BEFORE THE PUBLIC UTILITY COMMISSION

OF THE STATE OF VERMONT

PUC Case No. _____

Petition of Washington Electric Cooperative, Inc. (WEC) requesting rate design changes and a change in rate schedules pursuant to 30 V.S.A. § 225 and 226 effective June 17, 2019

PREFILED DIRECT TESTIMONY OF JASON A. STRONG ON BEHALF OF WASHINGTON ELECTRIC COOPERATIVE, INC.

May 1, 2019

Summary of Testimony

Mr. Strong's prefiled direct testimony supports the Fully Allocated, Embedded Cost of Service Study and Rate Design mechanics provided in support of Washington Electric Cooperative, Inc.'s (WEC) proposed rate design. Mr. Strong sponsors the following Exhibits:

WEC 10-JAS-1: Cost of Service Study
WEC 11-JAS-2: Cost of Service Study Cost-Based Rates
WEC 12-JAS-3: Proposed Rate Design
WEC 13-JAS-4: Incremental Cost Analysis
WEC 14-JAS-5: Curriculum Vitae

PREFILED DIRECT TESTIMONY
OF
JASON A. STRONG

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I. INTRODUCTION AND STATEMENT OF QUALIFICATIONS

Q. Please state your name and business address?

A. My name is Jason A. Strong. My business address is 20701 Cooperative Way, Dulles, VA 20166.

Q. What is your present occupation?

A. I am employed as the Director of Regulatory Affairs at the National Rural Utilities Cooperative Finance Corporation (CFC).

Q. What is CFC?

A. CFC was incorporated as a private, not-for-profit cooperative association under the laws of the District of Columbia in April 1969. The principal purpose of CFC is to provide its members with a dependable source of low cost capital and state-of-the-art financial products and services. CFC provides its members with a source of financing to supplement the loan programs from the Rural Utilities Service (RUS) of the United States Department of Agriculture. CFC will also lend 100% of the loan requirement for those members electing not to borrow from the RUS. CFC is owned by and makes loans primarily to its rural utility system members to enable them to acquire, construct and operate electric distribution, generation, transmission and related facilities, as well as access to emergency lines of credit so power can be restored quickly after natural disasters. CFC has approximately 900 members, including 831 distribution and 62 generation and transmission cooperatives operating in 49 states and four U.S. territories.[1]

Q. What are your duties in your current position?

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[1] WEC is a member of CFC and has long term loans from CFC totaling approximately $13,883,593 outstanding as of December 31, 2018.

A. I lead and direct staff in providing federal and state regulatory expertise, innovative and effective electric rate design and financial analysis training and education to CFC members and internal stakeholders. Specifically, my duties with CFC are to lead a team of utility consultants and rate analysts in providing assistance to member cooperatives in, among other things, areas of regulatory accounting, rate of return, revenue requirement determinations, cost of service and wholesale and retail rate design, tariff and rate administration, and other regulatory issues. I am also responsible for certain member engagements requiring assistance with regulatory issues before the Federal Energy Regulatory Commission (FERC) and state regulatory commissions in instances where those electric cooperatives are subject to regulation.

Q. Please describe your educational background.

A. I received the degree of Bachelor of Science in Economics from Illinois State University, Normal, Illinois, in May 2000. I also received the degree of Master of Science in Applied Economics with a Sequence in Electricity, Natural Gas and Telecommunications Economics from Illinois State University in December 2004.

Q. Please describe your professional experience?

A. I have over 15 years of experience in the electric utility industry in economic, rate and regulatory-related matters. As described above, I currently lead a team providing federal and state regulatory expertise and solutions to CFC members and internal stakeholders. I provide rate design and cost-of-service, regulatory, operational and managerial consulting services, and direct staff members in also performing these functions for our membership.

Additionally, I advise CFC and its members on emerging energy industry and regulatory initiatives.

Prior to joining CFC in 2017, I was employed by the FERC from 2005 through 2016 as an Economist in the Office of Energy Market Regulation, formerly the Office of Markets, Tariffs and Rates. During my tenure at the FERC, I led and directed inter-disciplinary teams in efforts concerning Commission regulations and policies and advised the Chairman, Commissioners and key-decision makers in matters involving rate design and cost-of-service, cost allocation methods, regional transmission organization auctions, capacity markets, transmission planning processes, and integration of diverse energy sources and new emerging technologies into the marketplace. I was instrumental in leading Order No. 890 and Order No. 1000 transmission planning compliance efforts. During my tenure with the FERC, I prepared or supervised the preparation of Commission orders recommending acceptance, rejection, deficiency, or investigation in hundreds of cases in matters concerning open access transmission service and FERC's Order Nos. 888, 889, 890, 2000 and 679 and other FERC accounting guidance and rulemakings. Prior to FERC, I worked for Exelon Corporation in the Energy Acquisition Division in 2004. A more comprehensive history of my experience is contained in Exhibit WEC 14-JAS-5.

Q. Please summarize your experience testifying before regulatory bodies and courts on utility-related matters.

A. During my tenure at the FERC, I was assigned to the Commission's advisory staff and, therefore, was precluded from testifying in evidentiary proceedings before FERC

Administrative Law Judges. However, while at the FERC, I presented cases publicly to the FERC Commissioners at their monthly public meetings and was the technical contact for the Commission in numerous cases. I also spoke to the media on numerous occasions and led several technical conferences and proceedings. During my tenure at CFC, I have represented and/or am presently preparing to represent numerous electric utility members before several State Public Utility Commissions regarding, among other things, revenue requirements, rate of return, and cost of service studies and design of electric tariff rates.

Q. Have you conducted cost of service studies and developed rates for electric cooperatives?

A. Yes, since being employed by CFC, I have conducted or supervised approximately 80 regulatory engagements for electric cooperative members including, among other areas of consultancy, revenue requirement studies, cost of service studies and rate design. In addition to conducting and reviewing cost of service studies, I've been instrumental in leading CFC's rate design efforts and have worked with member-cooperatives in emerging areas in designing residential demand charges, electric vehicle charging, and energy and demand time-of-use rates.

II. PURPOSE OF TESTIMONY

Q. For whom are you testifying?

A. I am testifying on behalf of WEC.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain and support the fully allocated, embedded cost of service study for the adjusted rate year ending December 31, 2019 that is used to support WEC's proposed rate design. In addition, I explain and support the rate design mechanics as it relates to the results of the cost of service study findings. The proposed cost of service study and rate design mechanics align with the WEC Exhibits supporting the recent 5.49% Vermont Public Utility Commission (Commission)-approved rate increase in Case No. 18-3959-TF (Case No. 18-3959-TF). Witness Patricia Richards, General Manager of WEC, provides testimony outlining the justification and policy drivers behind proposing certain elements of the rate-redesign proposal, including proposed revision to the residential base load block from 200 kWh to 100 kWh.

Q. Please describe the organization of your Direct Testimony.

A. First I will discuss the purpose of developing embedded cost of service studies and the goals that are sought through these analyses. I will also outline the basic processes involved in developing a cost of service study.

Next I will describe the cost of service study, included with my Prefiled Direct Testimony as WEC 10-JAS-1, in which WEC electric utility system costs are allocated and assigned to WEC's various customer classes.

The remaining exhibits presented with my testimony are organized as follows:

WEC 11-JAS-2 provides the cost of service study cost-based rates;

WEC 12-JAS-3 provides the mechanics of the proposed rate design;

WEC 13-JAS-4 provides the incremental cost analysis; and

WEC 14-JAS-5 provides my professional experience.

III. COST OF SERVICE STUDY (COSS)

Q. What is the revenue requirement used in your study?

A. I used WEC's current authorized revenue requirement which was approved by the Commission in Case No. 18-3959-TF. In that case, the Commission approved an overall revenue requirement increase of $801,169 which equates to an overall percentage increase of 5.49%. The rate increase was initially applied equally to each member class by 5.49%.

Q. Was the COSS prepared by you or under your direct supervision?

A. Yes.

Q. Has WEC or other Vermont electric cooperatives filed this COSS model in previous rate cases before the Commission?

A. Yes, this particular cost of service model was filed and accepted in Docket No. 7120 and Tariff Filing Nos. 7798 and 7798.

Q. Are there any differences between this embedded cost of service study and that included in the docket and tariff filings previously mentioned?

A. There are no mechanical differences. However, there is an additional analysis that has been historically requested by the Commission and the Vermont Department of Public Service (Department) in the form of an incremental cost analysis. An incremental cost analysis was also performed and the results validated the results of the embedded cost of service study. The incremental cost analysis is included as Exhibit WEC 13-JAS-4.

Q. Please summarize the purpose of performing embedded cost of service analyses.

A. Cost of service analyses are conducted to assign and allocate electric utility rate base, operating expenses and return (margins) to its customer classes based upon the principle of cost causation. Elements of a cost of service are directly assigned when cost causation is traceable to a particular jurisdiction or customer class. Costs that are not directly assigned are allocated in a manner that reflects how the costs are incurred by the electric utility on the basis of cost causation.

Q. What is the primary objective of the cost of service study you are presenting?

A. The primary objective of a cost of service study is to present a reasonable representation of an electric utility's costs during the test period among its customer classes. The cost of service study included with my Prefiled Direct Testimony in Exhibit WEC 10-JAS-1 provides a view of WEC's rates of return for its operations for each of its customer classes during the test period. These rates of return serve as an important guide in the assessment of the customer class to electric utility's overall earned rate of return and in the apportionment of necessary revenue changes in rate design.

Q. Please summarize the key processes involved in the cost of service study analysis.

A. Three basic steps are required to properly apportion rate base, operating expenses and return (margins) responsibilities to customer classes by: (1) functionalization; (2) classification; and (3) allocation.

Q. Please generally describe cost functionalization.

A. The functionalization of costs is the process of dividing rate base and operating expense elements of the cost of service into functional categories as related to the operations of the electric utility including, among others, generation, transmission and distribution.

Distribution functional costs can be divided into a number of functions, including common-use costs (general and intangible-related costs). The functional assignments of electric plant in service are designated by the Rural Utilities Service chart of accounts.[2] Descriptions of these accounts can be found in the description columns of WEC 10-JAS-1.

Q. Please generally describe cost classification.

A. Cost classification is the process of dividing functionalized rate base and operating expense elements into customer, demand and energy-related components based upon the principles of cost causation.

Q. Please generally describe cost allocation.

A. Cost allocation is the process of allocating costs to customer classes based upon cost causation. Direct assignments are made when possible for costs that are related to investments or expenses that serve only a particular customer or group of customers. The remaining costs are allocated based upon a method that reflects how costs are imposed on the electric utility's system. The cost of service study analysis assigns costs to each rate classification in relationship to the cost-causing factors of customers, demand and energy. The fundamental principle underlying the cost allocation process is that costs should be attributed to the particular customer group(s) that causes the utility to incur such costs. Appropriately allocated costs then provide a basis to derive class rate of return results and

[2] The Rural Utilities Service (RUS) Chart of Accounts (Title 7 of the Code of Federal Regulations (CFR), part 1767. The RUS Chart of Accounts is closely aligned with the Federal Energy Regulatory Commission Chart of Accounts (18 CFR).

class revenue targets, and ultimately is an important guide in designing the rates charged to each customer class.

Q. What method did you employ in preparing this cost of service study?

A. I used a fully distributed cost allocation methodology based on a return on rate base model. Importantly, I employed methods, practices and procedures commonly accepted in the electric utility industry that are outlined and prescribed in the FERC and National Association of Regulatory Utility Commissioners (NARUC) manuals.

Q. What test year did you use for this cost of service study?

A. The test year was the adjusted rate year ending December 31, 2019, as established by WEC for Case No. 18-3959-TF.

Q. What is the source of your test year data?

A. Test year data came directly from WEC billing and accounting records and through discussions with WEC management. In addition, test year data was sourced from WEC exhibits which were filed and accepted by the Commission in Case No. 18-3959-TF.

Q. How have you divided the members into classifications?

A. I divided the members based on WEC's rate schedules. The customer classes included in the cost of service study include: Residential; Small Commercial; Large Power; and Lighting.[3]

Q. Do these classes and rates conform to the proposed electric rate tariffs?

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[3] While five rate classes are offered by WEC, only four have active members. The time of day rate is not currently used by any WEC member and, therefore, is not included in the cost of service study.

A. Yes. The classes are unchanged in name from the current to the proposed structure.

Q. What general categories of cost were examined and considered in the development of the cost of service study?

A. As described above, an analysis was made of all elements of cost as defined by the FERC Uniform System of Accounts [and the RUS Uniform System of Accounts],[4] including cooperative member investment (rate base) and operating expenses (cost of service) and return (margins) for the purpose of allocating these items to the customer classes. To achieve this allocation we begin by functionalizing and classifying costs.

Q. Please explain what you mean.

A. In order to make the appropriate assignment of costs to the appropriate class of customer, it is necessary to first group the costs according to their function. The functions used in the cost of service study were production, transmission, distribution, and other costs. The next step was to classify the costs. Costs are classified as customer-related, energy-related, or demand-related.

Q. What do you mean by customer-related, demand-related and energy-related?

A. Customer-related costs are those costs necessary to provide electric service to the customer independent of any usage by the customer. Some examples of these costs include meter reading, customer accounting, billing and some investment in plant equipment such as the meter and service line, facilities that are all necessary to make

[4] See *supra* n.2.

service available and be connected to overall distribution system. Portions of the distribution facility are separated between the customer costs and the demand costs. Demand-related costs relate to the investment and expenses associated with WEC's facilities necessary to supply the customer's full load requirements throughout the year. The majority of demand-related costs consist of generation, transmission plant and the non-customer portion of distribution plant.

Energy-related costs are directly related to the generation and consumption of energy and consist of such things as fuel, variable O&M from generation and purchase power provider bills.

The functionalized rate base and operating expense items are then further separated, or classified, based upon design or operating characteristics that cause the costs to be incurred.

Q. After the above classification of plant investment into customer, demand and energy-related components, please describe the cost allocation process.

A. The third step in the process is cost allocation is to apportion the functionalized and classified costs to the particular customer classes. WEC's costs that serve only a particular customer class are directly assigned to that class e.g., lighting. The remaining costs are allocated to the customer groups based on a method that is considered most consistent with cost causation. The next step was to allocate each of the three categories of cost to each customer class utilizing allocation factors appropriate for each of the above categories of cost.

Q. How are the allocation factors based on a method that is considered most consistent with cost causation generally determined?

A. Costs are evaluated to determine the cause driving the cost to be incurred and to establish an allocation method that best distributes the cost based on that causation. Customer-related costs are generally allocated on the basis of the number of customers within each class. Data for the development of the customer-related allocation factors came from consultation with WEC staff and the billing and accounting records. Some of the customer-related accounts were allocated based on a weighted number of customers to reflect the weighting associated with serving those customers.

Energy-related allocation factors were derived on the basis of each customer classes' respective energy (kWh) requirements. Sales (kWh) to each customer class were developed in consultation with WEC staff and the billing and accounting records.

Q. How are demand allocation factors generally determined?

A. The data necessary to develop class demand allocation factors were derived in consultation with WEC staff and from the WEC's load research data. This load research data was utilized to develop production, transmission and purchased power capacity-related allocators based on member's coincident loads within each class. This load research data was also utilized to develop distribution plant allocators based on customer's non-coincident loads within each class.

Q. Are any costs assigned directly to classes?

A. No, except for lighting. WEC accounting records do not specifically identify costs directly attributable to a particular class of member(s).

Q. Please further describe how this specific cost of service model was developed for WEC.

A. The cost of service study model directly assigns or allocates each element of rate base, operating expenses and return (margins) to the respective customer class. The cost of service study model is a cost matrix with the Total Company component reflected in the initial column and the customer classes listed horizontally in columns thereafter. The cost of service study model starts with the rate base detail including each plant account and continues with the remaining items of rate base, operating expenses, taxes and return (margins). The cost of service study model also contains an important column labeled "CONTROL ALL" and "OUT". These two columns contain an acronym identifying the allocation factor used to allocate the particular Total Company cost to the customer classes. The cost of service study model uses both internally developed and external allocators. Further, the external allocators have been developed using data outside the cost of service study model in consultation with WEC staff, billing and accounting records.

Q. How were the Customer Allocation Factors used in WEC's COSS?

A. The Customer Allocation Factors (identified as C1A in the model) are based on the number of customers in each rate classification. These allocation factors are used to allocate customer specific costs, as described above.

Q. How were the Weighted Customer Allocation Factors used in WEC's COSS?

A. The Weighted Customer Allocation Factor (identified as C2A in the model) are weighted based upon the number of members in each rate classification, the differences in, among

other things, the costs for the meters among the rate classifications, and the differences in the estimated costs of processing bills among the rate classifications.

Q. How were the Demand Allocation Factors used in WEC's COSS?

A. The Demand Allocation Factors (identified as D1A and D1B in the model) are based on the average 12 monthly coincident peak (CP) demands for each rate classification. These CP demand values were calculated in consultation with WEC staff.

Q. How were the Primary and Secondary Demand Allocation Factors developed and used in WEC's COSS?

A. The Primary and Secondary Demand Allocation Factors (identified as D2A, D3A and D4A in the model) are based on the average 12 monthly non-coincident peak (NCP) demands. These allocation factors are used to allocate the distribution plant related to the primary and secondary lines to the individual customer classifications. Typically, members taking service at higher voltage levels (primary) do not use any part of the lower voltage systems (secondary), and therefore are not assigned any of the costs of the lower voltage systems. These NCP demand values were calculated in consultation with WEC staff.

Q. How were the Energy Allocation Factors developed and used in WEC's COSS?

A. The Energy Allocation Factor (identified as E1A in the model) are based on the kWh purchased and kWh generated for each rate classification. These kWh values were based on the kWh sales provided by WEC with a proportionate share of the line losses added, based on kWh purchased versus sold, to each rate classification.

Q. How have you allocated Production Plant?

A. Production Plant was allocated using allocation factor D1A, which is the 12 CP average kW demand for power produced.

Q. How have you allocated Transmission Plant?

A. The Transmission Plant was allocated using allocation factor D1B, which is the 12 CP average kW demand for power transmitted.

Q. How have you allocated the Distribution Plant?

A. The costs associated with the customer component were determined using the minimize system method. The minimum system method is premised on the concept that there is a minimum-size distribution system that is capable of serving all members the minimum requirements. For example, certain costs exist simply to attach a customer to the distribution system, e.g., poles are installed and conductor is strung to the customer, along with a transformer, in order for a utility to be able to transmit electricity from the point of production or purchase to the point of customer connection, or vice versa, to provide a customer with service. The minimum system method is presented in the NARUC cost allocation manual and asserts that the minimum-size method of determining the demand and customer components as a reasonable approach for allocating these costs (pgs. 87 & 90). Since the costs of this hypothetical system are driven by the number of members and not by demand, these costs are considered to be customer costs. The minimum system study is utilized to create demand and customer classification percentages for the investment and costs in distribution poles, towers, and fixtures (Account 364), overhead conductor (Account 365), underground conduit (Account 366), underground conductor (Account 367), and transformers (Account 368)

based on the cost of the minimum unit required or most commonly utilized unit to provide service and the total number of units serving the system.

After the costs associated with the customer component of the distribution plant are calculated, the total system costs are allocated into the individual rate classifications based upon the weighted average number of members in each rate classification.

Q. How did you allocate the Primary Demand and Secondary Demand components of the distribution plant?

A. The dollars associated with the Primary Demand component and with the Secondary Demand component were allocated based on the number of miles of primary distribution line and the number of miles of secondary distribution line.

Q. What method did you use to allocate Meters?

A. Meter costs are recorded to Account 370 and are also considered customer-related costs and are allocated based on the number of customers by customer class.

Q. How were Depreciation and Operation and Maintenance (O&M) Expenses allocated?

A. Depreciation and O&M expenses for production, transmission, and distribution plant were allocated to customer classes following the same criteria as plant. Customer Accounts Expenses, Customer Services and Information Expenses, and Sales Expenses are allocated based on the labor allocator. Administrative & General expenses were primarily allocated on the labor allocator.

Q. How were the wages and salaries allocated?

A. The wages and salaries were allocated between the production, transmission, distribution and general functions based upon the actual amount of the wages and salaries that WEC has recorded to each function.

Q. What is the next step after the allocations are applied?

A. The next step is to determine the relative return on rate base for each of the classes in the cost of service study. The ratio of class revenues less expenses (net operating income) divided by class rate base will indicate the proportionate contribution to the total rate of return being earned by WEC that is attributable to a particular class.

Q. What else should be known about the COSS model and the results?

A. The results of the cost of service study will also vary if you apply different allocation factors within the cost of service study. By applying different methods to the allocation process, you can change the outcome of the cost of service study. I utilized allocation methods, practices and techniques consistent with the electric utility industry and as outlined in the FERC and NARUC manuals.

Q. What were the results of your study?

A. The cost of service study indicated that the different rate classifications yielded different overall rates of return. The cost of service study also indicated that differing rate adjustments could be made to each rate classification. The complete cost of service study is included in Exhibit WEC 10-JAS-1. Below is a summary of the results.

Comparison Between COSS and Existing Revenue Allocation

Line No.	Class	COSS Revenue Allocation	Existing Revenue Allocation	Difference	Percent Difference
1	Residential	$13,700,969	$13,931,596	-$230,627	-1.66%
2	Small Commercial	$1,162,771	$1,156,958	$5,813	0.50%
3	Large Power	$809,272	$578,793	$230,479	39.82%
4	Lighting	$79,447	$85,111	-$5,664	-6.66%
5	--	--	--	--	--
6	--	--	--	--	--
7	Electric Revenues	$15,752,458	$15,752,458	$0	0.00%
8	Gross Receipts Taxes	$168,376	$168,376	--	
9	Misc. Revenues	$2,170,254	$2,170,254	--	
10	Operating Revenue & Patronage Capital	$18,091,089	$18,091,088	$0	0.00%

Q. What general conclusion can be made from these results?

A. The results of the cost of service study show that each class of customers is relatively close to recovering the cost of service to that class and also provide a return on member investment (margins), with the exception of Large Power i.e., schools and farms. The results show that (1) Residential revenues are slightly above their cost of service; (2) Small Commercial revenues are slightly below their cost of service; (3) Large Power revenues are below their cost of service; and (4) Lighting revenues are slightly above their cost of service.

Q. Please describe the COSS cost-based rates in Exhibit WEC 11-JAS-2.

A. The cost-based rates by rate classification flow from the cost of service study model and indicate by class of customer the unit cost of customer-related, demand-related and energy-related costs. These cost-based rates are particularly useful in designing rates and aligning cost attributes with recovery.

Q. Please describe those results.

A. A summary table is provided below. The results indicate that fixed costs, particularly customer-related, could be higher than what is currently being recovered through currently effective tariff rates.

Cost of Service Study Cost-Based Rates

Line No.	Class	Customer Charge	Demand Charge	Energy Charge
1	Residential	$29.40	$63.35	$0.04025
2	Small Commercial	$44.00	$62.86	$0.04035
3	Large Power	$311.41	$54.29	$0.03844
4	Lighting	$18.20	$21.64	$0.04034
5	--	--	--	--
6	--	--	--	--

Q. Is WEC proposing any changes to the class revenues collected based on the results of the COSS?

A. No, WEC is not proposing to make changes to the class revenue levels. However, WEC is proposing revenue-neutral rate changes. WEC is proposing the following:

1. Apply no decrease to Residential;
2. Apply no increase to Small Commercial;
3. Apply no increase to Large Power;
4. Apply no decrease to Lighting class (unmetered);
5. Apply the increase equally to the remaining classes, meaning keep constant revenues indicated by class in Case No. 18-3959-TF (i.e., revenue neutral rate change);
6. Increase the customer charges for Residential, Small Commercial and Large Power to better reflect the full customer-related cost identified by the cost of service study; and

7. Adjust the Residential base load block from 200 kWh to 100 kWh;

Application of these proposals to the electric rates is discussed further in the rate design section of this testimony. Witness Patricia Richards, CEO of WEC, sponsors testimony outlining the justification and policy drivers behind proposing certain rate design components.

IV. RATE DESIGN

Q. Are you sponsoring the electric tariffs filed in this case?

A. I am sponsoring the exhibit outlining the mechanics of the rate design. See Exhibit WEC 12-JAS-3. As stated above, Witness Patricia Richards, General Manager of WEC, sponsors testimony outlining the justification and policy drivers behind proposing certain rate design components.

Q. Please summarize the proposed rate design for the electric tariffs.

A. All proposed rate design changes are intended to result in a revenue neutral outcome based on the equally applied 5.49% increase to revenues approved by the Commission in Case No. 18-3959-TF. Exhibit WEC 12-JAS-3 outlines the mechanics of the proposed revenue neutral proposed rate changes.

Q. How did you then determine the billing determinants for the rate design?

A. The billing determinants used in the rate design were provided in Exhibit S17 "Effect on Revenue" that was filed and accepted by the Commission in Case No. 18-3959-TF.

Q. How did WEC go about formulating this rate design proposal?

A. Please refer to the testimony of Witness Patricia Richards.

Q. You mention above that WEC proposes to increase the customer charge. Please describe why it is appropriate to align costs with the cause of cost?

A. The current rates are configured such that a high percentage of revenue is recovered via the volumetric energy charge. However, WEC has a large amount of costs that are fixed and do not fluctuate with energy usage. WEC's proposal to raise the customer charge makes gradual movement toward correcting this imbalance between cost causation and recovery.

Q. Please describe why it is appropriate to align costs with the cause of the cost?

A. Cost recovery and cost causation alignment is used to keep rates equitable and avoid distortion within the rate class. When cost elements are out of alignment, it is likely that costs will not be properly recovered through the rate. Additionally, if cost recovery through the energy charge is insufficient to cover fixed costs, it could render the electric utility unable to pay its fixed costs, and jeopardize its ability to adequately collect operating revenue to support operating expenses and the return (margins). For example, if the rate collects significant proportions of revenue through the volumetric charge, reductions in usage will cause an immediate under-recovery for that rate for the electric utility. Over time, within a customer class, when some customers reduce usage and others do not, the customer with the remaining usage ends up covering the fixed costs for the customer that avoided the associated rates or charges, despite the fact that both customers benefited from the infrastructure investment that that fixed charge is designed to recover.

Price distortion is the other result of a misaligned rate. Distortion occurs when the price does not reflect the cost and results in an incorrect price signal being sent to the customer. In the example where a rate collects significant proportions of revenue through the volumetric charge, a customer might perceive that the "per kWh" value of energy is higher than it truly is. This is highlighted when you compare the energy rate paid by residential customers versus commercial & industrial customers. Comparison of the rates paid generally will show that the per kWh charge paid by a residential customer is significantly higher than that paid by a commercial & industrial customer. A primary contributor to that differential is the fact that many fixed costs, normally recovered through customer, facility, or demand charges applied to the commercial and industrial customer are combined into the energy price for residential customers.

Q. How do rates get out of alignment?

A. Misalignment is largely the result of pricing with limited numbers of rate components combined with other policy considerations overriding any alignment desire. For residential customers, there are only two rate components in the structure, the customer charge and the energy charge. All revenue recovery is accomplished through these two components. By contrast, traditional commercial and industrial rates have up to four components, including the customer charge, facility charge, demand charge, and energy charge. In this design, the customer, facility, and demand charges carry their representative portions of the fixed charge. Under the limited components of the residential rate structure, the choice is between the customer charge and/or the energy charge. It is in this decision where policy consideration makes its impact. There has

been a long tradition of maintaining relatively low customer charges; as a result, nearly all of the residential fixed costs have been included in the energy charge.

Q. What is the risk associated with this misalignment?

A. Reductions in usage, driven by reduced customer growth, energy efficiency, or even customer self-generation, result in under-recovery of costs. Growth would have compensated or completely covered this shortfall in the past. With the accelerating deployment of initiatives that directly impact customer growth, it is becoming increasingly apparent that this risk of immediate under recovery is quite significant. On the customer side, the problem with alignment can occur for multiple reasons but is most clearly shown through the implementation of distributed generation. When a customer deploys distributed generation at their location, they are often able to avoid most, if not all of their annual energy bill. The revenues originally received from that customer are now avoided due to distributed generation. In future rate cases, those costs are spread to the remaining customer usage and borne by customers without distributed generation.

Q. Does WEC's proposal totally achieve proper alignment of fixed/variable costs aligned in rates?

A. No, nor is that always achievable for multiple reasons. The impact of such alignment could be too much to bear for customers billed under the misaligned rates for so long nor is complete alignment always a practical result. The goal to achieve is to make gradual progress toward a more balanced alignment of cost recovery with cost causation. WEC's proposal to increase the customer charge balances cost recovery and cost causation.

IV. CONCLUSIONS

Q. Are the rates proposed by WEC consistent with Commission precedent and are they just and reasonable and not unduly discriminatory?

A. In my opinion, yes. The results of the cost of service study provide a reasonable basis for setting new redesigned rates. Both the Commission and Department have recommended over the years that rates reflect fully allocated cost of service, by class and by function. WEC's proposed rates collect the embedded revenue requirement approved by the Commission in Case No. 18-3959-TF by class identified in the cost of service study and allocated costs by function in the appropriate rates. Further, WEC's rate proposal to raise the customer charge are justified based on the results of the cost of service study and supported by the incremental cost analysis.

Q. Does this conclude your testimony at this time?

A. Yes.