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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. EA-2022-0245

DIRECT TESTIMONY

OF

STEVEN M. WILLS

ON

BEHALF OF

UNION ELECTRIC COMPANY

D/B/A AMEREN MISSOURI

**St. Louis, Missouri
July 2022**

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I. INTRODUCTION

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Q. Please state your name and business address.

A. Steven M. Wills, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company"), One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. What is your position with Ameren Missouri?

A. I am the Director, Rates & Analysis.

Q. Please describe your educational background and employment experience.

A. I received a Bachelor of Music degree from the University of Missouri-Columbia in 1996. I subsequently earned a Master of Music degree from Rice University in 1998, then a Master of Business Administration ("M.B.A.") degree with an emphasis in Economics from St. Louis University in 2002. While pursuing my M.B.A., I interned at Ameren Energy in the Pricing and Analysis Group. Following completion of my M.B.A. in May 2002, I was hired by Laclede Gas Company as a Senior Analyst in its Financial Services Department. In this role, I assisted the Manager of Financial Services in coordinating all financial aspects of rate cases, regulatory filings, rating agency studies, and numerous other projects.

1 In June 2004, I joined Ameren Services as a Forecasting Specialist. In this role, I
2 developed forecasting models and systems that supported the Ameren operating
3 companies' involvement in the Midwest Independent Transmission System Operator,
4 Inc.'s ("MISO")¹ Day 2 Energy Markets. In November 2005, I moved into the Corporate
5 Analysis Department of Ameren Services, where I was responsible for performing load
6 research activities, electric and gas sales forecasts, and assisting with weather
7 normalization for rate cases. In January 2007, I accepted a role I briefly held with Ameren
8 Energy Marketing Company as an Asset and Trading Optimization Specialist before
9 returning to Ameren Services as a Senior Commercial Transactions Analyst in July 2007.
10 I was subsequently promoted to the position of Manager, Quantitative Analytics, where I
11 was responsible for overseeing load research, forecasting and weather normalization
12 activities, as well as developing prices for structured wholesale transactions.

13 In April 2015, I accepted a position with Ameren Illinois as its Director, Rates &
14 Analysis. In this role I was responsible for the group that performed Class Cost of Service,
15 revenue allocation and rate design activities for Ameren Illinois, as well as maintained and
16 administered that company's tariffs and riders. In December 2016, I accepted a position
17 with the same title at Ameren Missouri.

18 **II. PURPOSE OF TESTIMONY**

19 **Q. What is the purpose of your direct testimony?**

20 A. The purpose of my direct testimony is to describe certain elements of a new,
21 voluntary renewable energy subscription program for large commercial and industrial ("C&I")
22 customers, along with government accounts, called the Renewable Solutions Program

¹ Now known as the Midcontinent Independent System Operator, Inc. ("MISO").

1 ("Program" or "Renewable Solutions"). My testimony focuses on the rationale for pivoting
2 to this program from the previously approved Renewable Choice program, the pricing
3 structure for the Program, as well as certain other key tariff provisions that govern how the
4 Program will operate and customers will engage with it.

5 **III. CONTRASTING THE RENEWABLE CHOICE PROGRAM**
6 **AND THE RENEWABLE SOLUTIONS PROGRAM**

7 **Q. The Company previously proposed, and the Commission eventually**
8 **approved, a voluntary C&I subscription-based renewable energy program called**
9 **Renewable Choice. Please provide some background on that program.**

10 A. I was involved in the 2018 filing of the Renewable Choice program in File
11 No. ET-2018-0063. Renewable Choice was designed to give large C&I customers an
12 option to voluntarily subscribe to receive up to 100% of their annual usage from a new
13 wind resource to be developed for the program. Subscribers would pay a per-kilowatt-hour
14 ("kWh") charge for their share of all resource output and would receive a per-kWh credit
15 based on the market revenues realized from injecting that energy into regional wholesale
16 energy markets.

17 Renewable Choice was the subject of extensive negotiations with the Missouri
18 Public Service Commission Staff and other intervening parties, and eventually resulted in
19 a Stipulation and Agreement that recommended the terms on which the program should go
20 forward. The Commission ultimately approved that stipulation and the associated
21 compliance tariffs to create the Renewable Choice program.

22 The Renewable Choice program, however, has not resulted in any renewable
23 projects or subscribers since that time. While the program was innovative and well-

1 conceived in many ways, it had a couple of design issues that became obstacles to
2 completing projects under it. Those issues were key learnings that the Company took into
3 consideration in developing the current Renewable Solutions Program proposal.

4 **Q. What were those issues, and how does Renewable Solutions address**
5 **them?**

6 A. The Renewable Choice subscription process was designed to rely on non-
7 binding customer commitments as the basis for the development of a specific program
8 resource. A "not-to-exceed" subscription price applicable to that program resource was
9 intended to be established prior to customers making firm participation commitments.
10 Experience now shows us that the uncertainty of final participation levels due to the non-
11 binding nature of those commitments meant that either the agreement to acquire the
12 resource had to have significant contingencies built into it, or there would be a significant
13 risk of unsubscribed capacity being built. Neither of these possibilities was conducive to
14 executing projects under the program with favorable economic terms. Consequently, the
15 Company was unable to secure any projects to serve the program.

16 The concept of the Renewable Solutions Program changed this dynamic in a couple
17 of ways. First, Renewable Solutions is grounded in the Company's Integrated Resource
18 Plan ("IRP"). The resource(s) to be constructed for the Program are resources that are
19 needed to execute the transition to greater reliance on renewable energy generation, as most
20 recently outlined in the Company's June 22, 2022 filing of a change to its Preferred
21 Resource Plan. Since constructing the resource furthers the generation transition, the
22 Company was able to negotiate for resources with a firm commitment to ultimately
23 building/acquiring those resources. As discussed in the direct testimony of Company

1 witness Lindsey Forsberg, approval of the Program and then using the Boomtown solar
2 facility to support Phase I enhances the value of the facility to our customers.

3 The second way Renewable Solutions changed the dynamic was to start the
4 Program with firm customer demand under binding commitments. The customer
5 commitments to participate in the Program, which are already paired with a specific project
6 that is also under contract with a defined cost framework, give more certainty of the
7 eventual subscription of the Program resource(s) than could be achieved under the
8 Renewable Choice tariff framework. The filing of this Program is supported by those
9 customer commitments to participate if the Commission approves the Program and the
10 Certificate of Convenience and Necessity ("CCN") to build the Boomtown Project. The
11 customer agreements and the Project agreements are all contingent upon Commission
12 approval of the Program and CCN in this docket.

13 **Q. What other issues from Renewable Choice were considered in the**
14 **Renewable Solutions program design?**

15 A. The second issue with the original Renewable Choice program that hindered
16 the Company's ability to move forward with projects was the pricing model. As I described
17 above, subscribers were to receive a program credit that was derived from the market prices
18 applicable to the energy produced by the program resource. Feedback we received from
19 potential customers suggested they preferred program subscriptions not tied directly to
20 market prices

21 Renewable Solutions addresses this issue by providing a fixed rate for the credit
22 available to subscribers that is not tied directly to market prices, as I will discuss in more
23 detail later in my testimony. The pricing model of Renewable Solutions is designed to give

1 subscribing customers more certainty on pricing, while reasonably balancing the allocation
2 of the benefits that arise from the operation and existence of Program resources between
3 subscribers and non-subscribers, who also benefit from the resource's contribution to the
4 renewable generation transition.

5 **IV. RENEWABLE SOLUTIONS PRICING PRINCIPLES**

6 **Q. Please provide an overview of the pricing structure of the Program.**

7 A. Renewable Solutions is proposed to be available to customers served under
8 the Company's existing service classifications 3(M) – Large General Service, 4(M) – Small
9 Primary Service, and 11(M) – Large Primary Service, and is designed as a rider that sits on
10 top of the existing base rate structure of those tariffs. Customers that choose to subscribe
11 to the Program will still be subject to all of the charges associated with those base rate
12 tariffs. The Program features a charge and a credit that will be added to the bill on top of
13 those existing charges. In this regard, it is similar to the Company's previously approved
14 Renewable Choice program.

15 The Program charge, called the Renewable Resource Charge, is structured as a
16 monthly capacity charge that is calculated using a rate that is stated as dollars per kilowatt
17 ("kW") of Program capacity that is dedicated to the subscribing customer. Because the
18 amount of such capacity is fixed contractually at the time the customer enrolls, this capacity
19 charge essentially becomes a fixed monthly Program charge² for the entire term of the
20 customer's subscription. However, the fixed charge is customized for each subscriber

² The fixed charge escalates annually over the term of the Program, but is defined up front for all Program years for each Phase of the Program, creating a predictable price for subscribers and a predictable revenue stream to cover costs of Program resources.

1 according to the amount of capacity required to meet their individual renewable energy
2 needs.

3 The monthly credit, referred to as the Renewable Benefits Credit, is based on a rate
4 that is stated in cents per kilowatt-hour ("kWh"), and is applied to the actual amount of
5 renewable energy that is generated by the subscriber's share of the assigned Program
6 resource's capacity in each month.

7 The rates that establish the Renewable Resource Charge and the Renewable
8 Benefits Credit are pre-determined for the entire 15-year term of the subscription for Phase
9 I. The same pricing structure will be utilized for any future phases of renewables under the
10 Program, but with the price levels determined specific to the resource(s) being added to the
11 Program and serving the customers that enroll in each phase.

12 **Q. How were the Renewable Resource Rate and Renewable Benefits**
13 **Credit established?**

14 A. The Company considered a number of factors in establishing each of these
15 rates (the charge rate and the credit rate) that I will describe further below, but also
16 evaluated the net bill that was expected to result from the application of the charge and
17 credit based on customer subscription levels and resource output levels. The ultimate goal
18 was to reach a balanced overall price point (net subscriber cost) that would be attractive
19 enough to result in potential subscribers committing to the Program while also ensuring
20 that their participation would contribute favorably to the economics of the resource for the
21 benefit of all customers.

22 The charge rate itself is primarily based on a snapshot of the expected cost of the
23 Phase 1 resource taken prior to the enrollment process. To be clear, the eventual resource

1 cost was not known with certainty at the time that the Company began enrolling customers
2 (and still is not fully known today, as Company witness Scott Wibbenmeyer describes in
3 his direct testimony). That is why an important part of the pricing process was evaluating
4 the net cost of subscription to customers to ensure that they would ultimately contribute
5 meaningful economic value to the Project for the benefit of non-subscribers.

6 However, the basic philosophy is that the charge reflects the costs associated with
7 the development and operation of Program resources for the duration of the term of their
8 subscription. The cost estimated for this process included consideration of the return on
9 and return of investment in the resources, as well as ongoing expenses.

10 **Q. Please explain the role of the Renewable Benefits Credit.**

11 A. Because subscribing customers are still paying their underlying tariff
12 charges, they are contributing revenues to cover the cost of existing (non-Program)
13 generation resources, in addition to the other costs reflected in the Company's revenue
14 requirement, such as those associated with the transmission and distribution ("T&D")
15 system. As described above, subscribers will also pay a Renewable Resource Charge
16 intended to reflect the costs associated with Program generation resource(s) for the phase
17 to which they are assigned. As a result, these customers are in effect contributing revenues
18 to cover two discrete sources of energy production. The Renewable Benefits Credit
19 prevents the subscribers from effectively paying twice towards the costs of different
20 generation resources.

21 There are two key elements that went into the development of the concept of the
22 Renewable Benefits Rate used to determine the Renewable Benefits Credit. The first
23 element is an analysis of the existing base rate structure to determine what costs are

1 reflected in it that could reasonably be avoided by a customer that is subscribing to an
2 alternate source of energy production. This informs the level of credit needed in order for
3 the subscriber to effectively offset their payment of charges that cover traditional
4 generating resources that the subscriber is seeking to displace with the renewable resources
5 to which they are subscribing. As I will discuss further below, this analysis was based on
6 a review of the Company's class cost of service data from its most recent rate review (File
7 No. ER-2021-0240), and the methodology aligned with the manner in which the Company
8 also established the Facilities Charge for its Community Solar permanent program, which
9 was approved by the Commission in that case.

10 However, providing this credit that, in concept, relieves the subscriber from
11 covering some of the costs of the traditional generation would have the potential to shift
12 those costs of traditional generating resources to other, non-subscribing customers. Due to
13 the potential for this cost shift, the second step of analysis was to ensure that, after
14 consideration of those costs that may be avoided by subscribers through the application of
15 the Renewable Benefits Credit, subscribers still are expected to reduce the cost of the
16 resource for the benefit of all customers. In order to do this, the Company, as I described
17 at the beginning of the pricing discussion, evaluated net subscriber bills to verify that
18 subscribers were making a favorable economic contribution across a range of scenarios,
19 rather than potentially shifting costs onto non-subscribers.

1 **Q. How does this pricing structure compare to the pricing of the**
2 **Renewable Choice program previously approved by the Commission?**

3 A. At a high level, it has similarities to Renewable Choice, but there are also
4 key differences that I will highlight further below. The similarity between the two
5 programs' pricing paradigms is in the use of the charge and credit concept. Both programs
6 feature a program charge that is intended to reflect the costs attributable to the development
7 of resources for the program, and additional administrative costs associated with the
8 program. Both programs also provide an offsetting credit that is related to economic
9 benefits created by the program resources.

10 However, there are key differences between the charges and credits offered by the
11 two programs. The Renewable Resource Charge in the proposed Renewable Solutions
12 Program is, as described above, essentially a customized fixed charge for each subscriber
13 that is set for the term of their subscription. The revenue that will be generated from that
14 charge is known with a high degree of certainty once the customer commits to the Program.
15 The program charge in the Renewable Choice program was stated as a cents per kWh rate
16 that the subscriber paid for each kWh of renewable energy that the capacity dedicated to
17 them produced. Therefore, the Renewable Choice program had much more uncertainty
18 about whether the program revenues would cover the costs of the program resources
19 because those program revenues were dependent on actual production. Since renewable
20 generation is variable depending largely on weather conditions, this production-based
21 pricing model created significant volumetric uncertainty with respect to program revenues
22 covering program costs. Renewable Solutions' fixed charge structure eliminates the

1 uncertainty on the total amount subscribers will pay into the program, and thereby creates
2 a higher likelihood that Program costs will be covered by subscribers.

3 **Q. What differences exist in the structure of the subscriber credits**
4 **between Renewable Solutions and Renewable Choice?**

5 A. The credit in both programs is based on the actual volume of renewable
6 energy produced by program resources. In that regard, the programs are similar. And this
7 volumetric determination of subscriber credits helps insulate non-subscribers from
8 production risks associated with Program resource generation – i.e., if production is lower
9 than planned, the market revenues that benefit non-subscribers will be lower, but so will
10 the credits that go to subscribers. So, less market revenues may be available to non-
11 subscribers, but so too will there be fewer credits paid to subscribers, which will increase
12 the net contributions by subscriber that will accrue to the benefit of non-subscribers by
13 operation of the tracker that I will discuss later. So, the net effect on non-subscribers of
14 lower production is largely mitigated by increased subscriber payments to offset the
15 reduction in market energy revenues.

16 **Q. Does the balance of costs and benefits for subscribers created by the**
17 **Program structure better match the way customers typically engage with renewable**
18 **energy?**

19 A. Yes. Many customers' other opportunities to engage with renewable energy
20 are primarily related to owning their own generation – often behind their own meter,
21 offsetting the purchase of retail energy from their utility. The customer's cost for self-
22 developing renewables is largely fixed, based on the amount of renewable capacity
23 installed. This is similar in concept and economic consequence for the customer to the fixed

1 payment stream required of the subscriber under Renewable Solutions for the development
2 of sufficient capacity to meet their needs.

3 A customer investing in behind-the-meter renewable generation receives benefits
4 in direct proportion to the amount of energy produced by their facilities – and they receive
5 those benefits based on a predictable tariff rate at which they avoid purchasing retail
6 energy. Again, this is similar to the paradigm under Renewable Solutions, where the
7 customer receives benefits in proportion to actual production at a defined tariff rate.

8 **Q. Are there other utilities with voluntary renewables subscription**
9 **programs that have successfully employed a similar pricing model?**

10 A. Yes. Florida Power & Light Company ("FPL") offers a program that they
11 call "SolarTogether" to its customers. The Florida Public Service Commission approved
12 this FPL offering in 2020. SolarTogether features an almost identical rate structure to
13 Renewable Solutions – with a capacity charge (\$/kW) based on the amount of solar
14 capacity needed to meet customers' renewable energy needs, and a benefits credit
15 (cents/kWh) based on the actual production of the customers' subscribed share of program
16 capacity. This model has proven successful, as evidenced by FPL's ability to fully subscribe
17 a program with nearly 1,500 MW of renewable generation capacity.

18 **Q. Please describe in more detail the analysis that supported the**
19 **development of the Renewable Benefits Credit.**

20 A. As I mentioned previously, the conceptual starting point for the Renewable
21 Benefits Credit was in trying to determine the portion of the base rate – all of which the
22 subscriber continues to pay – that reflects the costs of the traditional generation resources
23 that the subscriber is transitioning away from with their election to subscribe to renewable

1 generation. The existing rate structure is largely guided by the Company's Class Cost of
2 Service Study ("CCOSS") performed for each general rate proceeding. For purposes of this
3 analysis, we utilized the CCOSS from the Company's most recently completed electric rate
4 review (File No. ER-2021-0240) to identify the potentially avoidable costs for Program
5 participants. The approach was similar to the use of the CCOSS information in File No.
6 ER-2021-0240 to inform the proposed "Facilities Charge" associated with the permanent
7 Community Solar program proposal that was included in that case.

8 In the CCOSS, the Company's revenue requirement goes through a process of
9 functionalization, classification, and allocation. Costs are first functionalized as
10 Distribution, Transmission, or Production costs based on which of these activities – that
11 are all reflected in the rates of a vertically integrated utility with bundled rates – gives rise
12 to the costs. Next, the costs are classified as being Customer-, Demand-, or Energy-related,
13 based on the driver of the costs (i.e., whether the cost is incurred simply to connect a
14 customer, to meet the highest level of demand they place on the system, or to meet their
15 total ongoing energy needs).

16 Customers that subscribe to the voluntary renewable Program are engaging with an
17 alternative source of energy *production*. A review of the functionalization and
18 classification of costs suggests that customers that subscribe to the Program have really not
19 changed their relationship at all with the costs functionalized as T&D – they still need to
20 use the existing T&D system in the exact same manner as they use it when being served
21 exclusively by traditional generation resources. So, the first step in the analysis was to
22 focus just on production costs that the customer could theoretically avoid by subscribing

1 to an alternate source of energy production (again, assuming that Program benefits are
2 sufficient to avoid shifting those costs to non-subscribing customers).

3 Next, we evaluated the classifications related to costs from the production function.
4 Production costs are classified as either energy-related (e.g., fuel that is burned in
5 proportion to the total energy produced) or demand-related (e.g., the capital cost of building
6 generating facilities). A customer that is subscribing to renewable resources to meet all of
7 their energy needs is, in effect, displacing all of their energy-related costs. Therefore, the
8 customer may reasonably expect to avoid the entirety of the production energy-related
9 costs to the extent that those costs will not end up being shifted to other customers. As
10 such, the production energy-related costs were included in the determination of the
11 Renewable Benefits Credit in their entirety

12 Demand-related production costs are a different story. The potential mix of solar
13 and wind resources developed for the Program³ – due to the intermittency of the generation
14 and the typical production patterns associated with each – cannot literally meet the
15 customers' production needs. The wind does not always blow, and the sun does not always
16 shine. The subscribing customer, therefore, at least as the electric system is currently
17 configured and operated, is quite literally dependent on the traditional generation resources
18 to meet their peak demand needs, and to provide balancing and reliability services to ensure
19 their load can be served electrically 24 hours a day, 7 days a week. As such, it is not
20 appropriate for the customer to avoid the entirety of the production demand-related costs
21 without any consideration of these balancing and reliability functions performed by the rest
22 of the fleet of generating resources.

³ The first Program phase is comprised of entirely solar resources, but future phases may include wind.

1 **Q. How did your Program analysis treat demand-related Production costs**
2 **then?**

3 A. In our CCOSS, demand-related production costs are typically allocated to
4 customer classes using what is called the 4 Non-Coincident Peak ("NCP") Average and
5 Excess ("A&E") method. This method inherently recognizes this reality that demand-
6 related Production costs are incurred both to meet total energy needs (the "Average" in
7 A&E), as well as the total class peak demand (the "Excess" demand that exceeds the
8 "Average"). As such, we identified those production demand-related costs that are
9 allocated in a manner that is associated with customer total energy needs (again, the
10 "Average" in 4 NCP A&E) and included those in the determination of the avoidable costs
11 to a customer that had subscribed to an alternative resource to meet their energy needs. The
12 production demand-related costs that reflect the portion of that class's demand captured by
13 the "Excess" part of the allocator are not included in the determination of the Renewable
14 Benefits Credit, in recognition of the subscribing customers' needs for capacity and
15 balancing resources.

16 **Q. What was the result of your analysis?**

17 A. We accumulated the production energy-related costs, and the production
18 demand-related costs that are associated with the "Average" portion of the A&E allocator
19 for the classes that are eligible for the Program, and divided them by the total annual energy
20 consumption of those classes to put those costs on a per-kWh basis in order to determine
21 an implicit cents/kWh of the base rate that reflects those costs that subscribing customers
22 might reasonably avoid by electing to receive service from alternative energy production

1 resources. Table 1 below shows this basic calculation of the potentially avoidable costs,
2 kWh, and implicit benefit credit rate by class.

3 **Table 1 - Calculation of Cost of Service-Implied Potentially Avoidable Costs**
4 **to Subscribers by Rate Class**

3(M)/4(M) Customer Classes		10,954,983,419		kWh Load
<i>Cost Category</i>	<i>Functionalized and Classified Embedded Cost of Service (000s)</i>	<i>Embedded Cost/kWh</i>	<i>% Included in RS Benefit Credit</i>	<i>Contribution to Benefit Rate</i>
Customer	\$18,762	\$0.0017	0%	\$0.0000
Production - Fixed	\$389,287	\$0.0355	65%	\$0.0231
Production - Variable	\$153,373	\$0.0140	100%	\$0.0140
Transmission -- Demand	\$61,455	\$0.0056	0%	\$0.0000
Distribution -- Demand	\$114,789	\$0.0105	0%	\$0.0000
Implied Credit Rate				\$0.0371
11(M) Customer Class		3,893,381,388		kWh Load
<i>Cost Category</i>	<i>Functionalized and Classified Embedded Cost of Service (000s)</i>	<i>Embedded Cost/kWh</i>	<i>% Included in RS Benefit Credit</i>	<i>Contribution to Benefit Rate</i>
Customer	\$831	\$0.0002	0%	\$0.0000
Production - Fixed	\$101,662	\$0.0261	80%	\$0.0208
Production - Variable	\$49,254	\$0.0127	100%	\$0.0127
Transmission -- Demand	\$17,657	\$0.0045	0%	\$0.0000
Distribution -- Demand	\$19,464	\$0.0050	0%	\$0.0000
Implied Credit Rate				\$0.0335

5 The initial Renewable Benefits Rate of \$0.0388 per kWh is derived from those
6 class-specific values. Because the calculation for the different classes yielded extremely
7 similar results, the final benefits rate was made to match for all classes by averaging the
8 results in Table 1 above for each rate class and escalating that average value to account for
9 the effect of inflation between the time the period of analysis relative to the time when the
10 Phase 1 Project is anticipated to go into service. This is the Renewable Benefits Rate in

1 year one of the Program. The benefit rate in the Program tariff then escalates annually at
2 2.5%.

3 **Q. How does this analysis of the CCOSS data, as used to establish the**
4 **Renewable Benefits Credit, compare to the pricing paradigm of the Company's**
5 **existing Community Solar Program?**

6 A. There are some important similarities between the concepts at work in these
7 two programs. For the Community Solar Program, the subscriber pays a cents per kWh rate
8 based on the levelized cost of program resources. This is similar to the Renewable Resource
9 Charge in the Renewable Solutions Program that is designed to cover the cost of Program
10 resources. Community Solar customers also pay a "facilities charge," which is based on the
11 functionalized T&D costs, and a portion of their demand-related production costs, for their
12 base service classifications. These subscribers essentially pay in revenues designed to
13 cover the Community Solar Program resources and applicable T&D costs and fixed
14 production costs that reflect the traditional resources needed to reliably serve the customers'
15 load, while effectively avoiding the requirement to pay revenues intended to cover
16 potentially avoidable production costs associated with the pre-existing generation for their
17 subscribed percentage of usage.

18 **Q. Based on the Renewable Resource Rate and Renewable Benefits Credit**
19 **that you determined as you described above, please explain how you evaluated the**
20 **expected net subscriber cost of subscription, and how that factored into the**
21 **Company's assessment of the reasonableness of the individual rate components.**

22 A. The Company modeled subscribers' bills, for individual customers with
23 different subscription levels, and in aggregate for the subscribers as a group. As discussed

1 in witness Forsberg's testimony, the aggregate of participants' net bills provides a
2 meaningfully positive net present value, which strongly suggests participants will
3 contribute to the overall affordability of this resource, which will begin in earnest the
4 Company's transition to higher levels of renewable generation, and by doing so, benefit all
5 customers on the system. But further, looking at these net bills under a variety of production
6 scenarios, the Company estimated the implied cost of Renewable Energy Credits
7 ("RECs")⁴ to the subscribing customers to consider how it might compare to other
8 alternatives they have to meeting their renewables goals. This was the ultimate barometer
9 we used to establish the reasonableness of the individual charges associated with the
10 Program. The implied cost per REC at the P-50, P-75, and P-99⁵ percentiles of production
11 from the facility are shown in Table 2 below:

12 **Table 2 - Implied Subscriber Cost per REC**

Production Level	Implied Cost per REC
P-50	\$3.91
P-75	\$5.62
P-99	\$10.36

13 Based on the Company's experience in the market for RECs, and also recognizing
14 that subscribers shoulder the uncertainty in the eventual production level of the Program
15 resource, and therefore could experience costs across this range, the implied REC costs
16 provide assurance that subscribing customers are contributing fairly to the affordability of
17 the resource from which they are receiving the benefit of being able to claim its renewable

⁴ RECs represent the legal entitlement to the renewable attribute of generation associated with qualified renewable resources. RECs have an observable market where the implied cost of RECs under the Company's program could be compared for reasonableness.

⁵ P- levels indicate that production is expected to exceed the indicated level a particular percentage of the time. So, for example, the P-99 level suggests that 99% of the time production will exceed that level, so 1% of the time it may be lower than that level.

1 attribute toward their sustainability goals. The fact that the Program is fully subscribed
2 suggests that the price was not so high as to impede participation, which would have
3 eliminated subscribers' economic contributions entirely.

4 **V. ADDITIONAL KEY PROGRAM PROVISIONS**

5 **Q. Please provide an overview of other key program provisions and terms**
6 **reflected in the tariffs filed to implement this Program.**

7 A. A great deal of research and analysis went into creating the Program with
8 goals of being as subscriber-friendly as possible, while still producing net benefits for non-
9 subscribing customers to enhance the affordability of resources needed to execute on the
10 Company's generation transition. For example, subscribers are contractually committing to
11 the Program, and need to be counted on to see their commitments through. But inevitably
12 there may be some circumstances where a subscriber needs to terminate their participation
13 in the Program. The Program tariff allows a subscriber's capacity to be transferred to a new
14 participant if there is an available customer that is interested, with no penalty to the
15 subscriber exiting the Program. This allows subscribers that need to leave the Program a
16 low-cost path to do so. However, if another customer cannot be found to take the
17 subscription over, the subscriber will be assessed a termination fee to protect non-
18 subscribing customers from the Program costs that might otherwise go uncovered by
19 Program revenues due to the loss of a subscriber.

1 **Q. Does the Program have a limited amount of capacity, or can it expand**
2 **to meet all customer demands? If it expands, are the pricing provisions in the**
3 **Program tariff to be updated?**

4 A. The overall Program is designed without a stated capacity limit. However,
5 it is noteworthy that we in fact had a total of 269 MW of demand for Phase 1 of the program
6 among the 20 customers solicited for Phase 1. Based on this response to the Phase 1
7 offering, we would expect to add additional phases to satisfy that demand. For Phase 1 the
8 capacity is limited to 150 MW to match the resource to be built for that phase. As stated in
9 the Program tariff, the prices reflected in the tariff filed in this case are applicable only to
10 this first phase. However, the tariff structure allows for additional phases under the same
11 Program terms and pricing principles to meet additional customer demand, but with
12 updated price levels based on the resources that will be dedicated to each phase.

13 **VI. REQUEST FOR APPROVAL OF A TRACKER**

14 **Q. Please describe the need for, and operation of, the tracker that the**
15 **Company is requesting that the Commission authorize along with approval of the**
16 **Renewable Solutions program.**

17 A. A key part of the Program, as is hopefully obvious by this point in my
18 testimony, is the affordability benefits that accrue to all customers as a result of subscribers
19 paying a premium in order to claim the renewable attributes of the Program resource. A
20 tracker is needed to ensure that *all* of those affordability benefits do ultimately accrue to
21 all customers. In order to make that happen, the Company is requesting that the
22 Commission authorize it to track all Program revenues (based on the net bill of subscribers,
23 reflecting both charges and credits) so that those revenues can be reflected in base rates (by

1 lowering future revenue requirements) through an amortization in future rate proceedings.
2 Without this tracker, those benefits will not be captured for all customers but instead would
3 accrue to the Company by operation of regulatory lag. Absent the tracker, benefits of the
4 Program would certainly be realized in each rate review, but it is much less likely that *all*
5 of the benefits would accrue to customers.

6 **VII. CONCLUSION**

7 **Q. What are your key conclusions about the Company's proposed**
8 **Renewable Solutions Program?**

9 A. The Renewable Solutions Program is an innovative approach to meeting the
10 increasing C&I customer demand for renewable energy by utilizing renewable energy
11 resources needed to transition the Company's generating fleet to much greater reliance on
12 renewable resources. The pricing structure was carefully constructed to generate Program
13 revenues to reflect the costs of Program resources from subscribers, while reasonably and
14 fairly allocating the benefits arising from the Program between subscribers and non-
15 subscribers. This pricing structure provides predictable rates for subscribers while also
16 creating a high likelihood that net benefits will result from the Program for non-subscribers,
17 which will improve the overall affordability of the Company's generation transition.

18 **Q. Does this conclude your direct testimony?**

19 A. Yes, it does.

