

STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 19-1270-TF

Investigation into Washington Electric Cooperative, Inc.'s
tariff filing for rate design changes and a change in rate
schedules to be effective on services rendered beginning
June 17, 2019

DIRECT TESTIMONY OF
DANIEL POTTER

ON BEHALF OF THE
VERMONT DEPARTMENT OF PUBLIC SERVICE

September 4, 2019

Summary: Mr. Potter provides an overview of Washington Electric Cooperative Inc.'s (WEC) proposed rate design changes. Mr. Potter also introduces the Department of Public Service's (Department) other witnesses, provides an overview of the Department's recommendation that the Public Utility Commission require that WEC eliminate the inclining block rate structure from its residential rate tariff, and discusses the policy reasons underpinning the Department's recommendations.

Direct Testimony
of
Daniel Potter

1 **Q1. Please state your name, occupation, and business address.**

2 A1. My name is Daniel Potter. I am a Senior Energy Policy and Program Analyst for the
3 Vermont Department of Public Service (Department). My business address is 112 State
4 Street, Montpelier, Vermont.

6 **Q2. Please describe your professional background and experience.**

7 A2. I have worked for the Department since 2016. Previously, I was a Planner at the
8 Southern Windsor County Regional Planning Commission.

10 **Q3. Have you ever testified before the Vermont Public Utility Commission (Commission)**
11 **before?**

12 A3. Yes, in Docket/Case Nos. 8843, 8879, 17-3664, 17-3539, 17-3658, 17-5236, and 18-
13 2902.

15 **Q4. What is the purpose of your testimony in this case?**

16 A4. I introduce the Department's witnesses and overall position, present a review of the
17 Washington Electric Cooperative, Inc.'s (WEC) proposed rate design changes, and
18 discuss the Department's recommendation that WEC revise its proposed residential rate
19 to a uniform volumetric rate rather than the proposed inclining block rate.

20

1 **Q5. Can you first explain how the Department's testimony is organized?**

2 A5. Yes. My testimony addresses the policy rationales that underpin the Department's
3 recommended changes to WEC's proposed rate design. I discuss Vermont's energy policy
4 goals and objectives, and explain how and why the Department recommends that WEC's
5 proposed rate design be modified to better promote those goals. Ms. Carol Flint addresses
6 how adjustments to WEC's rate design will affect affordability within WEC's service
7 territory, with a focus on demographics and the impacts to low-income, low-usage
8 customers. Mr. Sean Foley's testimony calculates how the Department's proposed
9 recommendations for WEC's rate design will affect rates. Mr. Foley recommends that
10 WEC's proposed customer charge increase be phased-in over four steps to limit potential
11 rate shock. Mr. Foley also presents some concerns regarding the cost-of-service study that
12 WEC's consultant prepared in support of WEC's rate design filing.

13
14 **Q6. Please describe the changes WEC has proposed to its existing rate designs.**

15 A6. WEC's customer base is predominately residential. As Ms. Richards points out in her
16 prefiled testimony, residential customers represent 94% of WEC's meters and 87% of the
17 retail energy sales. As such, my testimony will largely focus on the residential rate class;
18 however, WEC is proposing changes to both its Large Power Rate as well as its
19 Commercial Rate. Broadly speaking, the changes to those rate classes include an
20 increase in the customer charge and a decrease in the energy charge. For the Residential
21 Rate WEC is proposing to increase the customer charge and maintain the inclining block
22 structure. More specifically, the monthly residential customer charge would increase

1 from \$14.19 to \$25, the first block of power would lower from 200 kWh to 100kWh and
2 the energy charge for the first block would lower from \$0.1135 per kWh to \$0.08 per
3 kWh. Additionally, the charge for the second block, any usage above the proposed
4 100kWh per month threshold, will decrease from \$0.25341 to \$0.19961. Ms. Richards
5 states that the proposed rate design better aligns WEC's rates with the State's goal of
6 reaching 90% renewable energy by 2050 as well as the Energy Transformation Tier of the
7 Renewable Energy Standard. These proposed changes will most significantly affect low-
8 usage customers, and Ms. Flint discusses affordability concerns associated with these
9 impacts in her testimony.

10
11 **Q7. What is the Department's recommendation regarding WEC's proposed rate design?**

12 A7. While it is true, as Ms. Richards points out, that lowering the energy rate for the second
13 block moves WEC's residential rate in the right direction, i.e. the reduction lowers the
14 disincentive for customers to invest in strategic electrification, the Department suggests
15 that WEC go even further. Specifically, the Department recommends that the residential
16 inclining block structure be removed entirely and replaced with a uniform rate structure,
17 under which all energy usage is billed at the same \$ per kWh rate. The Department
18 recommends a uniform residential rate structure as it would better align with the State's
19 goal of reaching 90% renewable energy in all sectors by 2050, the State's greenhouse gas
20 (GHG) goals¹, as well as the Energy Transformation Tier (Tier 3) of the Renewable

¹ 10 V.S.A. § 578 includes two GHG goals. The first is for a 50% reduction in emissions from 1990 levels by 2028 and the second is a 75% reduction in emissions from 1990 levels by 2050.

1 Energy Standard (RES). Additionally, the proposed rate design may not be needed given
2 other consumer facing price signals that exist in Vermont and a potential disconnect exists
3 between the intent behind the inclining block rate structure and its actual impacts.
4

5 The Department, however, recommends that the increased customer charge be phased-in,
6 which will mitigate the immediate impact on customers who are burdened by the modified
7 rate design. Likewise, as Ms. Flint notes in her testimony, the phase-in time should also allow
8 for WEC and the Department to review and potentially propose mechanisms that could limit
9 the rate burden imposed on WEC's most vulnerable, low-income consumers.
10

11 **Q8. Please address 30 V.S.A. § 218(b) which encourages inclining block rates.**

12 A8. The inclining block rate structure, the origin of which goes back decades, was a sensible
13 approach to encouraging lower consumption. However, the electric sector has changed
14 considerably since that time and rate structures need to evolve with these changes. As I
15 explain further below, there are circumstances where encouraging electric use – such as
16 electric vehicles and cold climate heat pumps – promotes climate goals.
17

18 As Ms. Flint indicates in her testimony, removing the inclining block rate will affect
19 affordability and have a significant impact on low-income, low-use customers. However, the
20 Department nonetheless maintains that it is important to eliminate the inclining block rate at
21 this time. WEC, like most utilities in Vermont, has traditionally filed for rate design changes
22 about every ten years. In light of the rapid changes to the electric industry and increasing need

1 for strategic electrification, it would be a mistake to potentially wait an additional decade to
2 make this important rate design change. Although removing the inclining block rate
3 constitutes a major change to WEC's rate structure, the Department contends that this change
4 will better align WEC's rates with the State's policy objectives and ultimately benefit WEC's
5 rate-payers.

6
7 **Q9. Please explain how moving from WEC's proposed inclining block rate to a uniform**
8 **residential rate is consistent with Vermont's goal of reaching 90% renewable energy**
9 **by 2050.**

10 A9. Vermont's 2011 Comprehensive Energy Plan set an ambitious goal of reaching 90%
11 renewable energy across all sectors by 2050. Vermont's electric sector is well along this
12 path, due to efforts of utilities like WEC that have elected to purchase renewable energy
13 credits (RECs) sufficient to cover their load as well as the mandates of the RES which
14 calls for utilities to be 75% renewable by 2032. However, progress in the transportation
15 and heating sectors has been much slower and significant challenges remain in these
16 sectors. Electrification of these sectors, e.g. through the use of cold-climate heat pumps
17 (CCHP) for heating and electric vehicles (EV) for transport, are promising strategies that
18 displace the use of combustible fuels with renewable energy. Inclining block rates,
19 however, send a price signal that encourages less electric consumption. Regulatory
20 policy should be directed at encouraging strategic electrification as an opportunity to
21 increase the amount of renewable energy used in the transportation and heating sectors.
22 While regulatory policies should continue to encourage demand response, weatherization,

1 and efficiency where appropriate, rate design structures should begin to evolve to
2 encourage consumers to replace fossil-fuel fired appliances and vehicles with electric
3 replacements that are powered by renewable electricity. Eliminating WEC's inclining
4 block rate will promote this objective.

5
6 **Q10. Please explain how moving from WEC's proposed inclining block rate to a uniform**
7 **residential rate is consistent with Vermont's GHG related goals.**

8 A10. The Transportation and Heating sectors represent the two largest contributions to the
9 State's GHG emissions. In order to have a chance at meeting the State's goals, these
10 sectors must be electrified. An inclining block rate sends a strong conservation and/or
11 efficiency price signal in a time when increasing electric use is necessary. It is important
12 to note that the Department is not stating that efficiency and conservation are no longer
13 important, in fact it is quite the opposite. When a household's energy consumption is
14 viewed holistically, strategic electrification of the heating and transportation sectors are
15 much more efficient means to provide the same services that Vermonters currently rely on
16 fossil fuels to provide. However, strategic electrification will result in additional use of
17 electricity and it is important that the State's electric distribution utilities do not send
18 price signals that discourage strategic electrification.

19
20 **Q11. Please explain how an inclining block rate sends a duplicative price signal.**

21 A11. Every customer in the State of Vermont pays a per kWh fee that supports the annual
22 budget and operation of the statewide electric efficiency utility, Efficiency Vermont.

1 Efficiency Vermont uses these funds to create incentives for the purchase of more
2 efficient fixtures and appliances. The residential Energy Efficiency Charge raised
3 \$978,647 from WEC residential customers in 2018 alone. The incentives enabled by this
4 collection of funds are available to all WEC residential customers and encourage the
5 efficient use of electricity in WEC's service territory. Given this existing structure that
6 encourages efficiency, the current era of uniform to declining loads, and a need to
7 electrify other sectors, the Department contends that an inclining block rate structure is
8 no longer a tool the state needs to employ to encourage efficiency.
9

10 **Q12. Please explain how inclining block rates may not be achieving efficiency.**

11 A12. The purpose of an inclining block rate is to send a strong price signal to conserve and use
12 energy efficiently. Ms. Richards states in her direct testimony that the average monthly
13 kWh consumption by a WEC member has decreased over the past decade and that the
14 average monthly use of 455 kWh is well below the statewide average. Ms. Richards
15 attributes these reductions to the price signal that WEC has been sending to its customers
16 through its inclining block rate structure. However, it is unclear that these savings are
17 directly attributable to WEC's rate design. Decreases in average monthly consumption
18 could also be attributed to WEC customers taking advantage of the incentives offered by
19 Efficiency Vermont or by fuel switching their appliances away from electricity. For
20 example, a customer could either purchase a more efficient electric range using incentives
21 offered by EVT or switch from an electric range to a propane-fired range and both would
22 lower the household's monthly electric consumption figures. Absent compelling data that

1 demonstrates causality, it is impossible to attribute these savings to the presence of
2 WEC's inclining block rate structure.
3

4 **Q13. What would the uniform rate be for WEC residential customers under the**
5 **Department's proposal?**

6 A13. Ultimately, the energy charge for the residential class would be \$0.17796/kWh based on
7 WEC's current, effective rates. Mr. Foley discusses this calculation in his prefiled
8 testimony and Ms. Flint discusses how this change affects low-use, low-income
9 customers in her testimony. However, as noted above, the Department recommends that
10 the increased customer charge be phased-in over four steps over the next three years.
11 Therefore, if the Department's recommendations are adopted, there will be some
12 variability in rates for three years as the customer charge is gradually increased.
13

14 **Q14. Do you have any additional recommendations?**

15 A14. Yes, WEC should also be required to file certain policy focused rates, e.g. an electric
16 vehicle end use rate, by date certain. As I noted above, rate design cases happen
17 infrequently, and it is imperative that action be taken now. WEC has the capability to
18 create additional rate designs that can lower costs for both the utility as well as its
19 members and create incentives for the adoption of technologies that can help to meet the
20 State's energy and GHG related goals. More specifically, the Department recommends
21 that WEC be required to develop an EV end-use rate. The EV end-use rate should be

1 designed to recognize the flexible nature of the new EV related load as well as
2 opportunities for the utility to manage that load.

3
4 Additionally, WEC's existing time-of-use (TOU) rate should be updated. In order for
5 TOU rates to be effective, they should be designed with a peak to off-peak ratio of at least
6 2:1 and, ideally, 3:1 or 4:1. WEC's current TOU rate includes an inclining block
7 structure and the peak to off-peak ratios within the blocks are 1:1 and 1.2:1, respectively.
8 WEC currently has zero members taking service under the existing TOU rate. The TOU
9 rate should be updated to be more attractive and understandable for consumers as well as
10 send a more compelling price signal. I also note that TOU rates may be beneficial to
11 some customers that are most adversely affected by the proposed rate design changes.

12
13 Given these considerations, the Department recommends that the Commission set a
14 deadline for WEC to update its time-of-use rate as well as develop an EV specific end use
15 rate. The Department finds that six months from the completion of this proceeding should
16 allow adequate time for WEC to file such tariffs.

17
18 **Q15. Does this conclude your testimony?**

19 **A15.** Yes, it does.