-250 WATT MET HAL 18 FT DIR EMBEDDED | 7 | 2,317 | 16,219 |  | \$866.04 | \$6,062 | \$208 | \$6,270 | \$895.77 |
| 183 2-250 WATT MET HAL 12 FT ANCHOR BASED | 0 | 2,317 | 0 |  | \$926.52 | \$0 | \$0 | \$0 | \$956.25 |
| 188250 WAT MET HAL 18 FT DIR EMBED PRI METER | 0 | 1,159 | 0 |  | \$569.28 | \$0 | \$0 | \$0 | \$584.15 |
| 189250 WATT MET HAL 12 FT ANCHOR BASE PRI METER | 0 | 1,159 | 0 |  | \$629.88 | \$0 | \$0 | \$0 | \$644.75 |
| 190 2-250 WATT MET HAL 18 FT DIR EMBED PRI METER | 0 | 2,317 | 0 |  | \$758.88 | \$0 | \$0 | \$0 | \$788.61 |
| 191 2-250 WATT MET HAL 12 FT ANCHOR BASE PRI METER | 0 | 2,317 | 0 |  | \$819.72 | \$0 | \$0 | \$0 | \$849.45 |
| 271100 WATt LIGHT | 2,028 | 485 | 983,580 |  | \$180.00 | \$365,040 | \$12,620 | \$377,660 | \$186.22 |
| 272150 WATT HPS REDDY SENT. | 162 | 733 | 118,746 |  | \$204.12 | \$33,067 | \$1,524 | \$34,591 | \$213.52 |
| 273250 WAT HPS REDDY SENT. | 327 | 1,194 | 390,438 |  | \$243.48 | \$79,618 | \$5,009 | \$84,627 | \$258.80 |
| 274400 WAT HPS REDDY SENT. | 221 | 1,848 | 408,408 |  | \$294.48 | \$65,080 | \$5,240 | \$70,320 | \$318.19 |
| 287150 WATT HPS FLOOD - OVERHEAD | 71 | 733 | 52,043 |  | \$210.12 | \$14,919 | \$668 | \$15,586 | \$219.52 |
| 288250 WATt HPS FLOOD - OVERHEAD | 123 | 1,194 | 146,862 |  | \$248.28 | \$30,538 | \$1,884 | \$32,423 | \$263.60 |
| 289400 WAT HPS FLOOD - OVERHEAD | 1,625 | 1,848 | 3,003,000 |  | \$298.20 | \$484,575 | \$38,529 | \$523,104 | \$321.91 |
| 296 - WOOD POLE WITH OVERHEAD FEED - | 1,449 | 0 | 0 |  | \$83.16 | \$120,499 | \$0 | \$120,499 | \$83.16 |
| 297 - WOOD POLE WITH UNDERGROUND FEED - | 92 | 0 | 0 |  | \$105.24 | \$9,682 | \$0 | \$9,682 | \$105.24 |
| 300 LED COBRA HEAD 5000-6000 LUMENS | 745 | 185 | 137,825 |  | \$198.24 | \$147,689 | \$1,768 | \$149,457 | \$200.61 |
| 301 LED COBRA HEAD 6500-7500 LUMENS | 85 | 229 | 19,465 |  | \$203.40 | \$17,289 | \$250 | \$17,539 | \$206.34 |
| 302 LED COBRA HEAD 12500-13500 LUMENS | 81 | 437 | 35,397 |  | \$248.88 | \$20,159 | \$454 | \$20,613 | \$254.49 |
| 303 LED COBRA HEAD 20000-21500 LUMENS | 208 | 686 | 142,688 |  | \$288.48 | \$60,004 | \$1,831 | \$61,835 | \$297.28 |


| Code Description | Inventory (Light Count) | kWh per Light | Total kWh | Separately Metered | Current Annual Base Rate | Current Base Revenue | ProForma Adjustments | Current Revenue Proforma @ Present Rates | Current Rate with ECCR, RTO, DSM CAP, TDSIC, and Fuel (Base Fuel and FCA) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 304 LED AREA LIGHT 11500-16500 LUMENS | 0 | 536 | 0 |  | \$271.92 | \$0 | \$0 | \$0 | \$278.80 |
| 305 LED AREA LIGHT 21000-26000 LUMENS | 55 | 867 | 47,685 |  | \$302.04 | \$16,612 | \$612 | \$17,224 | \$313.16 |
| 306 LED TRAD. POST TOP 6000-7500 LUMENS | 5 | 260 | 1,300 |  | \$249.00 | \$1,245 | \$17 | \$1,262 | \$252.34 |
| 307 LED TWIN WASH POST TOP 2 @ 6000-7500-LT | 0 | 552 |  |  | \$616.92 | \$0 | \$0 | \$0 | \$624.00 |
| 308 LED WASH POST TOP 6000-7500 LUMENS | 0 | 276 | 0 |  | \$336.84 | \$0 | \$0 | \$0 | \$340.38 |
| 313 LED FLOOD 11,500-16,500 LUMENS | 48 | 378 | 18,144 |  | \$267.24 | \$12,828 | \$233 | \$13,060 | \$272.09 |
| 314 LED FLOOD 21,000-26,000 LUMENS | 1,216 | 690 | 839,040 |  | \$295.08 | \$358,817 | \$10,765 | \$369,582 | \$303.93 |
| 328 12' FG TRAD COL PAIRED W/LT | 2 | 0 | 0 |  | \$77.04 | \$154 | \$0 | \$154 | \$77.04 |
| 329400 WAT HPS-IST FIXTURE | 17 | 1,848 | 31,416 |  | \$417.12 | \$7,091 | \$403 | \$7,494 | \$440.83 |
| 330250 WATT HPS-IST FIXTURE | 25 | 1,194 | 29,850 |  | \$366.24 | \$9,156 | \$383 | \$9,539 | \$381.56 |
| 331150 WATT HPS-IST FIXTURE | 15 | 733 | 10,995 |  | \$332.04 | \$4,981 | \$141 | \$5,122 | \$341.44 |
| 332100 WATT HPS-IST FIXTURE | 0 | 485 | 0 |  | \$304.20 | \$0 | \$0 | \$0 | \$310.42 |
| 333400 WAT HPS - IST FIXTURE PAINTED BRONZ | 0 | 1,848 | 0 |  | \$510.24 | \$0 | \$0 | \$0 | \$533.95 |
| 334250 WATT HPS - IST FIXTURE PAINTED BRONZ | , | 1,194 | 0 |  | \$467.88 | \$0 | \$0 | \$0 | \$483.20 |
| 335400 WATT HPS-1 IT FIXTURE-SHOEBOX | 13 | 1,848 | 24,024 |  | \$414.24 | \$5,385 | \$308 | \$5,693 | \$437.95 |
| 336250 WAT HPS-1 IT FIXTURE-SHOEBOX | 10 | 1,194 | 11,940 |  | \$362.52 | \$3,625 | \$153 | \$3,778 | \$377.84 |
| $33712{ }^{\prime}$ FG FLUTED COL CUST BASE PAIRED W/LT | 0 | 0 | 0 |  | \$156.12 | \$0 | \$0 | \$0 | \$156.12 |
| 339150 WAT HPS-IST FIXTURE-FLOOD | 4 | 733 | 2,932 |  | \$431.04 | \$1.724 | \$38 | \$1,762 | \$440.44 |
| 340250 WATT HPS-1ST FIXTURE-FLOOD | 2 | 1,194 | 2,388 |  | \$458.04 | \$916 | \$31 | \$947 | \$473.36 |
| 341400 WATT HPS-1ST FIXTURE-FLOOD | 79 | 1,848 | 145,992 |  | \$491.28 | \$38,811 | \$1,873 | \$40,684 | \$514.99 |
| 342 14' AL FLUTED COL CUST BASE PAIRED W/LT | 0 | 0 | 0 |  | \$15.04 | \$0 | \$0 | \$0 | \$15.04 |
| 34314 FG FLUTED COL DIRECT BURY PAIRED W/LT | 0 | 0 | 0 |  | \$158.52 | \$0 | \$0 | \$0 | \$158.52 |
| 34414 FG SMOOTH COL DIRECT BURY PAIRED W/LT | 0 | 0 | 0 |  | \$136.44 | \$0 | \$0 | \$0 | \$136.44 |
| 346400 WATT HPS-ADDITL FIXTURE | 35 | 1.848 | 64,680 |  | \$302.76 | \$10,597 | \$830 | \$11,426 | \$326.47 |
| 347250 WATT HPS-ADDIT'L FIXTURE | 9 | 1,194 | 10,746 |  | \$251.76 | \$2,266 | \$138 | \$2,404 | \$267.08 |
| 348150 WATT HPS-ADDIT'L FIXTURE | 1 | 733 | 733 |  | \$217.68 | \$218 | \$9 | \$227 | \$227.08 |
| 349100 WATT HPS-ADDIT'L FIXTURE | 0 | 485 | 0 |  | \$193.44 | \$0 | \$0 | \$0 | \$199.66 |
| 350400 WATT HPS -ADDITIONAL FIXTURE-PAINTED | 0 | 1,848 | 0 |  | \$294.12 | \$0 | \$0 | \$0 | \$317.83 |
| 351250 WATT HPS -ADDITIONAL FIXTURE-PAINTED | 0 | 1,194 | 0 |  | \$251.76 | \$0 | \$0 | \$0 | \$267.08 |
| 352400 WATT HPS-ADDIT'L FIXTURE-SHOEBOX | 0 | 1,848 | 0 |  | \$296.76 | \$0 | \$0 | \$0 | \$320.47 |
| 353250 WAT HPS-ADDIT'L FIXTURE-SHOEBOX | - | 1,194 | 0 |  | \$245.04 | \$0 | \$0 | \$0 | \$260.36 |
| 354 AL COL W/BASE PAIRED W/LT | 40 | 0 | 0 |  | \$192.96 | \$7,718 | \$0 | \$7,718 | \$192.96 |
| 355 AL COL ON CUST OWNED BASE PAIRED W/LT | 8 | 0 | 0 |  | \$107.52 | \$860 | \$0 | \$860 | \$107.52 |
| 356150 WATT HPS-ADDIT'L FIXTURE-FLOOD | 0 | 733 | 0 |  | \$224.16 | \$0 | \$0 | \$0 | \$233.56 |
| 357250 WATT HPS-ADDIT'L FIXTURE-FLOOD | 2 | 1,194 | 2,388 |  | \$262.32 | \$525 | \$31 | \$555 | \$277.64 |
| 358400 WATT HPS-ADDIT'L FIXTURE-FLOOD | 140 | 1,848 | 258,720 |  | \$312.36 | \$43,730 | \$3,319 | \$47,050 | \$336.07 |
| 362100 W HPS POST TOP WASH | 20 | 485 | 9.700 |  | \$344.52 | \$6,890 | \$124 | \$7,015 | \$350.74 |
| 363100 W HPS POST TOP | 5 | 485 | 2,425 |  | \$256.08 | \$1,280 | \$31 | \$1,312 | \$262.30 |
| 364150 W HPS POST TOP WASH | 28 | 733 | 20,524 |  | \$363.00 | \$10,164 | \$263 | \$10,427 | \$372.40 |
| 365150 W HPS POST TOP BALL |  | 733 | 0 |  | \$324.60 | \$0 | \$0 | \$0 | \$334.00 |
| 369 AL COL BZ W/BASE PAIRED W/LT | 0 | 0 | 0 |  | \$210.48 | \$0 | \$0 | \$0 | \$210.48 |
| 370 AL COL BZ ON CUST BASE PAIRED W/LT | 29 | 0 | 0 |  | \$125.04 | \$3,626 | \$0 | \$3,626 | \$125.04 |
| 378 FG COL DIRECT BURY PAIRED W/LT | 74 | 0 | 0 |  | \$115.32 | \$8,534 | \$0 | \$8,534 | \$115.32 |
| 380250 WATT MET HAL 18 FT DIR EMBEDDED | 88 | 1,159 | 101,992 |  | \$430.44 | \$37,879 | \$1,309 | \$39,187 | \$445.31 |
| 381250 WATT MET HAL 12 FT ANCHOR BASED | 140 | 1,159 | 162,260 |  | \$427.92 | \$59,909 | \$2,082 | \$61,991 | \$442.79 |
| 382 2-250 WATT MET HAL 18 FT DIR EMBEDDED | 80 | 2.317 | 185,360 |  | \$628.32 | \$50,266 | \$2,378 | \$52,644 | \$658.05 |
| 383 2-250 WATT MET HAL 12 FT ANCHOR BASED | 13 | 2.317 | 30,121 |  | \$625.80 | \$8,135 | \$386 | \$8,522 | \$655.53 |
| 388250 WATT MH 18 FT DIR EMBED PRI METER | 32 | 1,159 | 37,088 |  | \$342.12 | \$10,948 | \$476 | \$11,424 | \$356.99 |
| 389250 WATT MH 12 FT ANCHOR BASE PRI METER | 16 | 1,159 | 18,544 |  | \$339.60 | \$5,434 | \$238 | \$5,672 | \$354.47 |
| 390 2-250 WATT MH 18 FT DIR EMBED PRI METER | 17 | 2,317 | 39,389 |  | \$451.68 | \$7,679 | \$505 | \$8,184 | \$481.41 |
| 391 2-250 WATT MH 12 FT ANCHOR BASE PRI MTR | , | 2,317 | 20,853 |  | \$449.16 | \$4,042 | \$268 | \$4,310 | \$478.89 |
| Total APL | 49,558 |  | 43,666,570 |  |  | $\underline{\$ 8,327,913}$ | \$560,256 | \$8,888,169 |  |


| Code Description | Inventory (Light Count) | kWh per Light | Total kWh | Separately Metered | Current Annual Base Rate | Current Base Revenue | ProForma Adjustments | Current Revenue Proforma @ Present Rates | Current Rate with ECCR, RTO, DSM, CAP, TDSIC, and Fuel (Base Fuel and FCA) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MU Company Installed, Owned, and Maintained (MU-1) |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 11000 WAT MV - OVERHEAD | 1 | 4,315 | 4,315 |  | \$292.68 | \$293 | \$55.36 | \$348 | \$348.04 |
| 21000 WATT MV - TRAFFIC COLUMN | 0 | 4,315 | 0 |  | \$258.48 | \$0 | \$0.00 | \$0 | \$313.84 |
| 31000 WATT MV - METAL COLUMN | 3 | 4,315 | 12,945 |  | \$426.38 | \$1,279 | \$166.09 | \$1,445 | \$481.74 |
| 4400 WAT MV - OVERHEAD | 16 | 1,880 | 30,080 |  | \$159.82 | \$2,557 | \$385.94 | \$2,943 | \$183.94 |
| 5400 WATM MV - TRAFFIC COLUMN | 0 | 1,880 | 0 |  | \$143.64 | \$0 | \$0.00 | \$0 | \$167.76 |
| 6400 WATT MV - METAL COLUMN | 144 | 1,880 | 270,720 |  | \$222.35 | \$32,018 | \$3,473.43 | \$35,492 | \$246.47 |
| 7175 WAT MV - OVERHEAD | 446 | 832 | 371,072 |  | \$110.88 | \$49,452 | \$4,760.98 | \$54,213 | \$121.55 |
| 8175 WATM MV - TRAFFIC COLUMN | 0 | 832 | 0 |  | \$102.12 | \$0 | \$0.00 | \$0 | \$112.79 |
| 9175 WATT MV - METAL COLUMN | 670 | 832 | 557,440 |  | \$179.44 | \$120,225 | \$7,152.14 | \$127,377 | \$190.11 |
| 10175 W MV - POST TOP | 476 | 832 | 396,032 |  | \$174.71 | \$83,162 | \$5,081.22 | \$88,243 | \$185.38 |
| 11175 W MV - POST TOP WASH | 189 | 832 | 157,248 |  | \$271.52 | \$51,317 | \$2,017.54 | \$53,335 | \$282.19 |
| 12400 WAT HPS - OVERHEAD | 240 | 1,848 | 443,520 |  | \$188.19 | \$45,166 | \$5,690.51 | \$50,856 | \$211.90 |
| 13400 WATHPS - TRAFFIC COLUMN | 65 | 1,848 | 120,120 |  | \$188.19 | \$12,232 | \$1.541.18 | \$13,774 | \$211.90 |
| 14400 WATT HPS - Metal Column | 552 | 1,848 | 1,020,096 |  | \$321.88 | \$177,678 | \$13,088.17 | \$190,766 | \$345.59 |
| 15250 WAT HPS - OVERHEAD | 505 | 1,194 | 602,970 |  | \$152.84 | \$77,184 | \$7,736.30 | \$84,921 | \$168.16 |
| 16250 WAT HPS - TRAFFIC COLUMN | 36 | 1,194 | 42,984 |  | \$152.84 | \$5,502 | \$551.50 | \$6,054 | \$168.16 |
| 17250 WAT HPS - METAL COLUMN | 619 | 1,194 | 739,086 |  | \$216.56 | \$134,051 | \$9,482.72 | \$143,533 | \$231.88 |
| 18150 WATT HPS - OVERHEAD | 491 | 733 | 359,903 |  | \$120.34 | \$59,087 | \$4,617.67 | \$63,705 | \$129.74 |
| 19150 WATt HPS - TRAFFIC COLUMN | 7 | 733 | 5,131 |  | \$120.34 | \$842 | \$65.83 | \$908 | \$129.74 |
| 20150 WAT HPS - METAL COLUMN | 472 | 733 | 345,976 |  | \$186.18 | \$87,877 | \$4,438.99 | \$92,316 | \$195.58 |
| 21100 WAT HPS - OVERHEAD | 796 | 485 | 386,060 |  | \$102.37 | \$81,487 | \$4,953.28 | \$86,440 | \$108.59 |
| 22100 WATt HPS - TRAFFIC COLUMN | 1 | 485 | 485 |  | \$102.37 | \$102 | \$6.22 | \$109 | \$108.59 |
| 23100 WATt hPS - metal Column | 517 | 485 | 250,745 |  | \$170.93 | \$88,371 | \$3,217.14 | \$91,588 | \$177.15 |
| 24100 W HPS - POST TOP | 5.857 | 485 | 2,840,645 |  | \$170.10 | \$996,276 | \$36,446.41 | \$1,032,722 | \$176.32 |
| 25100 W HPS - POST TOP WASH | 1,703 | 485 | 825,955 |  | \$264.20 | \$449,933 | \$10,597.27 | \$460,530 | \$270.42 |
| 26150 W HPS- POST TOP BALL | 21 | 733 | 15,393 |  | \$205.56 | \$4,317 | \$197.50 | \$4,514 | \$214.96 |
| 27150 W HPS - POST TOP WASH | 3,037 | 733 | 2,226,121 |  | \$303.68 | \$922,276 | \$28,561.87 | \$950,838 | \$313.08 |
| 283 -150 WATT HPS-1 COLUMN CLUSTER W/BALAST | 0 | 0 | 0 |  | \$514.56 | \$0 | \$0.00 | \$0 | \$514.56 |
| 29 3-150 WATT HPS-2 COLUMN CLUSTER N/BALAST | 0 | 0 | 0 |  | \$514.56 | \$0 | \$0.00 | \$0 | \$514.56 |
| 303 -150 WATT HPS-2 COLUMN CLUSTER W/BALAST | 0 | 0 | 0 |  | \$514.56 | \$0 | \$0.00 | \$0 | \$514.56 |
| $321-150$ \& 4-100 WATT HPS - CLUSTER | 1 | 2.672 | 2,672 |  | \$687.38 | \$687 | \$34.28 | \$722 | \$721.66 |
| 33400 WATT HPS-METAL COLUMN-PAINTED BRONZE | 74 | 1,848 | 136,752 |  | \$350.49 | \$25,936 | \$1,754.57 | \$27.691 | \$374.20 |
| 34400 WATt HPS-TRAFFIC COLUMN-PAINT BRONZE | 8 | 1,848 | 14,784 |  | \$192.92 | \$1,543 | \$189.68 | \$1,733 | \$216.63 |
| 35250 WATT HPS-METAL COLUMN-PAINTED BRONZE | 1 | 1,194 | 1,194 |  | \$245.16 | \$245 | \$15.32 | \$260 | \$260.48 |
| 37175 WATT MV - FIBERGLASS COLUMN | 6 | 832 | 4,992 |  | \$170.93 | \$1,026 | \$64.05 | \$1,090 | \$181.60 |
| 38100 WAT HPS - FIBERGLASS COLUMN | 103 | 485 | 49,955 |  | \$162.42 | \$16,729 | \$640.94 | \$17,370 | \$168.64 |
| 39150 WAT HPS - FIBERGLASS COLUMN | 155 | 733 | 113,615 |  | \$177.55 | \$27.520 | \$1,457.72 | \$28,978 | \$186.95 |
| 40250 WAT HPS - FIBERGLASS COLUMN | 124 | 1,194 | 148,056 |  | \$208.05 | \$25,798 | \$1,899.61 | \$27,698 | \$223.37 |
| 41400 WAT HPS - FIBERGLASS COLUMN | 159 | 1,848 | 293,832 |  | \$299.19 | \$47,571 | \$3,769.96 | \$51,341 | \$322.90 |
| 42400 WAT MH SHOEBOX - FIEERGLASS COLUMN | 103 | 1,774 | 182,722 |  | \$273.77 | \$28,198 | \$2,344.38 | \$30,543 | \$296.53 |
| 43 2-400 WAT MH SHOEBOX-FIBERGLASS COLUMN | 48 | 3,547 | 170,256 |  | \$377.56 | \$18,123 | \$2,184.44 | \$20,307 | \$423.07 |
| 44175 WATT MV UPASS $4100 H R S$ - WALL MOUNTED | 0 | 0 | 0 |  | \$143.64 | \$0 | \$0.00 | \$0 | \$143.64 |
| 45150 WATt HPS UPASS $4100 H R S$-WALL MOUNTED | 192 | 733 | 140,736 |  | \$157.45 | \$30,230 | \$1,805.69 | \$32,036 | \$166.85 |
| 46250 W HPS - SHOEBOX | 10 | 1,194 | 11,940 |  | \$217.98 | \$2,180 | \$153.19 | \$2,333 | \$233.30 |
| 48 2-250 W HPS-SHOEBOX | 0 | 2,388 | 0 |  | \$270.12 | \$0 | \$0.00 | \$0 | \$300.76 |
| 50400 WATT HPS UPASS 8760HRS WALL MOUNTED | 85 | 4,108 | 349,180 |  | \$341.74 | \$29,048 | \$4,480.09 | \$33,528 | \$394.45 |
| 51150 WAT HPS UPASS 8760HRS WALL MOUNTED | 101 | 1,629 | 164,529 |  | \$204.38 | \$20,642 | \$2,110.96 | \$22,753 | \$225.28 |
| 65400 W HPS - SHOEBOX | 43 | 1,848 | 79,464 |  | \$267.86 | \$11,518 | \$1,019.55 | \$12,538 | \$291.57 |
| 66 2-400 W HPS-SHOEBOX | 15 | 3,697 | 55,455 |  | \$366.09 | \$5,491 | \$711.51 | \$6,203 | \$413.52 |
| 101400 WATT METAL HALIDE - METAL COLUMN | 0 | 1,774 | 0 |  | \$321.53 | \$0 | \$0.00 | \$0 | \$344.29 |
| 184 EXCESS MATERIAL FOR CIRCLE CENTRE MALL | 1 | 1,774 | 1,774 |  | \$5,750.49 | \$5,750 | \$22.76 | \$5,773 | \$5,773.25 |
| 185 PEDESTRIAN LIGHT FOR CIRCLE CENTRE MALL | 47 | 1,880 | 88,360 |  | \$722.61 | \$33,963 | \$1,133.69 | \$35,096 | \$746.73 |
| 187 TWIN 80W LED POST TOP | 53 | 640 | 33,920 |  | \$718.71 | \$38,092 | \$435.20 | \$38,527 | \$726.92 |
| 200 LED COBRA HEAD 5000-6000 LUMENS | 30 | 185 | 5,550 |  | \$211.59 | \$6,348 | \$71.21 | \$6,419 | \$213.96 |
| 201 LED COBRA HEAD 6500-7500 LUMENS | 84 | 229 | 19,236 |  | \$216.79 | \$18,210 | \$246.80 | \$18,457 | \$219.73 |
| 202 LED COBRA HEAD 12500-13500 LUMENS | 136 | 437 | 59,432 |  | \$261.83 | \$35,609 | \$762.53 | \$36,371 | \$267.44 |
| 203 LED COBRA HEAD 20000-21500 LUMENS | 44 | 686 | 30,184 |  | \$301.08 | \$13,248 | \$387.27 | \$13,635 | \$309.88 |


| Code Description | Inventory (Light Count) | kWh per Light | Total kWh | Separately Metered | Current Annual Base Rate | Current Base Revenue | ProForma Adjustments | Current Revenue Proforma@ Present Rates | Current Rate with ECCR, RTO, DSM, CAP, TDSIC, and Fuel (Base Fuel and FCA) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 204 LED AREA LIGHT 11500-16500 LUMENS | 0 | 536 | 0 |  | \$281.81 | \$0 | \$0.00 | \$0 | \$288.69 |
| 205 LED AREA LIGHT 21000-26000 LUMENS | 31 | 867 | 26,877 |  | \$311.48 | \$9,656 | \$344.84 | \$10,001 | \$322.60 |
| 206 LED TRAD. POST TOP 6000-7500 LUMENS | 336 | 260 | 87,360 |  | \$259.23 | \$87,101 | \$1,120.86 | \$88,222 | \$262.57 |
| 207 LED TWIN WASH POST TOP 2 @ 6000-7500-LT | 35 | 552 | 19,320 |  | \$626.86 | \$21,940 | \$247.88 | \$22,188 | \$633.94 |
| 208 LED WASH POST TOP 6000-7500 LUMENS | 128 | 276 | 35,328 |  | \$347.06 | \$44,424 | \$453.27 | \$44,877 | \$350.60 |
| 212400 WAT HPS - OVERHEAD | 4 | 1,848 | 7,392 |  | \$393.04 | \$1,572 | \$94.84 | \$1,667 | \$416.75 |
| 213400 WATT HPS - TRAFFIC COLUMN | 0 | 1,848 | 0 |  | \$355.10 | \$0 | \$0.00 | \$0 | \$378.81 |
| 214400 WATT HPS - METAL COLUMN | 32 | 1,848 | 59,136 |  | \$509.72 | \$16,311 | \$758.73 | \$17,070 | \$533.43 |
| 215250 WAT HPS - OVERHEAD | 25 | 1,194 | 29,850 |  | \$342.92 | \$8,573 | \$382.99 | \$8,956 | \$358.24 |
| 216250 WAT HPS - TRAFFIC COLUMN | 0 | 1,194 | 0 |  | \$304.86 | \$0 | \$0.00 | \$0 | \$320.18 |
| 217250 WATT HPS - METAL COLUMN | 42 | 1,194 | 50,148 |  | \$459.59 | \$19,303 | \$643.42 | \$19,946 | \$474.91 |
| 218150 WATT HPS - OVERHEAD | 12 | 733 | 8.796 |  | \$309.35 | \$3,712 | \$112.86 | \$3,825 | \$318.75 |
| 219150 WATt HPS - TRAFFIC COLUMN | 0 | 733 | , |  | \$271.41 | \$0 | \$0.00 | \$0 | \$280.81 |
| 220150 WAT HPS - METAL COLUMN | 1 | 733 | 733 |  | \$426.02 | \$426 | \$9.40 | \$435 | \$435.42 |
| 221100 WAT HPS - OVERHEAD | 27 | 485 | 13,095 |  | \$285.36 | \$7,705 | \$168.01 | \$7,873 | \$291.58 |
| 222100 WAT HPS - TRAFFIC COLUMN | 0 | 485 | 0 |  | \$247.29 | \$0 | \$0.00 | \$0 | \$253.51 |
| 223100 WATT HPS - METAL COLUMN | 31 | 485 | 15,035 |  | \$401.91 | \$12,459 | \$192.90 | \$12,652 | \$408.13 |
| 224100 W HPS - POST TOP | 211 | 485 | 102,335 |  | \$273.65 | \$57,740 | \$1,312.99 | \$59,053 | \$279.87 |
| 225100 W HPS - POST TOP WASH | 117 | 485 | 56,745 |  | \$366.45 | \$42,875 | \$728.06 | \$43,603 | \$372.67 |
| 226150 W HPS- POST TOP BALL | 0 | 733 | 0 |  | \$344.34 | \$0 | \$0.00 | \$0 | \$353.74 |
| 227150 W HPS - POST TOP WASH | 247 | 733 | 181,051 |  | \$384.53 | \$94,979 | \$2,322.94 | \$77,302 | \$393.93 |
| 228 12' FG TRAD COL PAIRED W/LT | 336 | 0 | 0 |  | \$80.74 | \$27.129 | \$0.00 | \$27,129 | \$80.74 |
| 232 1-150 \& 4-100 WATT HPS - CLUSTER | 0 | 2,672 | 0 |  | \$851.22 | \$0 | \$0.00 | \$0 | \$885.50 |
| 233400 WATT HPS-METAL COLUMN-PAINTED BRONZE | 0 | 1,848 | 0 |  | \$533.24 | \$0 | \$0.00 | \$0 | \$556.95 |
| 234400 WATT HPS-TRAFFIC COLUMN-PAINT BRONZE | 0 | 1,848 | 0 |  | \$298.00 | \$0 | \$0.00 | \$0 | \$321.71 |
| 235250 WATT HPS-METAL COLUMN-PAINTED BRONZE | 0 | 1,194 | 0 |  | \$492.10 | \$0 | \$0.00 | \$0 | \$507.42 |
| 236250 WATT HPS-TRAFFIC COLUMN-PAINT BRONZE | 0 | 1,194 | 0 |  | \$247.77 | \$0 | \$0.00 | \$0 | \$263.09 |
| $23712{ }^{\prime}$ FG FLUTED COL CUST BASE PAIRED W/LT | 0 | 0 | 0 |  | \$163.60 | \$0 | \$0.00 | \$0 | \$163.60 |
| 238100 WATT HPS - FIBERGLASS COLUMN | 2 | 485 | 970 |  | \$324.01 | \$648 | \$12.45 | \$660 | \$330.23 |
| 239150 WAT HPS - FIBERGLASS COLUMN | 13 | 733 | 9,529 |  | \$352.02 | \$4,576 | \$122.26 | \$4,699 | \$361.42 |
| 240250 WATT HPS - FIBERGLASS COLUMN | 0 | 1,194 | 0 |  | \$385.60 | \$0 | \$0.00 | \$0 | \$400.92 |
| 241400 WATT HPS - FIBERGLASS COLUMN | 1 | 1,848 | 1,848 |  | \$435.72 | \$436 | \$23.71 | \$459 | \$459.43 |
| 242 14' AL FLUTED COL CUST BASE PAIRED W/LT | 52 | 0 | 0 |  | \$189.25 | \$9,841 | \$0.00 | \$9,841 | \$189.25 |
| 24314 FG FLUTED COL DIRECT BURY PAIRED W/LT | 14 | 0 | 0 |  | \$166.20 | \$2,327 | \$0.00 | \$2,327 | \$166.20 |
| 24414 FG SMOOTH COL DIRECT BURY PAIRED W/LT | 88 | 0 | 0 |  | \$142.91 | \$12,576 | \$0.00 | \$12,576 | \$142.91 |
| 245150 WAT HPS UPASS 4100HRS -WALL MOUNTED | 0 | 733 | 0 |  | \$253.32 | \$0 | \$0.00 | \$0 | \$262.72 |
| 246250 W HPS - SHOEBOX | 0 | 1,194 | 0 |  | \$381.81 | \$0 | \$0.00 | \$0 | \$397.13 |
| 248 2-250 W HPS-SHOEBOX | 0 | 2,388 | 0 |  | \$426.02 | \$0 | \$0.00 | \$0 | \$456.66 |
| 250400 WATT HPS UPASS 8760HRS WALL MOUNTED | 0 | 4,108 | 0 |  | \$448.84 | \$0 | \$0.00 | \$0 | \$501.55 |
| 251150 WATT HPS UPASS 8760HRS WALL MOUNTED | 0 | 1,629 | 0 |  | \$284.88 | \$0 | \$0.00 | \$0 | \$305.78 |
| 254 AL COL W/BASE PAIRED W/LT | 122 | 0 | 0 |  | \$202.25 | \$24,675 | \$0.00 | \$24,675 | \$202.25 |
| 255 AL COL ON CUST OWNED BASE PAIRED W/LT | 1 | 0 | 0 |  | \$112.65 | \$113 | \$0.00 | \$113 | \$112.65 |
| 265400 W HPS - SHOEBOX | , | 1,848 | 1,848 |  | \$432.64 | \$433 | \$23.71 | \$456 | \$456.35 |
| 266 2-400 W HPS-SHOEBOX | 0 | 3,697 |  |  | \$609.96 | \$0 | \$0.00 | \$0 | \$657.39 |
| 269 AL COL BZ W/BASE PAIRED W/LT | 0 | 0 | 0 |  | \$220.58 | \$0 | \$0.00 | \$0 | \$220.58 |
| 270 AL COL BZ ON CUST BASE PAIRED W/LT | 0 | 0 | 0 |  | \$131.09 | \$0 | \$0.00 | \$0 | \$131.09 |
| 278 FG COL DIRECT BURY PAIRED W/LT | 104 | 0 | 0 |  | \$120.93 | \$12,577 | \$0.00 | \$12,577 | \$120.93 |
| 385 PEDESTRIAN LIGHT FOR CIRCLE CENTRE MALL | 0 | 1,880 | - |  | \$401.79 | \$0 | \$0.00 | \$0 | \$425.91 |
| 38680 W LED POST TOP | 0 | 320 | 0 |  | \$622.44 | \$0 | \$0.00 | \$0 | \$626.55 |
| 396 WD POLE W/OH FEED-W/OR W/O LT | 923 | 0 | 0 |  | \$87.00 | \$80,301 | \$0.00 | \$80,301 | \$87.00 |
| 397 WD POLE W/UG FEED-PAIRED W/LT | 109 | 0 | 0 |  | \$110.17 | \$12,009 | \$0.00 | \$12,009 | \$110.17 |


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|  |  |  |  |  |  |  |  |  |  |

Lighting Revenue Proof

| Code Description | Inventory <br> (Light <br> Count) | kWh per Light | Total kWh | Separately Metered | Current Annual Base Rate | Current Base Revenue | ProForma Adjustments | Current Revenue Proforma @ Present Rates | Current Rate with ECCR, RTO, DSM, CAP, TDSIC, and Fuel (Base Fuel and FCA) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Customer Installed, Owned, and Maintained (MU-1) |  |  |  |  |  |  |  |  |  |
| 531000 WATT MV - CUSTOMER OWNED | 0 | 4,315 | 0 |  | \$202.68 | \$0 | \$0.00 | \$0 | \$258.04 |
| 54400 WATT MV - CUSTOMER OWNED | 0 | 1,880 | 0 |  | \$108.84 | \$0 | \$0.00 | \$0 | \$132.96 |
| 55250 WATT MV - CUSTOMER OWNED | 2 | 1,210 | 2,420 |  | \$139.60 | \$279 | \$31.05 | \$310 | \$155.12 |
| 56175 WATT MV - CUSTOMER OWNED | 26 | 832 | 21,632 |  | \$87.71 | \$2,280 | \$277.55 | \$2,558 | \$98.38 |
| 59400 WATT HPS - CUSTOMER OWNED | 477 | 1,848 | 881,496 |  | \$133.93 | \$63.885 | \$11,309.88 | \$75,194 | \$157.64 |
| 60250 WATT HPS - CUSTOMER OWNED | 270 | 1,194 | 322,380 |  | \$106.74 | \$28,820 | \$4,136.24 | \$32,956 | \$122.06 |
| 61150 WATT HPS - CUSTOMER OWNED | 253 | 733 | 185,449 |  | \$81.45 | \$20,607 | \$2,379.37 | \$22,986 | \$90.85 |
| 631000 WATT HPS - CUSTOMER OWNED | 276 | 4,355 | 1,201,980 |  | \$276.84 | \$76,408 | \$15,421.80 | \$91,830 | \$332.72 |
| 64175 WATT MV ORNIMENTAL - CUSTOMER OWNED | 2 | 832 | 1,664 |  | \$134.76 | \$270 | \$21.35 | \$291 | \$145.43 |
| 109400 WAT HPS-CUSTOMER OWNED WO/MAINT | 56 | 1,848 | 103,488 |  | \$115.14 | \$6,448 | \$1,327.79 | \$7,776 | \$138.85 |
| 111150 WAT HPS - CUSTOMER OWNED WO/MAINT | 0 | 733 | 0 |  | \$62.77 | \$0 | \$0.00 | \$0 | \$72.17 |
| 1121000 WATT HPS - CUSTOMER OWNED WO/MAINT | 0 | 4,355 | 0 |  | \$225.12 | \$0 | \$0.00 | \$0 | \$281.00 |
| Customer Installed, Owned, but Company Maintained ( MU -1) |  |  |  |  |  |  |  |  |  |
| 120400 WATT HPS - CUSTOMER OWNED W/MAINT | 13 | 1,848 | 24,024 |  | \$133.93 | \$1,741 | \$308.24 | \$2,049 | \$157.64 |
| Total MU-1 | 52,994 |  | 27,246,921 |  |  | \$7,868,260 | \$349,587 | \$8,217,847 |  |
| Customer Installed, Owned, and Maintained (MU-4) |  |  |  |  |  |  |  |  |  |
| Total MU-4 | 1,312 |  | $\underline{6,788,610}$ |  |  | \$478,739 | \$87,100 | \$565,840 | \$431.28 |
| Grand Total Lighting (APL and MU) | 103,864 |  | 77,702,101 |  |  | \$16,674,912 | \$996,944 | \$17,671,856 |  |
|  |  |  |  |  |  | Balanc | g Adjustment | 1.000 |  |
|  |  |  |  | Total Lighting Revenue (APL and MU) @ Pro Forma Current Rates |  |  |  | $\underline{\$ 17,671,479}$ |  |

[1] Streetlighting with CIAC - City of Indianapolis
[2] Streetlighting with CIAC - All Other

AES Indiana
Lighting Rate Design

| Code Description | Inventory (Light Count) | Proposed Annual Rate | Proposed Revenue |
| :---: | :---: | :---: | :---: |
| (A) (B) | (C) | (F) | (G) |
| APL |  |  |  |
| Company Installed, Owned, and Maintained (APL) |  |  |  |
| 68175 WATT LIGHT | 9,251 | \$125.04 | \$1,156,745 |
| 69400 WATT MV REDDY SENT. | 1,245 | \$240.48 | \$299,398 |
| 701000 WATT MV REDDY SENT. | 75 | \$438.96 | \$32,922 |
| 71100 WATT LIGHT | 6,316 | \$106.92 | \$675,307 |
| 72150 WATT HPS REDDY SENT. | 975 | \$221.88 | \$216,333 |
| 73250 WATT HPS REDDY SENT. | 1,027 | \$297.72 | \$305,758 |
| 74400 WATT HPS REDDY SENT. | 1,115 | \$351.48 | \$391,900 |
| 78175 WATT MV - SEC. METERED - OVERHEAD | 68 | \$81.72 | \$5,557 |
| 79400 WATT MV - SEC. METERED OVERHEAD | 16 | \$158.52 | \$2,536 |
| 801000 WATT MV - SEC. METERED - OVERHEAD | 1 | \$245.76 | \$246 |
| 81100 WATT HPS - SEC. METERED - OVERHEAD | 19 | \$84.72 | \$1,610 |
| 82150 WATT HPS - SEC. METERED - OVERHEAD | 1 | \$193.80 | \$194 |
| 83250 WATT HPS - SEC. METERED - OVERHEAD | 2 | \$244.92 | \$490 |
| 84400 WATT HPS - SEC. METERED - OVERHEAD | 12 | \$270.12 | \$3,241 |
| 85 ENERGY AND CONTROL ONLY | 1 | \$47.88 | \$48 |
| 86400 WATT MV FLOOD - OVERHEAD | 495 | \$240.72 | \$119,156 |
| 87150 WATT HPS FLOOD - OVERHEAD | 490 | \$222.36 | \$108,956 |
| 88250 WATT HPS FLOOD - OVERHEAD | 707 | \$297.84 | \$210,573 |
| 89400 WATT HPS FLOOD - OVERHEAD | 5,792 | \$351.54 | \$2,036,120 |
| 90400 WATT METAL HALIDE FLOOD - OVERHEAD | 1,044 | \$350.16 | \$365,567 |
| 91400 WATT MV FLOOD - SEC. METERED | 6 | \$158.52 | \$951 |
| 92150 WATT HPS FLOOD - SEC. METERED | 1 | \$193.80 | \$194 |
| 93250 WATT HPS FLOOD - SEC. METERED | 6 | \$244.92 | \$1,470 |
| 94400 WATT HPS FLOOD - SEC. METERED | 36 | \$270.12 | \$9,724 |
| 95400 WATT METAL HALIDE FLOOD-SEC. METERED | 2 | \$270.12 | \$540 |
| 96 - WOOD POLE WITH OVERHEAD FEED - | 7,555 | \$55.08 | \$416,129 |
| 97 - WOOD POLE WITH UNDERGROUND FEED - | 815 | \$136.20 | \$111,003 |
| 1261000 WATT MV - 1ST FIXTURE | 0 | \$62.76 | \$0 |
| 127400 WATT MV-1ST FIXTURE | 13 | \$342.12 | \$4,448 |
| 128175 WATT MV-1ST FIXTURE | 3 | \$267.12 | \$801 |
| 129400 WATT HPS-IST FIXTURE | 133 | \$483.84 | \$64,351 |
| 130250 WATT HPS-1ST FIXTURE | 202 | \$324.84 | \$65,618 |
| 131150 WATT HPS-1ST FIXTURE | 182 | \$275.40 | \$50,123 |
| 132100 WATT HPS-1ST FIXTURE | 32 | \$250.32 | \$8,010 |
| 135400 WATT HPS-1ST FIXTURE-SHOEBOX | 91 | \$406.68 | \$37,008 |
| 136250 WATT HPS-1ST FIXTURE-SHOEBOX | 103 | \$326.88 | \$33,669 |
| 137400 WATT METAL HALIDE-1ST FIX-SHOEBOX | 370 | \$405.12 | \$149,894 |
| 138400 WATT MV-IST FIXTURE-FLOOD | 3 | \$342.12 | \$1,026 |
| 139150 WATT HPS-1ST FIXTURE-FLOOD | 12 | \$275.40 | \$3,305 |
| 140250 WATT HPS-1ST FIXTURE-FLOOD | 63 | \$324.84 | \$20,465 |
| 141400 WATT HPS-1ST FIXTURE-FLOOD | 237 | \$483.84 | \$114,670 |
| 142400 WATT METAL HALIDE-1ST FIX-FLOOD | 89 | \$405.12 | \$36,056 |
| 1431000 WATT MV - ADDITIONAL FIXTURE | 0 | \$62.76 | \$0 |
| 144400 WATT MV-ADDIT'L FIXTURE | 1 | \$240.48 | \$240 |

## AES Indiana

## Lighting Rate Design

145175 WATT MV-ADDIT'L FIXTURE
146400 WATT HPS-ADDIT'L FIXTURE
147250 WATT HPS-ADDIT'L FIXTURE
48150 WATT HPS-ADDIT'L FIXTURE
49100 WATT HPS-ADDIT'L FIXTURE
152400 WATT HPS-ADDIT'L FIXTURE-SHOEBOX
153250 WATT HPS-ADDIT'L FIXTURE-SHOEBOX
154400 WATT METAL HALIDE-ADDT'L FIX-SHOEBOX
155400 WATT MV-ADDIT'L FIXTURE-FLOOD
156150 WATT HPS-ADDIT'L FIXTURE-FLOOD
157250 WATT HPS-ADDIT'L FIXTURE-FLOOD
158400 WATT HPS-ADDIT'L FIXTURE-FLOOD
159400 WATT METAL HALIDE-ADDT'L FIX-FLOOD
60175 W MV POST TOP WASH
61175 W MV POST TOP
162100 W HPS POST TOP WASH
63100 W HPS POST TOP
164150 W HPS POST TOP WASH
65150 W HPS POST TOP BALL
180250 WATT MET HAL 18 FT DIR EMBEDDED
181250 WATT MET HAL 12 FT ANCHOR BASED
182 2-250 WATT MET HAL 18 FT DIR EMBEDDED 183 2-250 WATT MET HAL 12 FT ANCHOR BASED 188250 WATT MET HAL 18 FT DIR EMBED PRI METER 89250 WATT MET HAL 12 FT ANCHOR BASE PRI METER 190 2-250 WATT MET HAL 18 FT DIR EMBED PRI METER 191 2-250 WATT MET HAL 12 FT ANCHOR BASE PRI METER 271100 WATT LIGHT
272150 WATT HPS REDDY SENT
273250 WATT HPS REDDY SENT.
274400 WATT HPS REDDY SENT
287150 WATT HPS FLOOD - OVERHEAD 288250 WATT HPS FLOOD - OVERHEAD 289400 WATT HPS FLOOD - OVERHEAD 296 - WOOD POLE WITH OVERHEAD FEED 297 - WOOD POLE WITH UNDERGROUND FEED 300 LED COBRA HEAD 5000-6000 LUMENS 301 LED COBRA HEAD 6500-7500 LUMEN 302 LED COBRA HEAD 12500-13500 LUMENS 303 LED COBRA HEAD 20000-21500 LUMENS 304 LED AREA LIGHT $11500-16500$ LUMENS 305 LED AREA LIGHT 21000-26000 LUMENS 306 LED TRAD. POST TOP 6000-7500 LUMENS 307 LED TWIN WASH POST TOP 2 @ $6000-7500$ 308 LED WASH POST TOP 6000-7500 LUMENS 313 LED FLOOD 11,500-16,500 LUMENS 314 LED FLOOD 21,000-26,000 LUMENS 328 12' FG TRAD COL PAIRED W/LT 329400 WATT HPS-1ST FIXTURE 330250 WATT HPS-1ST FIXTURE 331150 WATT HPS-1ST FIXTURE 332100 WATT HPS-1ST FIXTURE 333400 WATT HPS - IST FIXTURE PAINTED BRONZ 334250 WATT HPS - IST FIXTURE PAINTED BRONZ

|  |  |
| ---: | ---: |
| $\$ 125.04$ | $\$ 250$ |
| $\$ 351.48$ | $\$ 17,223$ |
| $\$ 297.72$ | $\$ 4,764$ |
| $\$ 221.88$ | $\$ 3,106$ |
| $\$ 106.92$ | $\$ 321$ |
| $\$ 164.40$ | $\$ 2,630$ |
| $\$ 124.44$ | $\$ 1,120$ |
| $\$ 162.84$ | $\$ 17,912$ |
| $\$ 240.48$ | $\$ 481$ |
| $\$ 221.88$ | $\$ 1,997$ |
| $\$ 297.72$ | $\$ 16,375$ |
| $\$ 351.48$ | $\$ 91,033$ |
| $\$ 162.84$ | $\$ 30,125$ |
| $\$ 398.40$ | $\$ 15,936$ |
| $\$ 260.28$ | $\$ 7,548$ |
| $\$ 383.76$ | $\$ 21,874$ |
| $\$ 249.24$ | $\$ 101,441$ |
| $\$ 443.40$ | $\$ 50,548$ |
| $\$ 308.76$ | $\$ 18,526$ |
| $\$ 726.96$ | $\$ 2,181$ |
| $\$ 795.84$ | $\$ 8,754$ |
| $\$ 1,015.68$ | $\$ 7,110$ |
| $\$ 1,084.20$ | $\$ 0$ |
| $\$ 662.40$ | $\$ 0$ |
| $\$ 731.04$ | $\$ 0$ |
| $\$ 894.12$ | $\$ 90$ |
| $\$ 963.12$ | $\$ 0$ |
| $\$ 211.20$ | $\$ 428,314$ |
| $\$ 242.16$ | $\$ 39,230$ |
| $\$ 293.40$ | $\$ 95,942$ |
| $\$ 360.84$ | $\$ 79,746$ |
| $\$ 248.88$ | $\$ 17,670$ |
| $\$ 298.92$ | $\$ 36,767$ |
| $\$ 365.04$ | $\$ 593,190$ |
| $\$ 94.32$ | $\$ 136,670$ |
| $\$ 119.28$ | $\$ 10,974$ |
| $\$ 227.52$ | $\$ 169,502$ |
| $\$ 234.00$ | $\$ 19,890$ |
| $\$ 288.60$ | $\$ 23,377$ |
| $\$ 337.08$ | $\$ 70,113$ |
| $\$ 316.08$ | $\$ 0$ |
| $\$ 355.08$ | $\$ 19,529$ |
| $\$ 286.08$ | $\$ 1,430$ |
| $\$ 707.52$ | $\$ 0$ |
| $\$ 385.92$ | $\$ 0$ |
| $\$ 308.52$ | $\$ 14,809$ |
| $\$ 344.64$ | $\$ 419,082$ |
| $\$ 87.36$ | $\$ 175$ |
| $\$ 499.80$ | $\$ 897$ |
| $\$ 432.60$ | $\$ 10,815$ |
| $\$ 387.12$ | $\$ 5,807$ |
| $\$ 351.96$ | $\$ 605.40$ |
| $\$ 547.92$ | $\$ 0$ |
|  |  |

## AES Indiana

Lighting Rate Design
335400 WATT HPS-1ST FIXTURE-SHOEBOX
336250 WATT HPS-1ST FIXTURE-SHOEBOX
337 12' FG FLUTED COL CUST BASE PAIRED W/LT
339150 WATT HPS-1ST FIXTURE-FLOOD
340250 WATT HPS-IST FIXTURE-FLOOD
341400 WATT HPS-1ST FIXTURE-FLOOD
342 14' AL FLUTED COL CUST BASE PAIRED W/LT
34314 FG FLUTED COL DIRECT BURY PAIRED W/LT 34414 FG SMOOTH COL DIRECT BURY PAIRED W/LT 346400 WATT HPS-ADDIT'L FIXTURE
347250 WATT HPS-ADDIT'L FIXTURE
348150 WATT HPS-ADDIT'L FIXTURE
349100 WATT HPS-ADDIT'L FIXTURE
350400 WATT HPS -ADDITIONAL FIXTURE-PAINTED
351250 WATT HPS -ADDITIONAL FIXTURE-PAINTED
352400 WATT HPS-ADDIT'L FIXTURE-SHOEBOX
353250 WATt HPS-ADDIT'L FIXTURE-SHOEBOX
354 AL COL W/BASE PAIRED W/LT
355 AL COL ON CUST OWNED BASE PAIRED W/LT 356150 WATT HPS-ADDIT'L FIXTURE-FLOOD 357250 WATT HPS-ADDIT'L FIXTURE-FLOOD 358400 WATT HPS-ADDIT'L FIXTURE-FLOOD 362100 W HPS POST TOP WASH 363100 W HPS POST TOP 364150 W HPS POST TOP WASH 365150 W HPS POST TOP BALL 369 AL COL BZ W/BASE PAIRED W/LT 370 AL COL BZ ON CUST BASE PAIRED W/LT 378 FG COL DIRECT BURY PAIRED W/LT 380250 WATT MET HAL 18 FT DIR EMBEDDED 381250 WATT MET HAL 12 FT ANCHOR BASED 382 2-250 WATT MET HAL 18 FT DIR EMBEDDED 383 2-250 WATT MET HAL 12 FT ANCHOR BASED 388250 WATT MH 18 FT DIR EMBED PRI METER 389250 WATT MH 12 FT ANCHOR BASE PRI METER 390 2-250 WATT MH 18 FT DIR EMBED PRI METER 391 2-250 WATT MH 12 FT ANCHOR BASE PRI MTR

| 13 | $\$ 496.56$ | $\$ 6,455$ |
| ---: | ---: | ---: |
| 10 | $\$ 428.40$ | $\$ 4,284$ |
| 0 | $\$ 177.00$ | $\$ 0$ |
| 4 | $\$ 499.44$ | $\$ 1,998$ |
| 2 | $\$ 536.76$ | $\$ 1,074$ |
| 79 | $\$ 583.92$ | $\$ 46,130$ |
| 0 | $\$ 17.04$ | $\$ 0$ |
| 0 | $\$ 179.76$ | $\$ 0$ |
| 0 | $\$ 154.68$ | $\$ 0$ |
| 35 | $\$ 370.20$ | $\$ 12,957$ |
| 9 | $\$ 302.88$ | $\$ 2,726$ |
| 1 | $\$ 257.52$ | $\$ 258$ |
| 0 | $\$ 226.44$ | $\$ 0$ |
| 0 | $\$ 360.36$ | $\$ 0$ |
| 0 | $\$ 302.88$ | $\$ 0$ |
| 0 | $\$ 363.36$ | $\$ 0$ |
| 0 | $\$ 295.20$ | $\$ 0$ |
| 40 | $\$ 218.76$ | $\$ 8,750$ |
| 8 | $\$ 121.92$ | $\$ 975$ |
| 0 | $\$ 264.84$ | $\$ 0$ |
| 2 | $\$ 314.76$ | $\$ 630$ |
| 140 | $\$ 381.00$ | $\$ 53,340$ |
| 20 | $\$ 397.68$ | $\$ 7,954$ |
| 5 | $\$ 297.36$ | $\$ 1,487$ |
| 28 | $\$ 422.28$ | $\$ 11,824$ |
| 0 | $\$ 378.72$ | $\$ 0$ |
| 0 | $\$ 238.68$ | $\$ 0$ |
| 29 | $\$ 141.72$ | $\$ 4,110$ |
| 74 | $\$ 130.80$ | $\$ 9,679$ |
| 88 | $\$ 504.96$ | $\$ 44,436$ |
| 140 | $\$ 502.08$ | $\$ 70,291$ |
| 80 | $\$ 746.16$ | $\$ 59,693$ |
| 13 | $\$ 743.28$ | $\$ 9,663$ |
| 32 | $\$ 404.76$ | $\$ 12,952$ |
| 16 | $\$ 401.88$ | $\$ 6,430$ |
| 17 | $\$ 545.88$ | $\$ 9,280$ |
| 9 | $\$ 543.00$ | $\$ 4,887$ |

Total APL $\qquad$

## Company Installed, Owned, and Maintained (MU-1)

1000 WATT MV - OVERHEAD
$\$ 370.20 \quad \$ 370$

21000 WATT MV - TRAFFIC COLUMN
\$370
1000 WATI MV - METAL COLUMN
$\$ 33.84$
$\$ 512.52$
$\$ 195.72$
$\begin{array}{ll}\$ 178.44 & \$ 3,132\end{array}$
4400 WATT MV - OVERHEAD
$\$ 178.44$
5400 WATT MV - TRAFFIC COLUMN
$\$ 262.20 \quad \$ 37.757$
6400 WATT MV - METAL COLUMN
$\$ 129.36$
$\$ 120.00 \quad \$ 57,695$
$\$ 202.20 \quad \$ 135,474$
$\$ 197.16 \quad \$ 93,848$
8175 WATT MV - TRAFFIC COLUMN
\$300.24

## AES Indiana

## Lighting Rate Design

12400 WATT HPS - OVERHEAD
13400 WATT HPS - TRAFFIC COLUMN
14400 WATT HPS - METAL COLUMN
15250 WATT HPS - OVERHEAD
16250 WATT HPS - TRAFFIC COLUMN
17250 WATT HPS - METAL COLUMN
18150 WATT HPS - OVERHEAD
19150 WATT HPS - TRAFFIC COLUMN
20150 WATT HPS - METAL COLUMN
21100 WATT HPS - OVERHEAD
22100 WATT HPS - TRAFFIC COLUMN
23100 WATT HPS - METAL COLUMN
24100 W HPS - POST TOP
25100 W HPS - POST TOP WASH
27150 W HPS - POST TOP WASH
28 3-150 WATT HPS-1 COLUMN CLUSTER W/BALAST
29 3-150 WATT HPS-2 COLUMN CLUSTER N/BALAST
30 3-150 WATT HPS-2 COLUMN CLUSTER W/BALAST
32 1-150 \& 4-100 WATT HPS - CLUSTER
33400 WATT HPS-METAL COLUMN-PAINTED BRONZE
34400 WATT HPS-TRAFFIC COLUMN-PAINT BRONZE
35250 WATT HPS-METAL COLUMN-PAINTED BRONZE
37175 WATT MV - FIBERGLASS COLUMN
38100 WATT HPS - FIBERGLASS COLUMN
39150 WATT HPS - FIBERGLASS COLUMN
40250 WATT HPS - FIBERGLASS COLUMN
41400 WATT HPS - FIBERGLASS COLUMN
42400 WATT MH SHOEBOX - FIBERGLASS COLUMN
43 2-400 WATT MH SHOEBOX-FIBERGLASS COLUMN
44175 WATT MV UPASS 4100 HRS - WALL MOUNTED
45150 WATT HPS UPASS $4100 H R S$-WALL MOUNTED
46250 W HPS - SHOEBOX
48 2-250 W HPS-SHOEBOX
50400 WATT HPS UPASS 8760 HRS WALL MOUNTED
51150 WATT HPS UPASS 8760HRS WALL MOUNTED
65400 W HPS - SHOEBOX
66 2-400 W HPS-SHOEBOX
101400 WATT METAL HALIDE - METAL COLUMN 184 EXCESS MATERIAL FOR CIRCLE CENTRE MALL 185 PEDESTRIAN LIGHT FOR CIRCLE CENTRE MALL 187 TWIN 80W LED POST TOP

| 240 | \$225.36 | \$54,086 |
| :---: | :---: | :---: |
| 65 | \$225.36 | \$14,648 |
| 552 | \$367.68 | \$202,959 |
| 505 | \$178.92 | \$90,355 |
| 36 | \$178.92 | \$6,441 |
| 619 | \$246.72 | \$152,720 |
| 491 | \$138.00 | \$67,758 |
| 7 | \$138.00 | \$966 |
| 472 | \$208.08 | \$98,214 |
| 796 | \$115.56 | \$91,986 |
| 1 | \$115.56 | \$116 |
| 517 | \$188.40 | \$97,403 |
| 5,857 | \$187.30 | \$1,097,016 |
| 1,703 | \$287.64 | \$489,851 |
| 21 | \$228.72 | \$4,803 |
| 3,037 | \$332.75 | \$1,010,562 |
| 0 | \$547.44 | \$0 |
| 0 | \$547.44 | \$0 |
| 0 | \$547.44 | \$0 |
| 1 | \$767.76 | \$768 |
| 74 | \$398.04 | \$29,455 |
| 8 | \$230.40 | \$1,843 |
| 1 | \$277.08 | \$277 |
| 6 | \$193.20 | \$1,159 |
| 103 | \$179.40 | \$18,478 |
| 155 | \$198.84 | \$30,820 |
| 124 | \$237.60 | \$29,462 |
| 159 | \$343.44 | \$54,607 |
| 103 | \$315.48 | \$32,494 |
| 48 | \$450.00 | \$21,600 |
| 0 | \$152.76 | \$0 |
| 192 | \$177.48 | \$34,076 |
| 10 | \$248.16 | \$2,482 |
| 0 | \$319.92 | \$0 |
| 85 | \$419.64 | \$35,669 |
| 101 | \$239.64 | \$24,204 |
| 43 | \$310.20 | \$13,339 |
| 15 | \$439.92 | \$6,599 |
| 0 | \$366.24 | \$0 |
| 1 | \$6,141.60 | \$6,142 |
| 47 | \$794.40 | \$37,337 |
| 53 | \$773.28 | \$40,984 |
| 1,226 | \$227.64 | \$279,087 |
| 462 | \$233.76 | \$107,997 |
| 460 | \$284.52 | \$130,879 |
| 171 | \$329.64 | \$56,368 |
| 0 | \$307.08 | \$0 |
| 31 | \$343.20 | \$10,639 |
| 336 | \$279.36 | \$93,865 |
| 35 | \$674.40 | \$23,604 |
| 138 | \$372.96 | \$51,468 |
| 4 | \$443.28 | \$1,773 |
| 0 | \$402.96 | \$0 |
| 32 | \$567.48 | \$18,159 |

## AES Indiana

## Lighting Rate Design

215250 WATT HPS - OVERHEAD
216250 WATT HPS - TRAFFIC COLUMN
217250 WATT HPS - METAL COLUMN
218150 WATT HPS - OVERHEAD
219150 WATT HPS - TRAFFIC COLUMN
220150 WATT HPS - METAL COLUMN
221100 WATT HPS - OVERHEAD
222100 WATT HPS - TRAFFIC COLUMN
223100 WATT HPS - METAL COLUMN
224100 W HPS - POST TOP
225100 W HPS - POST TOP WASH
226150 W HPS- POST TOP BALL
227150 W HPS - POST TOP WASH
228 12' FG TRAD COL PAIRED W/LT
232 1-150 \& 4-100 WATT HPS - CLUSTER
233400 WATT HPS-METAL COLUMN-PAINTED BRONZE
234400 WATT HPS-TRAFFIC COLUMN-PAINT BRONZE
235250 WATT HPS-METAL COLUMN-PAINTED BRONZE
236250 WATT HPS-TRAFFIC COLUMN-PAINT BRONZE
237 12' FG FLUTED COL CUST BASE PAIRED W/LT
238100 WATT HPS - FIBERGLASS COLUMN
239150 WATT HPS - FIBERGLASS COLUMN
240250 WATT HPS - FIBERGLASS COLUMN
241400 WATT HPS - FIBERGLASS COLUMN
242 14' AL FLUTED COL CUST BASE PAIRED W/L
24314 FG FLUTED COL DIRECT BURY PAIRED W/LT
24414 FG SMOOTH COL DIRECT BURY PAIRED W/LT
245150 WATT HPS UPASS 4100HRS -WALL MOUNTED
246250 W HPS - SHOEBOX
250400 WATT HPS UPASS 8760HRS WALL MOUNTED
250400 WATT HPS UPASS 8760 HRS WALL MOUNTED 254 AL COL W/BASE PAIRED W/I
255 AL COL ON CUST OWNED BASE PAIRED W/LT 265400 W HPS - SHOEBOX
266 2-400 W HPS-SHOEBOX
269 AL COL BZ W/BASE PAIRED W/LT
270 AL COL BZ ON CUST BASE PAIRED W/LT
278 FG COL DIRECT BURY PAIRED W/LT 385 PEDESTRIAN LIGHT FOR CIRCLE CENTRE MALL 386 80W LED POST TOP

| 25 | $\$ 381.12$ | $\$ 9,528$ |
| ---: | ---: | ---: |
| 0 | $\$ 340.56$ | $\$ 0$ |
| 42 | $\$ 505.20$ | $\$ 21,218$ |
| 12 | $\$ 339.12$ | $\$ 4,069$ |
| 0 | $\$ 298.68$ | $\$ 0$ |
| 1 | $\$ 463.20$ | $\$ 463$ |
| 27 | $\$ 310.20$ | $\$ 8,375$ |
| 0 | $\$ 269.64$ | $\$ 0$ |
| 31 | $\$ 434.16$ | $\$ 13,459$ |
| 211 | $\$ 297.72$ | $\$ 62,819$ |
| 117 | $\$ 396.48$ | $\$ 46,388$ |
| 0 | $\$ 376.32$ | $\$ 0$ |
| 247 | $\$ 419.04$ | $\$ 103,503$ |
| 336 | $\$ 85.92$ | $\$ 28,869$ |
| 0 | $\$ 942.00$ | $\$ 0$ |
| 0 | $\$ 592.44$ | $\$ 0$ |
| 0 | $\$ 342.24$ | $\$ 0$ |
| 0 | $\$ 539.76$ | $\$ 0$ |
| 0 | $\$ 279.84$ | $\$ 0$ |
| 0 | $\$ 174.00$ | $\$ 0$ |
| 2 | $\$ 351.24$ | $\$ 702$ |
| 13 | $\$ 384.48$ | $\$ 4,998$ |
| 0 | $\$ 426.48$ | $\$ 0$ |
| 1 | $\$ 488.76$ | $\$ 489$ |
| 52 | $\$ 201.36$ | $\$ 10,471$ |
| 14 | $\$ 176.76$ | $\$ 2,475$ |
| 88 | $\$ 152.04$ | $\$ 13,380$ |
| 0 | $\$ 279.48$ | $\$ 0$ |
| 0 | $\$ 422.52$ | $\$ 0$ |
| 0 | $\$ 485.76$ | $\$ 0$ |
| 0 | $\$ 533.52$ | $\$ 0$ |
| 0 | $\$ 325.32$ | $\$ 0$ |
| 122 | $\$ 215.16$ | $\$ 26,250$ |
| 1 | $\$ 119.88$ | $\$ 120$ |
| 1 | $\$ 485.52$ | $\$ 486$ |
| 0 | $\$ 699.36$ | $\$ 0$ |
| 0 | $\$ 234.60$ | $\$ 0$ |
| 0 | $\$ 139.44$ | $\$ 0$ |
| 104 | $\$ 128.64$ | $\$ 13,379$ |
| 0 | $\$ 453.12$ | $\$ 0$ |
| 0 | $\$ 666.48$ | $\$ 0$ |
|  |  |  |
| 923 | $\$ 92.52$ | $\$ 85,396$ |
| 109 | $\$ 117.24$ | $\$ 12,779$ |
|  |  |  |
| 0 |  |  |
| 0 |  |  |

## AES Indiana

Lighting Rate Design
Streetlighting with CIAC
400 LED COBRA HEAD 5000-6000 LUMENS $\quad 14,633 \quad \$ 114.72 \quad \$ 1,678,698$ 401 LED COBRA HEAD 6500-7500 LUMENS
402 LED COBRA HEAD 12500-13500 LUMENS
403 LED COBRA HEAD 20000-21500 LUMENS
$\begin{array}{lll}2,120 & \$ 119.16 & \$ 252,619\end{array}$

405 LED AREA LIGHT 21000-26000 LUMENS
$\$ 137.16 \quad \$ 958,063$
$\$ 158.52 \quad \$ 630,117$
$\$ 136.92 \quad \$ 4.518$
$\$ 162.60 \quad \$ 976$
$\$ 123.84 \quad \$ 4,954$
$\begin{array}{lr}\$ 141.72 & \$ 4,95\end{array}$
406 LED TRAD. POST TOP 6000-7500 LUMENS
$\begin{array}{lr}\$ 121.72 & \$ 0 \\ \$ 120.00 & \$ 19,440\end{array}$
$\begin{array}{lr}\$ 120.00 & \$ 19,440 \\ \$ 250.92 & \$ 3011\end{array}$
$\$ 250.92 \quad \$ 3,01$
$\begin{array}{lr}\$ 386.52 & \$ 773 \\ \$ 232.80 & \$ 2,794\end{array}$
$\$ 228.60 \quad \$ 16,459$
411 LED COBRA 6500-7500 L-OH FROM 218
412 LED COBRA 5000-6000 L-OH FROM 221

| $\$ 165.00$ | $\$ 330$ |
| :--- | ---: |
| $\$ 104.64$ | $\$ 2.721$ |

55250 WATT MV - CUSTOMER OWNED
$\$ 104.64 \quad \$ 2,721$

59400 WATT HPS CUSTOMER OWNED
$\$ 167.64 \quad \$ 79.964$
$\begin{array}{ll}\$ 167.64 & \$ 79,964 \\ \$ 129.84\end{array}$
$\begin{array}{ll}\$ 129.84 \\ \$ 96.60 & \$ 35,05 \\ \$ 24.440\end{array}$
$\begin{array}{rr}\$ 96.60 & \$ 24,440 \\ \$ 354.00 & \$ 97,704\end{array}$
$\$ 154.68 \quad \$ 309$
$\$ 147.72 \quad \$ 8,272$
$\$ 76.80$ \$0

61150 WATT HPS - CUSTOMER OWNED
$\$ 298.92$

| Code | Description | Inventory | Proposed Price <br> Per Waft | Proposed <br> Revenue |
| :---: | :---: | :---: | :---: | :---: |

Customer Installed, Owned, and Maintained (MU-4)

| Total MU-4 | 1,312 | \$ | 0.78 | \$604,465 |
| :---: | :---: | :---: | :---: | :---: |
| MU-4 Watts | 774,956 |  |  |  |
| Total MU | 54,306 |  |  | \$9,959,555 |
|  |  |  | Target | \$9,959,616 |
|  | Over | Un | covery | (\$61) |

Grand Total Lighting (APL and MU) 103,864 $\qquad$
Code Description Minimum Minimum Per

Customer Installed, Owned, and Maintained (MU-4)
$\qquad$

## AES Indiana

Rate Design Summary





## AES Indiana <br> Rate Design Summary

Test Year Ended December 31, 2022

All kW $\$$
14.59 \$
15.54

2

Customer Charge
All Customers $\$ 492.51 \$$

## AES Indiana

Proposed Rates - Residential Bill Impacts - RS Customers
Test year Ending December 31, 2022
Proposed Rates

| Energy Charge |  | Including Fuel |  | Including Fuel \& DSM |  | Excluding Fuel |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current Rate [1] | Proposed Rate | Current <br> Rate [1] | Proposed Rate |  | Current Rate | Proposed Rate |
| First 500 kWh |  | \$ 0.120706 | \$ 0.129954 | \$ 0.123440 | \$ 0.132688 | \$ | 0.081961 | \$ 0.093168 |
| Over 500 kWh | 500 | \$ 0.105241 | \$ 0.114489 | \$ 0.107975 | \$ 0.117223 |  | 0.066496 | \$ 0.077703 |

[1] Includes riders rolled into base rates (TDISC, ECCR, DSM, CAP, RTO and FCA)

| Customer Charge |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 to 325 kWh |  | \$ | 12.31 | \$ | 16.50 | \$ | 12.31 | \$ | 16.50 |
| Over 325 kWh | 325 | \$ | 16.75 | \$ | 25.00 | \$ | 16.75 | \$ | 25.00 |


| DSM Charge (\$/kWh) | $\$ 0.002734$ |
| :--- | :--- |

Bill Impacts for RS Customers

| Line No. | Bill Impacts for RS Customers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Monthly kWh | \% of Customers | Including Fuel \& DSM |  |  |  |  |  | Excluding Fuel |  |  |  |  |  |  |  |
|  |  |  | Monthly Margin or Base Rate |  | Increase / <Decrease> |  |  |  | Monthly Total Bill |  |  |  | Increase / <Decrease> |  |  |  |
|  |  |  | Present <br> Rates | Proposed Rates |  | Amount | Percent | Proposed $\not \subset / k W h$ |  | Present <br> Rates |  | Proposed Rates |  | Amount | Percent | Proposed $\not \subset / k W h$ |
|  | (A) | (B) | (C) | (D) |  | (E) | (F) | (G) |  | (H) |  | (I) |  | (J) | (K) | (L) |
| 1 | 100 | 4.63\% | \$ 24.65 | \$ 29.77 | \$ | 5.12 | 20.77\% | 0.29770 | \$ | 20.51 | \$ | 25.82 | \$ | 5.31 | 25.89\% | 0.25820 |
| 2 | 200 | 4.36\% | 37.00 | 43.04 |  | 6.04 | 16.32\% | 0.21520 |  | 28.70 |  | 35.13 |  | 6.43 | 22.40\% | 0.17565 |
| 3 | 400 | 15.29\% | 66.13 | 78.08 |  | 11.95 | 18.07\% | 0.19520 |  | 49.53 |  | 62.27 |  | 12.74 | 25.72\% | 0.15568 |
| 4 | 600 | 20.59\% | 89.27 | 103.06 |  | 13.79 | 15.45\% | 0.17177 |  | 64.38 |  | 79.35 |  | 14.97 | 23.25\% | 0.13225 |
| 5 | 800 | 18.66\% | 110.86 | 126.51 |  | 15.65 | 14.12\% | 0.15814 |  | 77.68 |  | 94.89 |  | 17.21 | 22.15\% | 0.11861 |
| 6 | 1,000 | 13.29\% | 132.46 | 149.95 |  | 17.49 | 13.20\% | 0.14995 |  | 90.98 |  | 110.43 |  | 19.45 | 21.38\% | 0.11043 |
| 7 | 1,200 | 8.69\% | 154.05 | 173.40 |  | 19.35 | 12.56\% | 0.14450 |  | 104.28 |  | 125.97 |  | 21.69 | 20.80\% | 0.10498 |
| 8 | 1,500 | 7.23\% | 186.45 | 208.56 |  | 22.11 | 11.86\% | 0.13904 |  | 124.23 |  | 149.28 |  | 25.05 | 20.16\% | 0.09952 |
| 9 | 1,800 | 3.45\% | 218.84 | 243.73 |  | 24.89 | 11.37\% | 0.13541 |  | 144.17 |  | 172.59 |  | 28.42 | 19.71\% | 0.09588 |
| 10 | 2,000 | 1.30\% | 240.43 | 267.17 |  | 26.74 | 11.12\% | 0.13359 |  | 157.47 |  | 188.13 |  | 30.66 | 19.47\% | 0.09407 |
| 11 | 2,400 | 1.30\% | 283.62 | 314.06 |  | 30.44 | 10.73\% | 0.13086 |  | 184.07 |  | 219.22 |  | 35.15 | 19.10\% | 0.09134 |
| 12 | 2,700 | 0.46\% | 316.02 | 349.23 |  | 33.21 | 10.51\% | 0.12934 |  | 204.02 |  | 242.53 |  | 38.51 | 18.88\% | 0.08983 |
| 13 | 3,000 | 0.28\% | 348.41 | 384.40 |  | 35.99 | 10.33\% | 0.12813 |  | 223.97 |  | 265.84 |  | 41.87 | 18.69\% | 0.08861 |
| 14 | 4,000 | 0.32\% | 456.38 | 501.62 |  | 45.24 | 9.91\% | 0.12541 |  | 290.47 |  | 343.54 |  | 53.07 | 18.27\% | 0.08589 |
| 15 | 5,000 | 0.08\% | 564.36 | 618.84 |  | 54.48 | 9.65\% | 0.12377 |  | 356.96 |  | 421.24 |  | 64.28 | 18.01\% | 0.08425 |
| 16 | 7,000 | $0.05 \%$ | 780.31 | 853.29 |  | 72.98 | 9.35\% | 0.12190 |  | 489.95 |  | 576.65 |  | 86.70 | 17.70\% | 0.08238 |
| 17 | >7,000 | 0.03\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Average |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 | 748 |  | 105.27 | 120.43 |  | 15.16 | 14.40\% | 0.16097 |  | 74.23 |  | 90.86 |  | 16.63 | 22.40\% | 0.12144 |

## AES Indiana

Proposed Rates - Residential Bill Impacts - RH/RC Customers
Test year Ending December 31, 2022
Proposed Rates

| Energy Charge |  | Including Fuel |  |  | Including Fuel \& DSM |  |  |  | Excluding Fuel |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current Rate [1] |  | Proposed Rate |  | rent Rate [1] |  | Proposed Rate | Current Rate |  | Proposed Rate |
| First 500 kWh |  | \$ 0.120706 | \$ | 0.129954 | \$ | 0.123440 | \$ | 0.132688 | \$ 0.081961 | \$ | 0.093168 |
| Over 500 kWh | 500 | \$ 0.105241 | \$ | 0.114489 | \$ | 0.107975 | \$ | 0.117223 | \$ 0.066496 | \$ | 0.077703 |
| Over 1,000 | 1000 | \$ 0.092827 | \$ | 0.102075 | \$ | 0.095561 | \$ | 0.104809 | \$ 0.054082 | \$ | 0.065289 |

[1] Includes riders rolled into base rates (TDISC, ECCR, DSM, CAP, RTO and FCA)

| 0 to 325 kWh |  | \$ | 12.31 | \$ | 16.50 | \$ | 12.31 | \$ | 16.50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Over 325 kWh | 325 | \$ | 16.75 | \$ | 25.00 | \$ | 16.75 | \$ | 25.00 |

DSM Charge (\$/kWh) \$ 0.002734

Bill Impacts for RH/RC Customer


Class Cost of Service Study
Industrial Low Load Factor Scenario Analysis - Summary of Results


| Line No. | Description | System Total |  | Residential |  | Secondary Small |  |  | Municipal Device |  | Space Conditioning |  | Conditioning Schools |  | Water Heating Controlled |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | RS |  | ss |  |  | MD |  | SH |  | SE |  | CB |  |
|  | (A) |  | ${ }^{(B)}$ |  | (C) |  | (D) |  |  |  |  | (F) |  | (G) |  | H) |
| Revenue Requirement at Equal Rates of Return at |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32 | Required Return |  | 7.22\% |  | 7.22\% |  | 7.22\% |  |  | 7.22\% |  | 7.22\% |  | 7.22\% |  | 7.22\% |
| 33 | Required Operating Income | \$ | 251,393,643 | \$ | 124,873,061 | \$ | 25,100,048 | \$ | S | 38,906 | \$ | 10,652,404 | \$ | 222,479 | \$ | 12,243 |
| 34 | Operating Income (Deficiency)/Surplus | \$ | (100, 353,024) | s | $(90,271,684)$ | \$ | 7,591,321 | \$ |  | 115,163 | \$ | $(4,887,381)$ | \$ | 157,994 | s | (28,655) |
|  | Expenses at Equal Rates of Return at Proposed Rates |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 35 | Operations \& Maintenance Expenses | \$ | 519,486,335 | \$ | 266,613,537 | \$ | 52,781,421 |  | \$ | 93,698 | \$ | 19,548,909 | \$ | 406,362 | \$ | 34,791 |
| 36 | Depreciation Expense |  | 277,353,828 |  | 137,194,292 |  | 29,270,842 |  |  | 46,611 |  | 11,441,084 |  | 236,275 |  | 15,531 |
| 37 | Amortization Expense |  | 54,256,114 |  | 24,830,200 |  | 5,390,179 |  |  | 4,772 |  | 2,386,240 |  | 50,477 |  | 2,007 |
| 38 | Taxes Other than Income |  | 27,273,590 |  | 13,650,991 |  | 2,796,645 |  |  | 4,641 |  | 1,083,375 |  | 22,197 |  | 1,718 |
| 39 | Fuel Expenses |  | 512,591,028 |  | 202,543,435 |  | 49,177,169 |  |  | 35,374 |  | 19,523,247 |  | 608,107 |  | 15,388 |
| 40 | Non-FAC Trackable Fuel Expenses |  | 48,077,469 |  | 21,100,918 |  | 4,685,283 |  |  | 2,451 |  | 2,166,668 |  | 46,822 |  | 1,255 |
| 41 | Income Taxes |  | 47,332,498 |  | 23,511,151 |  | 4,725,847 |  |  | 7,325 |  | 2,005,639 |  | 41,888 |  | 2,305 |
| 42 | Total Expense - Required | s | 1,486,370,864 | \$ | 689,444,524 | \$ | 148,827,387 | \$ |  | 194,872 | \$ | 58,155,162 | \$ | 1,412,129 | \$ | 72,995 |
|  | Total Revenue Requirement at Equal Return | \$ | 1,737,764,507 | \$ | 814,317,585 | \$ | 173,927,435 | \$ | \$ | 233,777 | \$ | 68,807,565 | \$ | 1,634,607 | \$ | 85,238 |
| 44 | Revenue (Deficiency)/Surplus | S | (134,241,770) | \$ | (116,092,147) | \$ | 8,032,870 | \$ |  | 137,848 | \$ | (6,436,013) | s | 181,730 | \$ | $(35,451)$ |
| 4546 | Total Revenues |  | 1,603,522,737 |  | 698,225,438 |  | 181,960,305 |  |  | 371,626 |  | 62,371,552 |  | 1,816,337 |  | 49,787 |
|  | Total Revenues as Proposed | \$ | 1,737,764,507 | \$ | 814,317,585 | \$ | 173,927,435 | \$ |  | 233,777 | \$ | 68,807,565 | \$ | 1,634,607 | \$ | 85,238 |
| 484849 | Less Total Other Revenues | \$ | 21,391,965 | \$ | 14,502,321 | \$ | 1,549,019 | \$ |  | 4,491 | \$ | 531,144 | \$ | 11,978 | \$ | 812 |
|  | Sales for Resale |  | 28,612,056 |  | 12,590,714 |  | 2,789,468 |  |  | 1,445 |  | 1,294,708 |  | 27,705 |  | 744 |
|  | Total Base Rate Revenues as Proposed | s | 1,687,760,486 | \$ | 787,224,550 | \$ | 169,588,948 | s |  | 227,841 | s | 66,981,713 | s | 1,594,925 | \$ | 83,682 |
| $50 \begin{gathered}\text { Mitigation } \\ \text { Mitigation }\end{gathered}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | \$ | 0 | \$ | $(28,244,985)$ | \$ | 10,346,358 | \$ |  | 56,710 | \$ | 493,693 | \$ | 177,271 | \$ | (29,133) |
| 50 51 | $\xlongequal{\text { Proposed Increase Post Mitigation }}$ |  | 134,241,770 |  | 87,847,162 |  | 2,313,488 |  |  | (81,138) |  | 6,929,705 |  | (4,459) |  | 6,318 |
| Revenue Requirement at Proposed Mitigated Rates |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 52 | Revenue Defficiency/Surplus | \$ | 134,241,770 | \$ | 87,847,162 | \$ | 2,313,488 |  |  | ${ }^{(81,138)}$ | \$ | 6,929,705 | \$ | ${ }^{(4,459)}$ | \$ | 6,318 |
| 53 | Total Revenues |  | 1,603,522,737 |  | 698,225,438 |  | 181,960,305 |  |  | 371,626 |  | 62,371,552 |  | 1,816,337 |  | 49,787 |
|  | Total Revenues as Proposed | \$ | 1,737,764,507 | \$ | 786,072,600 | \$ | 184,273,793 | \$ |  | 290,487 | s | 69,301,258 | \$ | 1,811,878 | S | 56,105 |
| 55 | Less Total Other Revenues | \$ | 21,391,965 | \$ | 14,502,321 | \$ | 1,549,019 | \$ |  | 4,491 | \$ | 531,144 | \$ | 11,978 | \$ | 812 |
| 56 | Sales for Resale |  | 28,612,056 |  | 12,590,714 |  | 2,789,468 |  |  | 1,445 |  | 1,294,708 |  | 27,705 |  | 744 |
| 57 | Total Base Rate Revenues as Proposed | s | 1,687,760,486 | \$ | 758,979,565 | \$ | 179,935,305 | \$ |  | 284,552 | \$ | 67,475,406 | s | 1,772,196 | S | 54,550 |
| 58 | Total Margin in Base Rates | \$ | 201,389,622 | \$ | 69,535,041 | \$ | 31,107,918 | \$ |  | 89,680 | \$ | 9,320,244 | \$ | 360,067 | \$ | (18,445) |
| 59 | Expenses (excl. Income Taxes) | \$ | 1,439,038,366 | \$ | 665,933,372 | \$ | 144,101,539 | \$ |  | 187,547 | \$ | 56,149,523 | \$ | 1,370,240 | \$ | 70,689 |
| 60 | Interest Expense |  | 84,886,000 |  | 42,164,848 |  | 8,475,325 |  |  | 13,137 |  | 3,596,908 |  | 75,123 |  | 4,134 |
| 61 | Taxable income | \$ | 213,840,141 | \$ | 77,974,380 | \$ | 31,696,929 |  | \$ | 89,804 | \$ | 9,554,827 | \$ | 366,516 | \$ | $(18,718)$ |
| 62 | Income Taxes |  | 47,332,498 |  | 17,259,258 |  | 7,015,964 |  |  | 19,878 |  | 2,144,915 |  | 81,127 |  | $(4,143)$ |
|  | Operating Income as Proposed | \$ | 251,393,643 | \$ | 102,879,969 | \$ | 33,156,289 | \$ |  | 83,063 | \$ | 11,036,820 | \$ | 360,512 | \$ | ( 10,441 ) |
| 64 | Return at Proposed Rates |  | 7.22\% |  | 5.95\% |  | 9.54\% |  |  | 15.41\% |  | 7.48\% |  | 11.70\% |  | -6.16\% |
| 65 | $\underline{\text { Index Rate of Return }}$ |  | 1.00 |  | 0.82 |  | 1.32 |  |  | 2.13 |  | 1.04 |  | 1.62 |  | $\underline{ }$ |

Industrial Low Load Factor Scenario Analysis - Summary of Results


No. $\qquad$


Mitigated Revenue Requirement
(Excluding Other Revenue and Sale for
Resale Revenues)
266
Ratio of Unmitigated Revenue to Mitigated Revenue

| 100.00\% |  | 95.09\% |  |  | 108.76 |  | 129.72\% |  | 101.06\% |  | 118.50\% |  | 56.88\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | (28,244,985) |  | 10,346,358 |  | 56,710 |  | 493,693 |  | 177,271 |  | (29,133) |
| \$ | 956,237,292 | \$ | 405,108,806 | \$ | 99,545,666 | \$ | 60,216 | \$ | 44,920,774 | \$ | 1,119,13 |  | 14,887 |
| \$ | 195,012,169 | \$ | 141,910,799 | \$ | 28,903,408 | \$ | 187,292 |  | 2,116,847 | \$ | 16,515 | \$ | 23,543 |
| \$ | 23,919,997 | \$ | 9,416,524 | \$ | 2,309,062 | \$ | 1,669 |  | 914,538 |  | 28,438 |  | 732 |
| \$ | 512,591,028 | \$ | 202,543,435 | \$ | 49,177,169 | \$ | 35,374 | \$ | 19,523,247 | \$ | 608,107 | \$ | 15,388 |
| \$ | 1,687,760,486 | \$ | 758,979,565 | \$ | 179,935,305 | \$ | 284,552 | \$ | 67,475,406 | \$ | 1,772,196 |  | 54,550 |

268
269
270
271
272
273
$\begin{array}{ll} \\ 68 & \text { D } \\ 270 & \text { C } \\ 271 & \text { E } \\ 272 & \text { T } \\ & \end{array}$ Total Re
Demand
Customer
Energy
Fuel
Total
Toter

Billing Determinants
274
275
276
277
Demand
Customer Bills (Count *12
Energy
Fuel
Unit Costs
Demand
$\begin{array}{ll}278 & \text { Demand } \\ 279 & \text { Customer } \\ 280\end{array}$
$\begin{array}{ll}280 & \text { Eustom } \\ 281 & \text { Energy } \\ & \end{array}$
282 Demand Revenue
283 Customer Revenue
284 Energy Revenue
${ }_{286}^{285} \begin{gathered}\text { Fuet Revenue } \\ \text { Total Revenue }\end{gathered}$

Total Revenue Requirement (Excluding Fuel)
288
289
290

## Demand Customer

Customer
Energy
Total
$\begin{array}{ll}292 & \text { Potal } \\ 293 & \text { Percent of Total } \\ \text { Zero-Check }\end{array}$
293 Zero-Check


Class Cost of Service Study
Industrial Low Load Factor Scenario Analysis - Summary of |


Industrial Low Load Factor Scenario Analysis - Summary of I


Functional Revenue Requirement

| \$ | 711,021,342 | \$ | 50,912 | s | 169,866,531 | \$ | 1,156,521 | \$ | 121,910,355 | \$ | 1,233,129 | \$ | 956,105 | \$ | 727,067 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 101,626,050 | \$ | 7,277 | s | 24,278,968 | \$ | 165,301 | \$ | 17,424,607 | \$ | 176,251 | \$ | 136,656 | \$ | 103,919 |
| \$ | 51,731,452 | \$ | 5,422 | \$ | 10,694,844 | \$ | 164,678 | \$ | 7,427,190 | \$ | 147,727 | \$ | 195,556 | \$ | 105,864 |
| \$ | 104,562,845 | \$ | 10,959 | \$ | 21,617,087 | \$ | 332,858 | \$ | 15,012,300 | \$ | 298,595 | \$ | 395,270 | \$ | 213,980 |
| \$ | 18,253,723 | \$ | 2,249 | \$ | 4,381,724 | \$ |  | \$ |  | \$ | 61,274 | \$ | 81,112 | \$ | 43,910 |
| \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ |  | \$ | - | \$ |  |
| \$ |  | \$ | - | \$ |  | \$ |  | \$ |  | s |  | \$ |  | \$ |  |
| \$ |  | \$ |  | \$ |  |  |  | \$ | - |  |  | \$ | - | \$ |  |
| \$ | 987,195,412 | \$ | 76,819 | \$ | 230,839,154 | \$ | 1,819,358 | \$ | 161,774,452 | \$ | 1,916,975 | \$ | 1,764,699 | \$ | 1,194,742 |

Production
$\begin{array}{ll}199 & \begin{array}{l}\text { Procuction } \\ \text { Transmision } \\ \text { Distribution }\end{array}\end{array}$
Distribution
Distribution Primary
Distribution Secondary
Distribution Secondary
Customer
Customer Service
Customer
Customer Service
Fuel
Fustemer Expenses
Total
Total
Zero-Check

|  | Energy |
| :--- | :--- |
|  |  |

210 Transmission
212 Distribution
Distribution Secondary
Customer
Customer
Customer Service
Fuel
Customer Service
Fuel Expenses
Total
Total
Zero-Check
$\begin{array}{ll} & \text { Fue } \\ 219 & \text { Fue } \\ 220 & \text { Tot }\end{array}$
Fuel Expenses
Total
Total
Zero-Check
Total
$\begin{array}{lll}\$ & - & \$ \\ \$ & - & \$ \\ \$ & \$ \\ \$ & 66,617,506 & \$ \\ \$ & 22,229,578 \\ \$ \\ \$ & 73,51,894 & \$ \\ \$ & 50,653,735 & \$ \\ \$ & -213, \\ \$ & 213,042,713 & \$\end{array}$
$\begin{array}{ll}- & \$ \\ - & \$ \\ 9,833 & \$ \\ 3,28 & \$ \\ 14,390 & \$ \\ 12,255 & \$ \\ - & \$ \\ 39,761 & \$\end{array}$

| - | $\$$ |
| ---: | ---: |
| - | $\$$ |
| 550,713 | $\$$ |
| 182,451 | $\$$ |
| $1,241,833$ |  |
| $4,833,147$ |  |
| , | $\$$ |
| $6,808,294$ | $\$$ |

$\begin{array}{ll}- & \$ \\ - & \$ \\ -630 & \$ \\ -30 & \$ \\ 6,806 & \$ \\ 5,532 & \$ \\ -12,968 & \$\end{array}$
$\begin{array}{cc}- & \$ \\ - & \$ \\ 19,162 & \$ \\ 70,231 & \$ \\ 168,167 & \$ \\ -757,560 & \$\end{array}$
$\begin{array}{llccc}- & \$ & - & \$ & - \\ - & \$ & - & \$ & - \\ - & \$ & - & \$ & 125,960 \\ 2,647 & \$ & - & \$ & 42,088 \\ 8,84 & \$ & \$ & 8,187,239 & \$ \\ 21,44,7,017 \\ 23,234 & \$ & - & \$ & 20,451 \\ - & \$ & -, 040 \\ 34,040 & \$ & 8,187,239 & \$ & 11,635,476\end{array}$

|  | $24,935,353$ | $\$$ | 2,090 | $\$$ |
| :--- | :---: | :--- | :--- | :--- |
| $\$$ | - | $\$$ | - | $\$$ |
| $\$$ | - | $\$$ | - | $\$$ |
| $\$$ | - | $\$$ | - | $\$$ |
| $\$$ | - | $\$$ | - | $\$$ |
| $\$$ | - | $\$$ | - | $\$$ |
| $\$$ | $\$$ | $\$$ |  |  |
| $\$$ | $24,935,353$ | $\$$ | 2,090 | $\$$ |
| $\$$ | $\$$ | - | $\$$ |  |

        Demand
    Production
Transmission
Production
Transmission
Distribution
$\begin{array}{ll}192 & \begin{array}{l}\text { Distribution } \\ \text { Distribution Primary }\end{array} \\ \end{array}$
193 Distribution Primary
$\begin{array}{ll}194 & \begin{array}{l}\text { Customer } \\ \text { Customer }\end{array} \\ 195\end{array}$
196 Customer Service
Total
Zero-Che
Custar

Industrial Low Load Factor Scenario Analysis - Summary of I
Line
No.

232
233
234
235
236
237
238
239
240
241
242
Biling De
Biling De
Customer Bills (Count *12)
Customer Bills (Count *12)
2 Euel
2 Euel
Unit Costs
Unit Costs
Demand
Demand
Customer
Customer
Demand Revenue
Demand Revenue
Cemand Revenue
Cemand Revenue
CN
CN
Total Revenue
Total Revenue
Adjusted Revenue Requirement Excluding Other Revenue and Sale for Resale Revenues)
243
244
245
246
247
248
249
Motal Revenue Requiremen
Motal Revenue Requiremen
Demand
Demand
Energy
Energy
Billing Determinants
Demand
251
Demand
Customer Bills (Count * ${ }^{* 12}$ )
Customer
Energy
Fuel
Unit Costs
Demand
Demand
Customer
Energy
Custome
Energy
Fuel
Demand Reverue
Customer Revenue
Energy Revenue
Energy Revenue
Fuel Revenue
Fuel Revenue
Total Revenue
Total Revenue
Zero-Check
Grid Facility
Grid Facility - Revenue Requirement
Grid Facility - Revenue Re
Grid Facility - Unit Costs

|  |  |
| :--- | :--- |
|  |  |
| $\$$ |  |
| $\$$ |  |
| $\$$ |  |
| $\$$ |  |
| $\$$ |  |

$95.92 \% \quad 94.91$
4.91\% $\quad 96.11$
$96.11 \% \quad 96.19$
$6.19 \%$ 95.96\%
$6.41 \% \quad 98$.

|  |  |
| ---: | ---: | ---: |
|  |  |

Grid Faciilty - Unit Costs
$469,365,198$
74.02
$\$$
62,326
66.59
$65,142,139$
$1,242.65$
$650,086 \$$
$10,834.77 \$$
$38,501,178$
$21,108.10$
692,101
$2,746.43$
995,200
996.26

Industrial Low Load Factor Scenario Analysis - Summary of |


| 266 | Mitigated Revenue Requirement <br> (Excluding Other Revenue and Sale for <br> Resale Revenues) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ratio of Unmitigated Revenue to Mitigated Revenue | 100.00\% |  |  | 90.56\% |  | 106.21\% |  | 163.98\% | 104.83\% |  | 103.26\% |  | 84.20\% |  | 67.52\% |  |
| 26 |  |  | 0 |  | (10,447) |  | 14,173,757 |  | 1,127,768 |  | 7,512,265 |  | 61,410 |  | (1,551,812) |  | (4,112,854) |
|  | Total Revenue Requirement |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 268 | Demand | \$ | 956,237,292 | \$ | 66,025 | \$ | 235,620,054 | \$ | 2,869,907 | \$ | 162,740,844 | \$ | 1,908,458 | \$ | 1,466,354 | \$ | 796,164 |
| 269 | Customer | \$ | 195,012,169 | \$ | 34,175 | \$ | 6,949,301 | \$ | 20,456 | \$ | 259,098 | \$ | 33,888 | \$ | 6,803,084 | \$ | 7,753,761 |
| 270 | Energy | \$ | 23,919,997 | \$ | 1,984 | \$ | 6,007,755 | \$ | 33,321 | \$ | 5,010,289 | \$ | 48,260 | \$ | 82,845 | \$ | 64,580 |
| 271 | Fuel | \$ | 512,591,028 | \$ | 42,966 | \$ | 128,502,956 | \$ | 712,070 | \$ | 107,330,488 | \$ | 1,029,031 | \$ | 1,725,688 | \$ | 1,345,111 |
| 272 | Total | \$ | 1,687,760,486 | \$ | 145,150 | \$ | 377,080,066 | \$ | 3,635,754 | \$ | 275,340,720 | \$ | 3,019,637 | \$ | 10,077,971 | \$ | 9,959,616 |
| 273 | Zero-Check |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |
|  | Billing Determinants |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 274 | Demand |  | 14,051,478 |  | 0 |  | 8,673,249 |  | 115,900 |  | 5,262,329 |  | 0 |  | 0 |  | 0 |
| 275 | Customer Bills (Count *12) |  | 6,341,275 |  | 936 |  | 52,422 |  | 60 |  | 1,824 |  | 252 |  | 0 |  | 11,990 |
| 276 | Energy |  | 13,039,005,303 |  | 1,087,210 |  | 3,251,621,209 |  | 18,392,546 |  | 2,783,973,632 |  | 26,038,450 |  | 43,666,570 |  | 34,036,499 |
|  | Fuel |  | 13,039,005,303 |  | 1,087,210 |  | 3,251,621,209 |  | 18,392,546 |  | 2,783,973,632 |  | 26,038,450 |  | 43,666,570 |  | 34,036,499 |
|  | Unit Costs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 278 | Demand |  |  | \$ | - | \$ | 27.17 | \$ | 24.76 | \$ | 30.93 | \$ | - | \$ | - | \$ | - |
| 279 | Customer | . |  | \$ | 107.05 | \$ | 132.56 | \$ | 340.93 | \$ | 142.05 | \$ | 7,707.72 |  | \#DIV0! | \$ | 713.09 |
| 280 | Energy |  |  | \$ | 0.001825 | \$ | 0.001848 | \$ | 0.001812 | \$ | 0.060349 | \$ | 0.001853 | \$ | 0.001897 | \$ | 0.001897 |
| 281 | Fuel | . |  | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.038715 | \$ | 0.038553 | \$ | 0.039520 | \$ | 0.039520 | \$ | 0.039520 |
| 282 | Demand Revenue |  |  | \$ | - | \$ | 235,620,054 | \$ | 2,869,907 | \$ | 162,740,844 | \$ |  | \$ | - | \$ | - |
| 283 | Customer Revenue |  |  |  | 100,200 |  | 6,949,301 |  | 20,456 |  | 259,098 |  | 1,942,347 |  | \#DIV/0! |  | 8,549,925 |
| 284 | Energy Revenue |  |  |  | 1,984 |  | 6,007,755 |  | 33,321 |  | 168,010,232 |  | 48,260 |  | 82,845 |  | 64,580 |
| 285 | Fuel Revenue | \$ | - |  | 42,966 |  | 128,502,956 |  | 712,070 |  | 107,330,488 |  | 1,029,031 |  | 1,725,688 |  | 1,345,111 |
| 286 | Total Revenue |  |  |  | 145,150 |  | 377,080,066 |  | 3,635,754 |  | 438,340,663 |  | 3,019,637 |  | \#DIV0! |  | 9,959,616 |
| 28 | Zero-Check | . |  | \$ | - | \$ | - | \$ | - | \$ | 162,999,943 | \$ | - |  | \#DIV0! | \$ | - |
|  | Total Revenue Requirement (Excluding Fuel) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 288 | Demand | \$ | 956,237,292 | \$ | 66,025 | \$ | 235,620,054 | \$ | 2,869,907 | \$ | 162,740,844 | \$ | 1,908,458 | \$ | 1,466,354 | \$ | 796,164 |
| 289 | Customer | \$ | 195,012,169 | \$ | 34,175 | \$ | 6,949,301 | \$ | 20,456 | \$ | 259,098 | \$ | 33,888 | \$ | 6,803,084 | \$ | 7,753,761 |
| 290 | Energy | \$ | 23,919,997 | \$ | 1,984 | \$ | 6,007,755 | \$ | 33,321 | \$ | 5,010,289 | \$ | 48,260 | \$ | 82,845 | \$ | 64,580 |
| 291 | Total | \$ | 1,175,169,458 | \$ | 102,184 | \$ | 248,577,110 | \$ | 2,923,684 | \$ | 168,010,232 | \$ | 1,990,607 | \$ | 8,352, 283 | \$ | 8,614,505 |
| 292 | Percent of Total |  | 100.00\% |  | 0.01\% |  | 21.15\% |  | 0.25\% |  | 14.30\% |  | 0.17\% |  | 0.71\% |  | 0.73\% |
| 293 | Zero-Check |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - |

aES INDIANA


| Industrial Low Load Factor Scenario Analysis - Mitig |  |  |  |  |  |  |  |  |  |  |  |  |  | Final Mitigation (same end result as Company's Proposal for other |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | B | Q |  | R | s |  | T | u | v |  | w |  | x | Y |  | z |  |
|  |  | Final Rate Incr. |  | evised Revenue Requirement |  | Revised Mitigation | $\begin{gathered} \text { Current } \\ \text { Subsidy } \\ \text { Eliminated (\%) } \end{gathered}$ | Revenue to Cost Ratio |  | Proposed Case Final Rev Req |  | Difference | \% Difference |  | Final Revenue Requirement |  | Total Mitigation |
| System Total |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Residential | RS | 13.39\% | \$ | 758,979,565 | \$ | $(28,244,985)$ | 42.57\% | 0.96 | \$ | 758,979,565 | \$ | - | 0.00\% | \$ | 758,979,565 | \$ | $(28,244,985)$ |
| Secondary Small [1] | ss | 1.38\% | \$ | 179,983,835 | \$ | 10,167,046 | 52.87\% | 1.06 | \$ | 180,219,857 | \$ | 236,022 | 0.13\% | \$ | 180,219,857 | \$ | 10,403,068 |
| Space Conditioning | SH | 11.71\% | \$ | 67,464,968 | \$ | 483,255 | 162.95\% | 1.01 | \$ | 67,475,406 | \$ | 10,438 | 0.02\% | \$ | 67,475,406 | \$ | 493,693 |
| Space Conditioning - Schools | SE | 0.00\% | \$ | 1,772,196 | \$ | 177,271 | 40.93\% | 1.11 | \$ | 1,772,196 | \$ | - | 0.00\% | s | 1,772,196 | \$ | 177,271 |
| Water Heating-Controlled | CB | 13.39\% | \$ | 54,550 | \$ | $(29,133)$ | -0.83\% | 0.65 | \$ | 54,550 | \$ |  | 0.00\% | \$ | 54,550 | \$ | $(29,133)$ |
| Water Heating - Uncontrolled | UW | 13.39\% | \$ | 145,150 | \$ | $(10,447)$ | 29.55\% | 0.93 | \$ | 145,150 | \$ | - | 0.00\% | \$ | 145,150 | \$ | $(10,447)$ |
| Secondary Large | SL | 5.29\% | \$ | 376,725,580 | \$ | 13,819,271 | 40.57\% | 1.04 | \$ | 377,080,066 |  | 354,486 | 0.09\% | \$ | 377,080,066 | \$ | 14,173,757 |
| Industrial - Low Load Factor | PL-LLF | 0.00\% | \$ | 3,635,754 | \$ | 1,127,768 | 17.11\% | 1.45 |  | 278,976,474 |  | (602,472) | -0.22\% | \$ | 3,635,754 | \$ | 1,127,768 |
| Primary Large | PL-HL | 6.81\% | \$ | 275,943,192 | \$ | 8,114,737 | 20.63\% | 1.03 |  |  |  |  |  | \$ | 275,340,720 | \$ | 7,512,265 |
| Process Heating | PH | 8.86\% | \$ | 3,018,111 | \$ | 59,884 | -7.72\% | 1.02 | \$ | 3,019,637 | \$ | 1,527 | 0.05\% | s | 3,019,637 | \$ | 61,410 |
| Automatic Protective Lighting | APL | 13.39\% | \$ | 10,077,971 | \$ | $(1,551,812)$ | 37.18\% | 0.87 | \$ | 10,077,971 | \$ |  | 0.00\% | \$ | 10,077,971 |  | (1,551,812) |
| Municipal Lighting | MU1 | 13.39\% | \$ | 9,959,616 | \$ | $(4,112,854)$ | 4.29\% | 0.71 | s | 9,959,616 | \$ | - | 0.00\% | s | 9,959,616 | \$ | $(4,112,854)$ |
|  |  | 9.01\% | \$ | 1,687,760,486 | \$ | 0 |  | 1.00 | \$ | 1,687,760,486 | \$ | 0 |  | \$ | 1,687,760,486 | \$ | 0 |
| Notes: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [1] Includes new rate code MD (Small Metered Device) No rate Reduction |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Final Rate |  | evised Revenue Requirement |  | Revised Mitigation | $\begin{gathered} \text { Current } \\ \text { Subsidy } \\ \text { Eliminated (\%) } \end{gathered}$ | Revenue to Cost Ratio |  | Proposed Case Final Rev Req |  | Difference | \% Difference |  | Final Revenue Requirement |  | Total Mitigation |
| System Total |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Residential |  | 13.39\% | \$ | 758,979,565 | \$ | $(28,244,985)$ | 42.57\% | 0.96 | \$ | 758,979,565 | \$ | - | 0.00\% | \$ | 758,979,565 |  | $(28,244,985)$ |
| Small C\&1 |  | 3.98\% | \$ | 249,420,698 | \$ | 10,787,992 | 48.77\% | 1.05 | \$ | 249,667,157 | \$ | 246,459 | 0.10\% | \$ | 249,667,157 | \$ | 11,034,451 |
| Large C\&1 |  | 5.91\% | \$ | 659,322,636 | \$ | 23,121,660 | 33.73\% | 1.04 | \$ | 659,076,177 | \$ | $(246,459)$ | -0.04\% | S | 659,076,177 | \$ | 22,875,200 |
| Lighting |  | 13.39\% | \$ | 20,037,587 | \$ | $(5,664,666)$ | 16.29\% | 0.78 | \$ | 20,037,587 | S | - | 0.00\% | S | 20,037,587 | \$ | $(5,664,666)$ |
|  |  | 9.01\% | \$ | 1,687,760,486 | \$ | (0) |  | 1.00 | \$ | 1,687,760,486 | \$ | 0 |  | \$ | 1,687,760,486 | \$ | 0 |

## AES Indiana

Industrial Low Load Factor Scenario Analysis
Class Cost of Service - Industrial Rate Classes
Test Year Ended December 31, 2022

|  |  |  | Primary Service (Large) | High Load Factor (Primary Distribution) | High Load Factor (Sub transmission) | High Load Factor (Transmission) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No. | Description | Industrial Total | PL | HLI | HL2 | HL3 |
|  | (A) | (B) | (C) | (D) | (E) | (F) |

## Functional Revenue Requirement

Allocation of the Revenue Requirement - Demand Component

| Production |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Allocated Production Demand Cost | \$ | 121,910,355 | \$ | 52,240,972 | \$ | 52,047,760 | \$ | 7,936,662 | \$ | 9,684,962 |
| Demand Billing Determinants |  | 5,262,329 |  | 2,245,522 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| Loss Factor Adjustment |  |  |  | 1.058 |  | 1.058 |  | 1.029 |  | 1.027 |
| Adjusted Demand Billing Determinants |  | 5,543,541 |  | 2,375,516 |  | 2,366,730 |  | 360,898 |  | 440,397 |
| Cost Allocation Factors |  | 100.00\% |  | 42.85\% |  | 42.69\% |  | 6.51\% |  | 7.94\% |
| Production Demand Charge | \$ | 23.17 | \$ | 23.26 | \$ | 23.26 | \$ | 22.62 | \$ | 22.59 |
| Transmission |  |  |  |  |  |  |  |  |  |  |
| Allocated Transmission Demand Cost |  | 17,424,607 | \$ | 7,466,785 | \$ | 7,439,169 | \$ | 1,134,384 | \$ | 1,384,268 |
| Demand Billing Determinants |  | 5,262,329 |  | 2,245,522 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| Loss Factor Adjustment |  |  |  | 1.058 |  | 1.058 |  | 1.029 |  | 1.027 |
| Adjusted Demand Billing Determinants |  | 5,543,541 |  | 2,375,516 |  | 2,366,730 |  | 360,898 |  | 440,397 |
| Cost Allocation Factors |  | 100.00\% |  | 42.85\% |  | 42.69\% |  | $6.51 \%$ |  | 7.94\% |
| Transmission Demand Charge | \$ | 3.31 | \$ | 3.33 | \$ | 3.33 | \$ | 3.23 | \$ | 3.23 |
| Total Production and Transmission | \$ | 139,334,962 | \$ | 59,707,757 | \$ | 59,486,929 | \$ | 9,071,046 | \$ | 11,069,230 |
| Demand Billing Determinants |  | 5,262,329 |  | 2,245,522 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| Production and Transmission Demand Charge | \$ | 26.48 | \$ | 26.59 | \$ | 26.59 | \$ | 25.86 | \$ | 25.82 |

$\left.\begin{array}{lrrrrrr}\text { Distribution and Distribution Primary } & & & & & & \\ \hline \begin{array}{l}\text { Allocated Station Equipment } \\ \text { Allocated Primary Distribution Demand Cost }\end{array} & \$, 427,190 \\ 15,012,300\end{array}\right)$

## Allocation of the Revenue Requirement - Customer Component

Distribution Primary

| Allocated Distribution Primary Cost | \$ | 19,162 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Customers | 146 |  |  |  |  |  |  |  |  |  |
| Distribution Primary Cost Per Customer | \$ | 131 |  |  |  |  |  |  |  |  |
| Number of Customers by Rate Class | 146 |  | 120 |  |  | 26 |  | - |  | - |
| Total Distribution Primary Cost | \$ | 19,162 | \$ | 15,749 | \$ | 3,412 | \$ | - | \$ | - |

## Meter Costs

|  | $\$$ | 55,456 |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Allocated Meter Costs | $\$$ | 496,259 | $\$$ | 336,438 | $\$$ | 119,696 | $\$$ | 24,112 |
| Total Meter Embedded Cost |  | $100 \%$ |  | $67.79 \%$ |  | 16,013 |  |  |
| Cost Allocation Factors | $\$$ | 55,456 | $\$$ | 37,596 | $\$$ | 13,376 | $\$$ | $4.86 \%$ |
| Meter Costs - Allocated |  |  |  |  |  |  |  |  |

## AES Indiana

Industrial Low Load Factor Scenario Analysis
Class Cost of Service - Industrial Rate Classes
Test Year Ended December 31, 2022

| Line No. | Description | Industrial Total | Primary Service (Large) PL | High Load Factor (Primary Distribution) HLI | High Load Factor (Sub transmission) HL2 | High Load Factor (Transmission) HL3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) | (B) | (C) | (D) | (E) | (F) |
| 44 | Ratio Check |  |  |  |  |  |
| 45 | Number of Customers by Rate Class | 153 | 120 | 26 | 5 | 2 |
| 46 | Per Customer Meter Cost - Actual | 3,244 | 2,804 | 4,604 | 4,822 | 8,007 |
| 47 | Scaling of Meter Cost - Actual |  | 1.00 | 1.64 | 1.72 | 2.86 |
| 48 | Per Customer Meter Cost - Allocated | 362 | 313 | 514 | 539 | 895 |
| 49 | Scaling of Meter Cost - Allocated |  | 1.00 | 1.64 | 1.72 | 2.86 |
| 50 | Check |  | TRUE | TRUE | TRUE | TRUE |

## 51 Additional Customer Costs

## Allocation of the Revenue Requirement - Energy Component

Total Revenue Requirement - Energy Component
Allocated Energy Costs \$ 5,221,168

## Allocation of the Revenue Requirement - Fuel Component

## 79 Total Functional Revenue Requirement

| 80 | Demand | $\$ 161,774,452$ | $\$$ | $70,948,288$ | $\$$ | $70,685,888$ | $\$$ | $9,071,046$ |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

## AES Indiana

Industrial Low Load Factor Scenario Analysis
Class Cost of Service - Industrial Rate Classes
Test Year Ended December 31, 2022

| Line No. | Description | Industrial Total |  | imary Service (Large) PL |  | High Load actor (Primary Distribution) HLI |  | High Load Factor (Sub ransmission) HL2 |  | High Load Factor ransmission) HL3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (A) | (B) |  | (C) |  | (D) |  | (E) |  | (F) |
| 86 | Adjusted Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues) |  |  |  |  |  |  |  |  |  |
| 87 | Other Revenue \& Sales for Resale |  |  |  |  |  |  |  |  |  |
| 88 | Total Base Revenue Excl. Fuel | \$ 160,497,967 |  |  |  |  |  |  |  |  |
| 89 | Total Revenue Excl. Fuel | 167,253,179 |  |  |  |  |  |  |  |  |
| 90 | Ratio of Base Revenue to Total Revenue | 95.96\% |  |  |  |  |  |  |  |  |
| 91 | Total Functional Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues) |  |  |  |  |  |  |  |  |  |
| 92 | Demand | \$ 155,240,521 | \$ | 68,082,747 | \$ | 67,830,945 | \$ | 8,704,674 | \$ | 10,622,153 |
| 93 | Customer | 247,157 |  | 188,880 |  | 45,943 |  | 8,323 |  | 4,012 |
| 94 | Energy | 5,010,289 |  | 1,977,114 |  | 2,280,132 |  | 314,095 |  | 438,948 |
| 95 | Fuel | 107,330,488 |  | 42,353,767 |  | 48,845,014 |  | 6,728,550 |  | 9,403,158 |
| 96 | Total Revenue Requirement Excl. Other Revenue | \$ 267,828,455 | \$ | 112,602,508 | \$ | 119,002,034 | \$ | 15,755,642 | \$ | 20,468,271 |
| 97 | Check | TRUE |  |  |  |  |  |  |  |  |
| 98 | Billing Determinants |  |  |  |  |  |  |  |  |  |
| 99 | Demand | 5,262,329 |  | 2,245,522 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| 100 | Customer Bills | 1,836 |  | 1,440 |  | 312 |  | 60 |  | 24 |
| 101 | Energy | 2,717,656,832 |  | 1,068,995,321 |  | 1,232,832,303 |  | 173,222,008 |  | 242,607,200 |
| 102 | Fuel | 2,717,656,832 |  | 1,068,995,321 |  | 1,232,832,303 |  | 173,222,008 |  | 242,607,200 |
| 103 | Unit Costs |  |  |  |  |  |  |  |  |  |
| 104 | Demand | \$ 29.50 | \$ | 30.32 | \$ | 30.32 | \$ | 24.81 | \$ | 24.77 |
| 105 | Customer | \$ 134.62 | \$ | 131.17 | \$ | 147.25 | \$ | 138.71 | \$ | 167.17 |
| 106 | Energy | \$ 0.001844 | \$ | 0.001850 | \$ | 0.001850 | \$ | 0.001813 | \$ | 0.001809 |
| 107 | Fuel | \$ 0.039494 | \$ | 0.039620 | \$ | 0.039620 | \$ | 0.038844 | \$ | 0.038759 |

## Mitigated Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues)

## Mitigation

| Mitigated Amount - Demand | $\$$ | $7,500,324$ |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cost Allocation Factors |  | $100.00 \%$ |  | $43.86 \%$ |  | $43.69 \%$ | $5.61 \%$ |  |
| Mitigation Amount Allocated - Demand | $\$$ | $7,500,324$ | $\$$ | $3,289,364$ | $\$$ | $3,277,199$ | $\$$ | 420,560 |
|  |  |  |  |  |  |  |  |  |
| Mitigated Amount - Customer | $\$$ | 11,941 |  |  |  |  |  |  |
| Cost Allocation Factors |  | $100.00 \%$ |  | $76.42 \%$ | $18.59 \%$ |  | $3.37 \%$ |  |
| Mitigation Amount Allocated - Customer | $\$$ | 11,941 | $\$$ | 9,126 | $\$$ | 2,220 | $\$$ | 402 |

Total Mitigated Functional Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues)

| 118 | Demand |  | 162,740,844 | \$ | 71,372,112 | \$ | 71,108,144 | \$ | 9,125,234 | \$ | 11,135,354 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 119 | Customer |  | 259,098 |  | 198,005 |  | 48,162 |  | 8,725 |  | 4,206 |
| 120 | Energy |  | 5,010,289 |  | 1,977,114 |  | 2,280,132 |  | 314,095 |  | 438,948 |
| 121 | Fuel |  | 107,330,488 |  | 42,353,767 |  | 48,845,014 |  | 6,728,550 |  | 9,403,158 |
| 122 | Total Mitigated Revenue Requirement Excl. Other Revenue | \$ | 275,340,720 | \$ | 115,900,998 | \$ | 122,281,452 | \$ | 16,176,604 | \$ | 20,981,666 |
| 123 | Check |  | TRUE |  |  |  |  |  |  |  |  |
| 124 | Billing Determinants |  |  |  |  |  |  |  |  |  |  |
| 125 | Demand |  | 5,262,329 |  | 2,245,522 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| 126 | Customer Bills |  | 1,836 |  | 1,440 |  | 312 |  | 60 |  | 24 |
| 127 | Energy |  | 2,717,656,832 |  | 1,068,995,321 |  | 1,232,832,303 |  | 173,222,008 |  | 242,607,200 |
| 128 | Fuel |  | 2,717,656,832 |  | 1,068,995,321 |  | 1,232,832,303 |  | 173,222,008 |  | 242,607,200 |
| 129 | Unit Costs |  |  |  |  |  |  |  |  |  |  |
| 130 | Demand | \$ | 30.93 | \$ | 31.78 | \$ | 31.78 | \$ | 26.01 | \$ | 25.97 |
| 131 | Customer | \$ | 141.12 | \$ | 137.50 | \$ | 154.37 | \$ | 145.41 | \$ | 175.24 |
| 132 | Energy | \$ | 0.001844 | \$ | 0.001850 | \$ | 0.001850 | + | 0.001813 | \$ | 0.001809 |
| 133 | Fuel | \$ | 0.039494 | \$ | 0.039620 | \$ | 0.039620 | \$ | 0.038844 | \$ | 0.038759 |

## AES Indiana

Industrial Low Load Factor Scenario Analysis
Class Cost of Service - Industrial Rate Classes
Test Year Ended December 31, 2022

|  |  |  | Primary Service (Large) | High Load Factor (Primary Distribution) | High Load Factor (Sub transmission) | High Load Factor (Transmission) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line No. | Description | Industrial Total | PL | HLI | HL2 | HL3 |
|  | (A) | (B) | (C) | (D) | (E) | (F) |

## Comparison of Current and Proposed Pro Forma Revenues

| Total Current Revenue | $\$ 258,361,017$ |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Large Commercial Sales Revenue | $\$ 258,240,867$ | $\$$ | $104,751,326$ | $\$$ | $116,091,486$ | $\$$ | $16,730,719$ |
| Cost Allocation Factors | $100.00 \%$ |  | $40.56 \%$ | $40,967,336$ |  |  |  |
| Total Current Revenue Allocated | $\$ 258,361,017$ | $\$$ | $104,800,063$ | $\$$ | $116,145,499$ | $\$$ | $16,738,503$ |
| Unmitigated Proposed Revenue | $\$ 267,828,455$ | $\$$ | $112,602,508$ | $\$$ | $119,002,034$ | $\$$ | $15,755,642$ |


| 145 | In |
| :--- | :--- |
| 146 | N |
| 147 | M |
| 148 | M |
| 149 | Fin |
| 150 | In |

Industrial Rates Additional Mitigation

| No Rate Reduction | 561,899 |  | - |  | - |  | 561,899 |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mitigate Rates with Increase | 561,899 |  | 251,287 |  | 265,121 |  | - |  | 45,491 |
| Mitigation | - |  | $(251,287)$ |  | $(265,121)$ |  | 561,899 |  | $(45,491)$ |
| Final Mitigated Proposed Revenues | \$ 275,340,720 | \$ | 115,649,711 | \$ | 122,016,331 | \$ | 16,738,503 | \$ | 20,936,175 |
| Increase: Mitigated - Current (\%) | 6.57\% |  | 10.35\% |  | 5.05\% |  | 0.00\% |  | 1.25\% |

Total Mitigated Functional Revenue Requirement (Excluding Other Revenue and Sale for Resale Revenues)

| Demand | \$ | 162,741,199 | \$ | 71,121,520 | \$ | 70,843,203 | \$ | 9,686,597 | \$ | 11,089,881 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Customer |  | 258,743 |  | 197,310 |  | 47,983 |  | 9,262 |  | 4,189 |
| Energy |  | 5,010,289 |  | 1,977,114 |  | 2,280,132 |  | 314,095 |  | 438,948 |
| Fuel |  | 107,330,488 |  | 42,353,767 |  | 48,845,014 |  | 6,728,550 |  | 9,403,158 |
| Total Mitigated Revenue Requirement Excl. Other Revenue | \$ | 275,340,720 | \$ | 115,649,711 | \$ | 122,016,331 | \$ | 16,738,503 | \$ | 20,936,175 |
| Check |  | TRUE |  |  |  |  |  |  |  |  |

## Billing Determinants

| Demand | 5,262,329 |  | 2,245,522 |  | 2,237,217 |  | 350,806 |  | 428,784 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Customer Bills | 1,836 |  | 1,440 |  | 312 |  | 60 |  | 24 |
| Energy | 2,717,656,832 |  | 1,068,995,321 |  | 1,232,832,303 |  | 173,222,008 |  | 2,607,200 |
| Fuel | 2,717,656,832 |  | 1,068,995,321 |  | 1,232,832,303 |  | 173,222,008 |  | 2,607,200 |
| Unit Costs |  |  |  |  |  |  |  |  |  |
| Demand | \$ 30.93 | \$ | 31.67 | \$ | 31.67 | \$ | 27.61 | \$ | 25.86 |
| Customer | \$ 140.93 | \$ | 137.02 | \$ | 153.79 | \$ | 154.36 | \$ | 174.53 |
| Energy | \$ 0.001844 | \$ | 0.001850 | \$ | 0.001850 | \$ | 0.001813 | \$ | 0.001809 |
| Fuel | \$ 0.039494 | \$ | 0.039620 | \$ | 0.039620 | \$ | 0.038844 | \$ | 0.038759 |

AES Indianc
Industrial Low Load Factor Scenario Analysis - Rate Design Summary rest Year Ended December 31, 2022






AES Indiana
Pro Forma Revenue at Proposed Rates
Test Year Ended December 31, 2022
High Load Factor Service - Sub transmission (HL2)
Industrial Low Load Factor Scenario Analysis


| CGS Demand Charge |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :--- | :--- | :--- | :--- | :--- | :--- |
| BUM | 114,726 | $\$$ | 0.7420 | $\$$ | 85,127 | $\$$ | - | $\$$ | - | $\$$ | 85,127 |
| T\&D | 72,000 | $\$$ | 3.29 | $\$$ | 236,764 | $\$$ | - | $\$$ | - | $\$$ | 236,764 |

Contract Riders
Allocated CSC Revenues + DSM
No. 3 TDSIC
No. 4 Additional Charges for other facilifies
No. 6 Fuel Cost Adjustment
No. 8 Off Peak Service
No. 9 Net Metering
No. 14 Interruptible Power
No. 15 Load Displacement
No. 17 Curfailment Energy
No. 18 Curtailment Energy I
No. 20 Environmental Compliance Cost Recovery
No. 22 Demand-Side
No. 22 Demand-side Management Adjustment No. 24 Capacity Adjustment No. 26 Regional Transmission Organization Rider

Grand Total
$\$ \quad 16,738,503$ \$
$\$ 16,738,503$

## AES Indiana

Revenue Percentages
Test Year Ended December 31, 2022

TDSIC Allocation Factors

| (A) | (B) |  | (C) | (D) |  | (E) | (F) | (G) |  | (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Class | Rate Code(s) |  | Total Revenue Requirement | Percent |  | Class Revenue Allocation Transmission | Percent |  | ss Revenue Allocation istribution | Percent |
| Residential | RS, RC, RH | \$ | 758,979,565 | 44.97\% | \$ | 40,653,326 | 41.22\% | \$ | 151,452,904 | 60.69\% |
| Small C\&I | SS, SH, SE, CB, UW |  | 249,667,157 | 14.79\% |  | 15,005,914 | 15.21\% |  | 35,536,590 | 14.24\% |
| Large C\&I-Secondary | SL, PH |  | 380,099,703 | 22.52\% |  | 24,957,566 | 25.30\% |  | 38,709,036 | 15.51\% |
| Large C\&I - Primary | PL, HL |  | 278,976,474 | 16.53\% |  | 17,843,429 | 18.09\% |  | 22,957,854 | 9.20\% |
| Lighting | APL, MUI | \$ | 20,037,587 | 1.19\% | \$ | 176,773 | 0.18\% | \$ | 882,874 | 0.35\% |
| TOTAL SYSTEM |  | \$ | 1,687,760,486 | 100.00\% | \$ | 98,637,007 | 100.00\% | \$ | 249,539,258 | 100.00\% |

Rate Code Allocations

| (A) | (B) |  | (C) | (D) |  | (E) | (F) |  | (G) | (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Class | Rate Code |  | Total Revenue Requirement | Percent |  | Class Revenue Allocation Transmission | Percent | Class Revenue Allocation Distribution |  | Percent |
| Residential Service (Rate RS) - Codes RS, RC, RH | RS | \$ | 758,979,565 | 44.97\% | \$ | 40,653,326 | 41.22\% | \$ | 151,452,904 | 60.69\% |
| Secondary Service (Small) (Rate SS) | SS |  | 179,935,305 | 10.66\% |  | 10,404,132 | 10.55\% | \$ | 25,395,357 | 10.18\% |
| Municipal Device (Rate MD) | MD |  | 284,552 | 0.02\% |  | 6,465 | 0.01\% | \$ | 121,519 | 0.05\% |
| Electric Space Conditioning-Secondary Service (Rate SH) | SH |  | 67,475,406 | 4.00\% |  | 4,475,491 | 4.54\% | \$ | 9,754,204 | $3.91 \%$ |
| Electric Space Conditioning-Schools (Rate SE) | SE |  | 1,772,196 | 0.11\% |  | 112,098 | 0.11\% | \$ | 227,158 | 0.09\% |
| Water Heating-Controlled Service (Rate CB/CW) | CB |  | 54,550 | 0.00\% |  | 1,471 | 0.00\% | \$ | 11,072 | 0.00\% |
| Water Heating-Uncontrolled Service (Rate UW) | UW |  | 145,150 | 0.01\% |  | 6,257 | 0.01\% | \$ | 27,280 | 0.01\% |
| Secondary Service (Large) - (Rate SL) | SL |  | 377,080,066 | 22.34\% |  | 24,782,096 | 25.12\% | \$ | 38,200,196 | 15.31\% |
| Primary Service (Large) - (Rate PL) | PL |  | 119,707,642 | 7.09\% |  | 7,866,914 | 7.98\% | \$ | 11,788,962 | 4.72\% |
| Process Heating (Rate PH) | PH |  | 3,019,637 | 0.18\% |  | 175,469 | 0.18\% | \$ | 508,840 | 0.20\% |
| High Load Factor (Rate HL-1) (Primary Distribution) | HL1 |  | 121,643,680 | 7.21\% |  | 7,453,134 | 7.56\% | \$ | 11,168,892 | 4.48\% |
| High Load Factor (Rate HL-2) (Sub transmission) | HL2 |  | 16,738,465 | 0.99\% |  | 1,136,514 | 1.15\% | \$ | - | 0.00\% |
| High Load Factor (Rate HL-3) (Transmission) | HL3 |  | 20,886,687 | 1.24\% |  | 1,386,867 | 1.41\% | \$ | - | 0.00\% |
| Automatic Protective Lighting - APL | APL |  | 10,077,971 | 0.60\% |  | 107,413 | 0.11\% | \$ | 528,136 | 0.21\% |
| Municipal Lighting MU-1 | MUI | \$ | 9,959,616 | 0.59\% | \$ | 69,360 | 0.07\% | \$ | 354,738 | 0.14\% |
| TOTAL SYSTEM |  | \$ | 1,687,760,486 | 100.00\% | \$ | 98,637,007 | 100.00\% | \$ | 249,539,258 | 100.00\% |


[^0]:    ${ }^{1}$ Cause Nos. 44576 and 45029.

[^1]:    ${ }^{2}$ Cause Nos. 44576 and 45029.

[^2]:    ${ }^{3}$ Bonbright, James C. (1961). Principles of Public Utility Rates, New York: Columbia University Press.

[^3]:    ${ }^{4}$ Rate MD (Small Metered Service) was an exception to the no rate reduction rule since this is a new rate being proposed in this case to accommodate small devices that do not belong in Rate SS.

[^4]:    ${ }^{5}$ Indianapolis Power and Light Company, Cause No. 44576 (IURC 3/16/16), page 72.

