

STATE OF VERMONT  
PUBLIC SERVICE BOARD

**PREFILED TESTIMONY OF  
PATRICIA H. RICHARDS  
ON BEHALF OF**

**WASHINGTON ELECTRIC COOPERATIVE**

May 23, 2014

The purpose of Ms. Richard's pre-filed testimony is to explain WEC's net metering tariff that has been contemporaneously filed with the PSB.

**Exhibits**

- Exhibit WEC PR-1: Patricia H. Richards Resume**
- Exhibit WEC PR-2: Tariff Filing**
- Exhibit WEC PR-3: Net Metering Installations**
- Exhibit WEC PR-4. Cost of Service**
- Exhibit WEC PR-5. Billing Rate Example**
- Exhibit WEC PR-6: Net Metering Power Costs Savings Analysis**
- Exhibit WEC PR-7: 2014 EEC Rates**

**STATE OF VERMONT  
PUBLIC SERVICE BOARD**

Docket No. \_\_\_\_\_

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**PREFILED TESTIMONY OF  
PATRICIA H. RICHARDS  
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**WASHINGTON ELECTRIC COOPERATIVE, INC.'S  
NET METERING TARIFF**

1

2 Q1. Please state your name, occupation and business address.

3 A1. My name is Patricia H. Richards and I am General Manager for Washington Electric  
4 Cooperative, Inc. ("WEC"). My position with WEC as General Manager commenced  
5 July 1, 2013. My business address is 40 Church Street, East Montpelier, Vermont 05651.

6

7 Q.2. Please describe your experience prior to becoming General Manager for WEC.

1 A.2. Prior to coming on board as WEC's General Manager, I served as a Senior Consultant for  
2 La Capra Associates. La Capra Associates is a consulting firm specializing in energy  
3 planning and market analysis, energy procurement and portfolio management, regulatory  
4 and ratemaking economics, and regulatory policy in the electricity, natural gas and water  
5 utility industries. Prior to working with La Capra Associates, I held several positions in  
6 Vermont which addressed power supply, demand side management, and regulatory  
7 issues.

8  
9 More specifically, I was an energy planner and power supply manager with over 25 years  
10 of experience in the electric utility industry. My areas of experience include power  
11 supply procurement and management, wholesale and retail power transactions,  
12 understanding and managing portfolios in power supply markets, power project financial  
13 analysis and due diligence, asset valuations, integrated resource planning and analysis,  
14 demand side management evaluation and planning, and electric utility cost of service and  
15 rates. My principal work focused on utilities and wholesale and retail power companies.  
16 I have advised managers concerning the electric power supplies for several Vermont and  
17 New England consumer owned electric utilities. I have also advised large industrial  
18 customers, power plant developers, and owners regarding specific power projects and  
19 transactions, portfolio risk management strategies and power market eligibility. I have  
20 prepared and reviewed numerous valuation analyses of power projects and assets,

1 managed power portfolios, and worked with utilities in managing resources. I have  
2 evaluated the economics, contract structure, credit security, and development prospects of  
3 renewable and non-renewable power plants in the northeast U.S. I have prepared or have  
4 overseen the preparation of integrated resource plans for several Vermont utilities.

5  
6 My experience also includes the preparation of numerous electric utility rate cases related  
7 to power supply expenses. I have prepared and submitted testimony in numerous  
8 Vermont utility proceedings including, but not limited to:

- 9 • VT PSB Docket 6270 (Amendment of VEPPI Contracts).
- 10 • VT PSB Docket 7422 (VPPSA financing of McNeil NOx reduction project).
- 11 • VT PSB Docket 7691 (Washington Electric Cooperative Rate Case).
- 12 • VT PSB Docket 7670 (Hydro Quebec US Purchase Power Agreement).
- 13 • VT PSB Docket 7825 (Washington Electric Cooperative Rate Case).

14  
15 Q.3. Have you previously submitted testimony in other state regulatory proceedings?

16 A.3. Yes I have submitted testimony to the Michigan Public Service Commission in the  
17 following cases:

- 18 • U-16794 (Consumers Energy Company, request for rate increase, 2011).
- 19 • U-16890 (Consumers Energy Company, request for approval of 2012 Power  
20 Supply Cost Recovery plan).

- 1           • U-17097 (DTE Electric Company’s , request for approval of its 2013 Power Supply  
2           Cost Recovery Plan).

3

4           My qualifications are set forth in my resume, **Exhibit WEC PR-1**.

5

6   Q4.    What is the purpose of your testimony?

7   A4.    The purpose of my testimony is to explain WEC’s net metering tariff filing. **Exhibit**

8           **WEC PR-2** is a copy of WEC’s proposed Net Metering Tariff that is the result of

9           changes to 30 V.S.A. §219a as recently enacted by the Legislature through Act 99

10          (H.702). My testimony explains and supports WEC’s filing of an alternate net metering  
11          tariff.

12

13   Q.5.    Please explain why WEC is filing an alternative net metering tariff.

14   A.5.    Act 99 allows utilities that meet renewable energy requirements to file an alternative net

15          metering program within 90 days of meeting the requirements of the law. This is referred

16          to the as the “achievement provision” of Act 99. WEC submits that it meets the

17          requirements of the achievement provision, and as a result, WEC is filing within the

18          requisite 90 day time frame a tariff and seeking approval for its alternative net metering

19          program.

20

1 Q.6. What are the requirements in the recently passed legislation relative to the achievement  
2 provision?

3 A.6. 30 V.S.A. § 219a(o), permits a utility to submit an alternative net metering program if it  
4 meets two criteria. The first requirement is to have a cumulative capacity of net metering  
5 systems that meet or exceeds 10% of the utility company's peak output. The second  
6 requirement is to have 90% of power sources from renewable based power as measured  
7 by retail sales.

8

9 Q.7. Does WEC meet the 10% capacity of net metering requirement of the legislation?

10 A.7. Yes. WEC, as of April 1, 2014, has 1.6 MW of net metering systems installed or in  
11 progress in its service territory. WEC's 2013 retail metered peak was 15.7 MW. As a  
12 result, 10% of WEC's peak is served by net metered systems, and therefore, WEC meets  
13 the first criteria of the achievement provision. **Exhibit WEC PR-3 Net Metering**  
14 **Installations 10-2013** is a yearly summary of net metering installations on WEC's  
15 system.

16

17 Q.8. Does WEC meet the 90% renewable power requirement?

18 A.8. Yes. Through a combination of current contracts and purchased RECs, WEC will not  
19 only meet the 90% renewable requirement, but WEC is planning to exceed it. WEC as of  
20 April 1, 2014, will retain the renewable attributes for approximately 45% of its power

1 mix to serve its retail load requirements and it has plans to purchase RECs for the balance  
2 to green up its mix.<sup>1</sup>

3

4 Q.9. Can you provide more detail regarding what sources of power WEC uses to meet the  
5 90% requirement of the new legislation?

6 A.9. Yes. WEC either owns or has contract entitlement to various renewable power sources in  
7 which it does not sell RECs. These sources of power include Wrightsville (hydro), Hydro  
8 Quebec Vermont Joint Owners (hydro), New York Power Authority (hydro), Ryegate  
9 (biomass), and VEPPI (hydro). These power supply sources currently account for  
10 approximately 45% of WEC's retail load needs. The remaining balance, to achieve the  
11 90% requirement, WEC will purchase RECs to green up the residual portion of its power  
12 mix. The REC portion of the achievement provision will be tracked via the NEPOOL  
13 GIS system while the contracts for Hydro Quebec, New York Power Authority and  
14 VEPPI do not have RECs that flow through the NEPOOL GIS system. These older  
15 contracts are sourced from renewable power for which WEC is counting toward the  
16 achievement provision.

17

18 Q.10. Please describe WEC's commitments to purchase vintage 2014 RECs which will be used  
19 to green up its power mix and satisfying the Act 99 requirements of 90% renewable?

---

1. WEC has reached an agreement to purchase RECs to meet this criteria. It is currently finalizing a contract with the seller of the RECs. WEC intends to notify the Board upon execution.

1 A.10. WEC has agreed to purchase 20,000 RECs produced in 2014 to meet the goal of the Act  
2 99 achievement provision and to meet other WEC goals.

3  
4 Q.10. Does WEC have the RECs currently in its NEPOOL GIS Account?

5 A.10. No, but the RECs will be transferred on or before 12/31/2014. Due to the mechanics and  
6 timing of the NEPOOL GIS, RECs are not posted to the account until several months  
7 after power is produced. RECs are transferred quarterly between accounts and WEC has  
8 made plans to have sufficient RECs which will be produced in 2014, and transferred on  
9 or before December 31, 2014 to cover its retail load requirements in 2014. For example,  
10 power produced from April to June of 2014 will not be available to transfer to WEC's  
11 NEPOOL GIS account until October 15, 2014. Each quarter's production and trades  
12 follow the schedule in the table below:

13

Renewable Generated in 2014	1st Quarter Jan-Feb-Mar	2 <sup>nd</sup> Quarter Apr-May-Jun	3 <sup>rd</sup> Quarter Jul-Aug-Sep	4 <sup>th</sup> Quarter Oct-Nov-Dec
Transfer period	7/15/2014 - 9/15/2014	10/15/2014- 12/15/2014	1/15/2015 - 3/15/2015	4/15/2015 - 6/15/2015

14  
15 Q.11. Please explain your understanding of the 90% renewable provision.

16 A.11. It is my understanding that the intent of the legislation is that each year a utility must  
17 have sufficient renewable sources of power to cover at least 90% of its retail load in an



1 annual period. The first year begins by measuring load in April and tallying that load  
2 monthly through December. Each subsequent year the retail load is measured for a full  
3 12 months or annual period. WEC believes the intent is to measure retail load and  
4 renewable sources of power as measured by RECs and/or contracts for renewable power  
5 sources as approved by the Board. The power from these renewable resources may be  
6 produced and/or retired in each respective or vintage year regardless of whether the RECs  
7 are transferred and/or retired during the specific month they are produced, so long as it  
8 occurs within the allowed time frame available in the marketplace for transfer.<sup>2</sup> The  
9 bottom line intent is to insure the utility has sufficient renewable resources that were  
10 generated within the year.

11  
12 Q.12. How did WEC determine the number of RECs needed to green up its mix?

13 A.12. First WEC calculated its load requirements. WEC's four year average annual retail sales  
14 (2010 – 2013) is approximately 69,500 MWH. However, to meet the achievement  
15 provision, the renewability test begins April 1, 2014. Therefore, in the first year (April  
16 2014 through December 2014) WEC's retail sales are projected to be 50,100 MWH. As  
17 a result, WEC will need roughly 45,100 MWH in renewable sources to meet the 90%  
18 requirement. WEC anticipates 45% or 22,500 MWH's will be served from committed

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2 . Due to the mechanics and timing of the NEPOOL GIS, RECs are not posted to the account until several months after power is produced. *Supra.*, above. Additionally, contracted sources of power may have a seasonal shape where more power is produced in some months than others.

1 renewable supplies and the balance or 22,600 MWH will be purchased from the REC  
2 market. WEC will refine its purchase requirements once its loads are known at the end of  
3 2014 and it will purchase any residual requirements at that time.

4  
5 Q.13. Is the decision to green up WEC's mix consistent with other state of Vermont goals and  
6 WEC's most recently filed IRP?

7 A.13. Yes. As stated in WEC's most recently filed IRP, WEC plans to green up its power mix  
8 by purchasing and retiring renewable energy credits to not only meet the state's  
9 renewable target which is 55% by 2017 as forth in 30 V.S.A. §8005 (d)(4), but WEC  
10 plans to exceed that target. WEC's internal goal is to achieve at least a 90% renewable  
11 mix in 2014. It will achieve this goal by purchasing low costs RECs and retaining RECs  
12 from some of its existing sources of power. Hence, WEC's efforts to green up its power  
13 mix are consistent with state of Vermont targets as outlined in the Comprehensive Energy  
14 Plan as well as its IRP, and the purchases will also serve to meet provisions of the  
15 achievement provision in Act 99.

16  
17 Q.14. Please describe WEC's goals for an alternative net metering program.

18 A.14. WEC has several goals for its net metering program and they are summarized as follows:  
19

20 1. **Pursue equity among members and promote fairness** – To accomplish this goal,

1 WEC believes fair and reasonable cost recovery components need to be applied to net  
2 metered members. These cost recovery components balance the integrity of the  
3 distribution system and services provided by WEC while preserving the principles of  
4 cost causation and just and reasonable rates. All members, including those that  
5 pursue net metering, use WEC's grid, its delivery infrastructure, billing functions, and  
6 other WEC services. Therefore, WEC has designed the program so that appropriate  
7 fees for interconnection, use of the electrical system, and use of WEC services are  
8 recovered from net metered members.

9  
10 2. **Program clarity and simplicity** – WEC believes the structure of the program should  
11 be clear and straightforward, and it should also send appropriate development signals  
12 to those interested in net metering. WEC's net metering program is created with the  
13 intent that consumers will understand how the program works and will scale projects  
14 to meet their load needs. WEC's net metering program maintains significant  
15 continuity of program elements with the new legislation as passed in Act 99, and  
16 therefore developers, will be familiar with many of WEC's design features.

17  
18 3. **Encourage net metering installations** – WEC designed a net metering program that  
19 encourages net metering installations to occur in its service territory. I spoke with  
20 potential net metered members and other interested members. The feedback was that

1           they believed the program design was appropriate, fair, and it would not deter  
2           installation of members pursuing net metering.<sup>3</sup>

3  
4           **4. Integrate energy efficiency goals with net metering** – We believe including a link  
5           to energy efficiency will help promote the efficient use of electricity for those  
6           planning to site and construct distributed generation projects. High use residential  
7           and all Commercial and Industrial (C&I) consumers will be required to have an audit  
8           or a 5 star rating (or comparable energy rating) within the past 10 years to participate.

9  
10    Q.15. Please describe unique features of WEC’s net metering program and those elements that  
11       are different from the new legislation as enacted in Act 99:

12    A.15. WEC’s new net metering program will generally follow the requirements as laid out in  
13       Act 99 with the exception of the following items:

14  
15       **1. Metering** – Two meters are required; one for the premises and a second for the net  
16       metered system to measure production of the generation. The premises meter will  
17       measure all consumption of the premises. The production meter will measure all  
18       generation of the net metered system. The cooperative will furnish both meters and the  
19       production meter will be at the customer’s expense. WEC will own both meters. Netting

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3. Personal communication occurred with Cort Richardson, East Montpelier and Andy Robinson, Plainfield.

1 and crediting of use and production will be done by WEC monthly.

2  
3 **2. Net Excess Generation Paid** – When the production meter exceeds the member’s  
4 consumption, the net excess will be monetized as follows:

- 5 ○ Systems less than or equal to 15 kW paid at a rate of 20 cents per kWh.
- 6 ○ System more than 15kW paid at a rate of 19 cents per kWh.

7 Dollar credits for net excess generation can be kept for 12 months, and they can only be  
8 applied to energy charges incurred under the regular retail rate tariffs. After 12 months,  
9 the credits will be removed from the members account. The rates paid for Net Excess  
10 Generation will remain fixed for the life of the project. The rates will apply to all net  
11 metered generation regardless of renewable technology type (solar, wind, hydro, etc will  
12 receive the same level of credits). It should be noted that the net metering member will  
13 offset WEC’s retail rates based on the consumption of the premises and production of the  
14 distributed generation. Therefore, the value of net metering adjusts over time as WEC’s  
15 rates change. It is only the net excess portion of the generation that is paid at a fixed rate  
16 for the life of the project.

17  
18 **3. Use of Net Excess Generation Credits** – Credits received for net excess generation  
19 can only be used to offset dollars charged for energy or kWh use of the customer. Net  
20 excess generation credits from a net metered system may not be used to offset non-energy

1 fees or other charges. As an example, credits for net excess generation may not be used  
2 to offset the monthly customer charge, efficiency charge, demand charge, grid service fee  
3 or any other fee on the bill other than those fees for kWh electricity use. In addition, all  
4 net excess generation credits must be used up within a 12 month rolling period.

5  
6 **4. Energy Efficiency Audit** – All WEC members are encouraged and able to participate  
7 through Efficiency Vermont’s audit program. For those WEC members that seek to  
8 build their own generation, we want to help and encourage the member to build  
9 generation sized to meet load as efficiently as possible. Just as WEC strives to build and  
10 secure generation in a least cost manner for all its members in an efficient and least cost  
11 manner, so too should consumers that seek to build their own generation.

12  
13 WEC believes linking net metering to an efficient use of energy is an important and  
14 appropriate policy goal. As a result, in order to participate in WEC’s net metering  
15 program, consumers must demonstrate they have information available to assess the  
16 efficiency of their home or business.

17  
18 WEC’s net metering program requires high use residential and C&I accounts to have had  
19 an energy efficiency audit within the past 10 years or show a 5 star or comparable rating  
20 of the premises. Residential consumers will only be required to have an audit or 5 star

1 rating if they are considered high use. If a residential consumer's average monthly use is  
2 750 kWh per month or greater then they will be deemed high use (the average monthly  
3 use will be calculated and measured using a two year average of historic use or the most  
4 recent consumption history if less than two years).

5  
6 C&I buildings will also be required to show they have had an audit within the past 10  
7 years or show they have a 5 star or comparable rating. No high use level is assigned for  
8 C&I consumers due to the unique nature of each business account. WEC will require all  
9 C&I accounts that seek to net meter to have had or sign up for an audit. An audit can be  
10 through EVT or private entity as long as the private entity meets WEC's satisfaction  
11 (WEC will work with EVT to review privately conducted audits for suitability).

12  
13 High use residential and C&I members must have a report that summarizes their energy  
14 efficiency options, savings, and recommendations before being eligible to participate in  
15 the program. The decision and choice to implement audit recommendations will remain  
16 with the member. While WEC will not require implementation of measures from the  
17 audit prior to signing up for the net metering program, we will encourage members to  
18 pursue efficient measures along with their decision to build generation.

19  
20 **5. Environmental Attributes** – WEC will retain all rights and ownership to

1 environmental attributes of the net metered system. The decision to keep RECs is based  
2 on the fact that WEC is buying renewable sources of power from members in exchange  
3 for paying a premium for the energy (through offsetting of retail rates and payment for  
4 excess generation). All renewable claims and tradable renewable energy certificates  
5 associated with production from the net metered system shall be owned by WEC. WEC  
6 can retain these RECs or sell in New England RPS markets if it chooses.

7  
8 As noted, net metered members produce renewable power that is used to displace their  
9 energy costs at a value tied to retail rates, and therefore, they are able reap the financial  
10 benefit at prevailing retail rates into the future. Furthermore, excess power that is  
11 generated is paid at premium rates as outline under the Net Excess Generation portion of  
12 WEC's tariff. *Supra.*, at p. 14. WEC will make available to net metering members the  
13 ability to retain RECs in the event they choose to buy RECs at the fair market value.

14  
15 **6. Grid Service Fee** - This fee will be charged monthly to gross production of a  
16 distributed generation system under the tariff. The fee is designed to cover residual fixed  
17 or sunk costs that WEC incurs on behalf of all members including net metered members  
18 after taking into the account the value or benefits of net metered systems to WEC.

19  
20 The grid service fee represents the portion of the cost WEC will not recover from the net



1 metered member but where WEC still provides service. WEC calculated the value of  
2 solar distributive generation in reduced power supply expenses to be \$0.0957 per kWh,  
3 based on 2013 power supply expense as reflected in **Exhibit WEC PR-3, Net Metering**  
4 **Power Cost Savings Analysis 2013**. See, Q&A 18, *Infra.*, at p. 28, for further  
5 explanation of power cost benefits. Adding \$0.0600 per kWh for the value of RECs,  
6 which is based on current REC market conditions, distributed generation is worth roughly  
7 \$0.1557 per kWh to WEC (based on solar profile for which 98% of WEC's net metered  
8 systems are based).

9  
10 WEC's cost of service after taking into account other revenues is \$0.2019 per kWh.<sup>4</sup>  
11 **Exhibit WEC PR-4**, is WEC's Cost of Service. The difference, \$0.2019 – \$ 0.1557, or  
12 \$0.0463 per kWh, must be recovered from the amount net metered consumers produce  
13 net of the monthly service fee to make the program fair and equitable to all consumers.  
14 Since WEC will continue to charge a fixed monthly customer charge to members  
15 (currently \$11.79) this value is netted out of the grid service fee charge.

16  
17 The grid service fee rate will adjust as WEC's rates are updated and as it files for  
18 adjustments to its cost of service pursuant to 30 VSA § 225 and § 226 as approved by the  
19 Vermont Public Service Board ("PSB" or "Board"). This will have the effect of updating

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<sup>4</sup> Other revenues include pole attachment and REC revenues.

1 WEC's cost of service and balance equity and fairness among customer groups.

2

3 Table -1 below is a sample fee schedule that shows monthly grid service fee charges  
4 based upon example levels of production. See, **Exhibit WEC PR-4**, WEC Cost of  
5 Service.

6

Table -1

Summary Table - Grid Service Fee per Month	
Production KWH	RECs to WEC
300	\$ 2.10
400	\$ 6.73
500	\$ 11.36
600	\$ 15.99
700	\$ 20.62
800	\$ 25.25
900	\$ 29.88
1,000	\$ 34.51
1,100	\$ 39.14

7

8

9 In order to encourage installations and provide certainty for net metered members, WEC  
10 will hold the value of RECs fixed at \$0.0600 for ten years. After ten years, WEC will  
11 update the REC value and adjust its grid service fee according to the then current REC  
12 market conditions.

13

1 To update the REC values, WEC will use a 3 month average from the prior year to  
2 establish the REC value in the upcoming year. More specifically, WEC will use  
3 publically available REC market brokerage sheets from April, May, and June to reset the  
4 value of RECs for the upcoming year. WEC will repeat this updating of the value of  
5 RECs annually and adjust the rate effective January of each subsequent year while the  
6 member participates under the net metering tariff. This also provides a benefit to WEC  
7 members that seek to pursue distributed generation by providing price certainty for the  
8 portion of the credits given to distributed generation systems.

9  
10 **7. Monthly Billing** – WEC will net the kWh premises use against kWh production each  
11 month to calculate the member’s bill. In the event monthly kWh use exceeds monthly  
12 kWh production, the member will be charged for the net kWh use under the normal rate  
13 class rates net of banked net metered credits. As an example if the residential consumer  
14 used 500 kWh at a home and produced 300 kWh of power in a net metered system and  
15 had no banked credits, they would be charged under the regular residential retail rate for  
16 200 kWh of energy use (500 kWh – 300 kWh). The 300 kWh produced by the  
17 distributed generation system allows the consumer to offset WEC’s highest retail rate  
18 block (which is currently 0.21063 per kWh). The effect of the generation in this example  
19 is that it offsets a portion of the members energy cost at rate of \$0.21063 cents/kWh.

1           The member would also be charged other fees applicable to the retail rate tariff such as a  
2           monthly customer charge (currently \$11.79 per month for residential accounts) and  
3           energy efficiency fee for the net kWh still being used on WEC's system. In the example  
4           referenced above this would be 200 kWh times \$0.01091 per kWh. *See, Exhibit WEC*  
5           **PR-7 2014 EEC Rates.xls**, providing WEC's current efficiency rates. In addition, the  
6           net metered customer will pay a grid service fee for the power produced by the  
7           distributed generation system. In this example, the customer would pay an additional 300  
8           kWh times the grid service rate of \$0.0463 per kWh for the portion of power that was  
9           generated by production minus the customer charge of \$11.79 or \$2.10. However, in no  
10          event will the grid service fee charge be negative. To illustrate the charges before and  
11          after please see the example below:

12  
13  
14  
15  
16  
17  
18  
19  
20

1

Table - 2

WEC Net Metering Example		
Assuming Distributed Generation (DG) System < 15kW		
<b>Assumptions Used to Calculate Residential Rate Class Tariff</b>		
Monthly Member Charge	\$	11.79
1st 200 kWh /month rate	\$	0.09433
Over 200kWh kwh/month rate	\$	0.21063
EVT Rate	\$	0.01091
NM Grid Service Fee	\$	0.04630
Net Excess Generation < 15kW	\$	0.20000
<b>Example #1 - Use is greater than production</b>		
	<b>Before DG</b>	<b>After DG</b>
Use kWh at Premises	500	500
Production kWh at DG system	NA	300
Member Service Fee	\$ 11.79	\$ 11.79
Grid Service Fee	NA	\$ 2.10
Energy Charge 1st Block	\$ 18.87	\$ 18.87
Energy Charge 2nd Block	\$ 63.19	\$ -
EVT	\$ 5.46	\$ 2.18
Bill	\$ 99.30	\$ 34.94
Banked amount to NM Credit		\$ -

2

3

4

5

6

7

8

In this example, as illustrated in Table – 2, prior to installing distributed generation the member would have a monthly bill of \$99.30. After installing the distributed generation system, the member’s bill is \$34.94 or roughly a third of the original value. *See, also, Exhibit WEC PR-5, Billing Rate Example.*

1 In the event premises use is less than production, then the member will be credited on  
2 their account for net excess generation created for that month at the rates described in Net  
3 Excess Generation section described above in this same question. *Supra.*, at p. 14. The  
4 monetized credits created from Net Excess Generation will be banked and can be used to  
5 reduce the portion of the members' future energy bill that relates to energy charges when  
6 monthly use is greater than monthly production.

7  
8 As an example, if the consumer used 500 kWh at a home and produced 600 kWh of  
9 power from a < 15 kW distributed generation system, they would be credited 100 kWh  
10 times \$0.20/kWh or \$20.00. This credit will be used to offset the energy portion of their  
11 bill in a future month when use is greater than production.

12  
13 The member must use all dollar credits within a 12 month rolling period and the dollar  
14 credits can only be used to offset the energy portion of the bill (members cannot use the  
15 dollar credits to offset the customer charge, EVT charge, demand fees, grid service fee, or  
16 other charges). In addition, they will be charged a net metering grid service fee of 600  
17 kWh times the grid service fee rate or 600 kWh times \$0.0463 minus the monthly  
18 customer charge or \$15.99. In no event will the grid service fee charge be negative. To  
19 illustrate the charges before and after please see the example below:

20

1  
2

Table - 3

WEC Net Metering Example		
Assuming Distributed Generation (DG) System < 15kW		
<b>Assumptions Used to Calculate Residential Rate Class Tariff</b>		
Monthly Member Charge	\$	11.79
1st 200 kWh /month rate	\$	0.09433
Over 200kWh kwh/month rate	\$	0.21063
EVT Rate	\$	0.01091
NM Grid Service Fee	\$	0.04630
Net Excess Generation < 15kW	\$	0.20000
<b>Example #2 - Use is less than production</b>		
	<b>Before DG</b>	<b>After DG</b>
Use kWh at Premises	500	500
Production kWh at DG system	NA	600
Member Service Fee	\$ 11.79	\$ 11.79
Grid Service Fee	NA	\$ 15.99
Energy Charge 1st Block	\$ 18.87	\$ -
Energy Charge 2nd Block	\$ 63.19	\$ -
EVT	\$ 5.46	\$ -
Bill	\$ 99.30	\$ 27.78
Banked amount to NM Credit		\$ 20.00

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In this example, as illustrated in Table – 3, prior to installing distributed generation the member would have a monthly bill of \$99.30. After installing the distributed generation system, the member’s bill is \$27.78. In addition the member has a \$20 credit it can use toward the energy portion of a future bill. *See, also, Exhibit WEC PR-5, Billing Rate*

1           **Example.**

2

3   Q.16. Can you describe the similarities of WEC’s plan to the recently passed legislation?

4   A.16. Yes. In all other material respects, other than those identified in Q.15 above, WEC has  
5           attempted to draft the tariff consistent with 30 V.S.A. § 219a (as amended by Act 99) and  
6           P.S.B. Rule 5.100. The key features of the program design which match the recently  
7           passed legislation include but are not limited to:

8

9           1. Net metering system is a renewable sourced generation system defined in 8002 (17) of  
10           30 V.S.A. § 219a or is a qualified combined heat and power system of 20 kW or less (that  
11           meets subsection 8015 (b)) that is no more than 500 kW, operates in parallel with  
12           facilities of the electric distribution system, and is intended to offset the customer’s own  
13           electricity requirements.

14

15           2. A net metered customer shall pay the same rates, fees, or other payments and be  
16           subject to the same conditions and requirements as all other purchases from WEC in the  
17           same rate class, except as provided for in this tariff and except for appropriate and  
18           necessary conditions approved by the PSB for the safety and reliability of the electric  
19           distribution system.

20



1           3. Group systems are allowed. Benefits and costs will be attributed to the group's  
2 members based upon its decision on how to allocate production benefits of the net  
3 metering system. Application of the Energy Efficiency Audit will be required of all  
4 group participants.

5  
6           4. WEC will credit Net Excess Generation at the below rates and these rates apply to all  
7 renewable technology sources that qualify under the statute:

- 8           ○ ≤ 15kW system @ 20 cents per kWh.
- 9           ○ > 15 kW system @ 19 cents per kWh.

10  
11           5. WEC's program will allow new participants until all net metering consumers (pre-  
12 existing and new) on WEC's system reaches 15% of peak load or until WEC reaches the  
13 end of the program on or before January 1, 2017, or commensurate with a new PSB  
14 ordered program. Those members that sign up and are accepted will be charged and  
15 credited under the tariff through the life of their net metered project.

16  
17           6. Net Excess Generation will be banked for 12 rolling months. Any accumulated  
18 monetary credits must be utilized by the member within twelve months or they shall  
19 revert to the co-op without any compensation to the individual net metering system  
20 member.

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Q.17. Is WEC’s alternative program, prospective?

A.17. Yes. WEC’s new, alternative net metering plan will be prospective only. The changes described herein only apply to new net metering installations that come on line after approval of the WEC tariff. Pre-existing net metering systems will not see a change.

Q.18. Has WEC analyzed the financial impacts of net metering on its costs?

A.18. Yes. WEC analyzed the savings from net metering installations using solar based power and it calculated actual savings to WEC due to net metering in the amount of \$0.0957 per kWh. Power cost and related savings are calculated and displayed in more detail in **Exhibit WEC PR-6 Net Metering Power Cost Savings Analysis.xls**. The calculations in this file are based on 2013 market conditions and prices. In its calculation of benefits, WEC included reduced expenses to WEC due to lower energy charges, capacity market savings, ancillary markets savings (reserves, regulation, and other ISO-NE load charges), ISO-NE Transmission, GMP Transmission, and Vermont Transmission savings.

Q.19. Do the power costs savings calculated above offset all the cost from net metered member?

A.19. No. WEC’s total cost of service is far greater than the power cost savings from a solar system. At WEC’s current cost of service net of other revenue, WEC’s total costs needed

1 to recover from retail consumers is 0.2019 per kWh. With RECs from distributed  
2 generation systems being retained by WEC, additional value can be captured from the  
3 installation. Based on current REC markets, WEC assigned a value of \$0.0600 per kWh  
4 from net metered projects. WEC will hold the value of REC's constant through the tariff  
5 for 10 years. This means WEC needs to recover only \$0.0463 per kWh from net metered  
6 generation ( $\$0.2019 - \$0.0957 - \$0.0600 = \$0.0463$ ) to maintain equity and to balance  
7 cost among members. Credits for the value of RECs will be updated based on market  
8 conditions after 10 years. *Supra.*, at p. 20-21, for more detailed discussion.

9  
10 Q. 20. Did WEC assume savings for reduced distribution related expenses?

11 A.20. No. There are no assumed savings for distribution cost offsets due to the fact that WEC  
12 is a winter peaking utility. Solar based installations, which are 98% of net metering  
13 installations on WECs system to date, do not reduce the costs related to the design and  
14 build of the WEC distribution system and related infrastructure. The WEC distribution  
15 system is designed to serve WEC's peak loads, which normally occur between December  
16 and January and between 5 pm and 7 pm. During this time frame solar output is zero,  
17 and therefore, it does not defray the cost to build and maintain our distribution system.

18  
19 Q.21. What are the impacts to other members relative to the financial affects from those  
20 consumers that install net metered projects under WEC's new design?

1 A.21. WEC's electric system and grid must remain viable and continue to progress toward  
2 modernization to help ensure economic growth and renewable energy expansion at the  
3 customer or distributed level. In order to maintain a viable grid system, a fair means to  
4 allocate costs must be established. WEC's new program design allocates certain fixed  
5 costs through the use of a grid service fee, monthly customer charge and other non-  
6 energy related fees. By doing this, WEC has mitigated the transfer of fixed costs among  
7 members. To create a fair, balanced and equitable program design, the minimization of  
8 cost shifting is an important feature. Allocating a share of fixed costs to distributed  
9 generation customers is fair to all members as distributed generation customers use the  
10 grid's infrastructure just like other customers.

11  
12 Q.22. Has WEC considered and weighed the costs and benefits of net metering program design  
13 in the structure it developed?

14 A.22. Yes, WEC's mission is to develop and implement socially responsible, environmental,  
15 and economically sound polices and programs that will improve the well-being of the  
16 Cooperative, our members and the rural communities that we serve. WEC seeks to reach  
17 a balance to provide economic power to its members while supporting a program that  
18 provides new renewable sources of power. WEC believes the program design proposed  
19 achieves this balance and is fair and equitable to all members.

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1 Q.23. Does this complete your testimony?

2 A.23. Yes at this time.

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