

1 **DIRECT TESTIMONY OF T. MICHAEL QUINN**

2 **I. POSITION AND QUALIFICATIONS**

3 Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND CURRENT
4 EMPLOYMENT POSITION.

5 A. My name is T. Michael Quinn. My business address is 1616 Woodall
6 Rodgers Freeway, Dallas, Texas 75202. I am Vice President Strategy
7 and Chief Technology Officer for Oncor Electric Delivery Company LLC
8 (“Oncor” or the “Company”).

9 Q. PLEASE DISCUSS YOUR EDUCATIONAL BACKGROUND AND
10 PROFESSIONAL QUALIFICATIONS.

11 A. I graduated from Clemson University in 1988 with a Bachelor of Science
12 degree in electrical engineering, and I am a registered professional
13 engineer in the state of Texas. I have worked for Oncor or its predecessor
14 companies since 1988, and I assumed my current position as Vice
15 President Strategy and Chief Technology Officer in 2013.

16 Q. WHAT ARE THE PRIMARY RESPONSIBILITIES OF YOUR POSITION?

17 A. I am responsible for setting the Company’s course in transforming the
18 value of the electric grid through innovative, technology-driven, and
19 customer-focused solutions that meet the growing and changing needs of
20 the market. My work impacts system performance and capital spending,
21 legislative and regulatory efforts, customer engagement, and future
22 business model evolutions.

23 Q. HAVE YOU EVER SUBMITTED TESTIMONY BEFORE THE PUBLIC
24 UTILITY COMMISSION OF TEXAS (“COMMISSION”)?

25 A. No, I have not.

26 **II. PURPOSE OF TESTIMONY**

27 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

28 A. The purpose of my testimony is to describe and support Oncor’s proposed
29 residential distributed energy resources (“DER”) tariff and rate. I explain
30 DER, the purpose and need for the DER rate, how the DER rate was
31 developed, how it will be applied, and Oncor’s plans for implementing the

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1 DER rate. This direct testimony was prepared under my direction,
2 supervision, or control and are true and correct. My direct testimony is
3 organized consistent with the topics set forth above.

4 **III. DISTRIBUTED ENERGY RESOURCES**

5 Q. PLEASE DESCRIBE DER.

6 A. DER consist of electrical power generation assets, connected to the grid
7 at the distribution level, generally below 10 megawatts, and situated
8 behind the meter on a customer's premises. They include technologies
9 such as solar photovoltaic ("PV") systems, microturbine and diesel
10 generation sets, battery energy storage systems, and small wind turbines.
11 Customers who elect to install standby or backup generation, which does
12 not operate in parallel with the grid and does not generate when the
13 premise is taking electricity from the grid, are exempt from this rate. The
14 declaration of standby or backup use only is made at the time of the
15 interconnect application and is a determinant of the rate assignment.

16 Q. WHY DO SOME CUSTOMERS CHOOSE TO INSTALL DER?

17 A. Customers may choose to install DER for a variety of reasons. Some wish
18 to diminish their environmental footprint. Some wish to establish more
19 control over the generation of the electricity they. Some wish to be early
20 adopters of new technologies. Some customers desire to fix a portion of
21 the cost of their electricity for a time period into the future. Some have
22 other, less obvious reasons.

23 **IV. THE PROPOSED DER RATE**

24 Q. UNDER ONCOR'S CURRENT TARIFF, WHICH RATE APPLIES TO
25 RESIDENTIAL CUSTOMERS WHO INSTALL DER?

26 A. Currently, Oncor's residential customers who install DER are on Oncor's
27 Residential Service Rate. That rate is designed to recover Oncor's costs
28 to provide transmission and distribution ("T&D") service to all residential
29 customers on a per kWh basis through the Distribution System Charge
30 ("DSC") and Transmission Cost Recovery Factor ("TCRF") components of
31 this rate.

1 Q. ARE YOU PROPOSING THAT THE COMMISSION APPROVE A
2 SEPARATE RATE FOR THOSE ONCOR RESIDENTIAL CUSTOMERS
3 WHO INSTALL DER?

4 A. Yes. In this case, Oncor is proposing that the Commission approve a new
5 rate for residential customers who choose to install DER with a capacity of
6 three kW or greater.

7 Q. IS A SEPARATE RATE APPROPRIATE FOR RESIDENTIAL
8 CUSTOMERS WHO INSTALL DER?

9 A. In general, Oncor's rates are designed to ensure that each customer pays
10 its proportionate share of Oncor's costs of providing service to those
11 customers. A separate rate for Oncor's residential customers who install
12 DER is appropriate because in almost every case, the amounts those
13 customers pay for T&D service under the Residential Service rate will not
14 cover the cost to provide them T&D service. This is a result of the fact
15 that the DSC and TCRF that are part of Oncor's current Residential
16 Service rate are calculated in large part based on the customer's kWh
17 consumption. Normally, after installing DER, a customer's energy
18 consumption – or kWh – will be dramatically reduced, although this is not
19 true for all customers who install DER (which I will discuss later in my
20 testimony). Therefore, customers who install DER reduce the amounts
21 they pay for T&D service provided to their premise, but they still require
22 the same level of T&D service they required before they installed DER.

23 Q. IF A CUSTOMER WHO INSTALLS DER DOES NOT PAY THE COSTS
24 INCURRED TO PROVIDE T&D SERVICE TO THAT CUSTOMER, THEN
25 HOW WILL THESE COSTS BE RECOVERED?

26 A. If Oncor were to maintain a per kWh rate for customers who install DER,
27 then the cost per kWh for all of Oncor's other customers must increase in
28 order to compensate for the revenues not received from customers who
29 install DER, creating a subsidy in effect.

30 Q. HOW MUCH WOULD ONCOR'S STANDARD RESIDENTIAL RATES
31 NEED TO INCREASE IF THE DER RATE IS NOT APPROVED?

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1 A. Oncor estimates that approximately \$1.6 million in costs would need to be
2 passed on to all Residential customers as of December 31, 2016, due to
3 the loss in revenue attributable to those customers who have installed
4 DER. However, this estimate is expected to grow. As of December 31,
5 2016, approximately 9,338 Oncor customers had installed DER on their
6 premise. This number is expected to grow by approximately 400-500
7 Oncor customers per month who are installing DER. Therefore, the
8 amount that must be allocated to all other customers will continue to grow
9 as the number of Oncor customers with installed DER on their premise
10 continues to grow.

11 Q. HOW WOULD THE DER RATE BE APPLIED TO A CUSTOMER WHO
12 INSTALLS DER?

13 A. When a customer notifies Oncor that he or she is going to install DER of
14 three kW or more, Oncor would determine the peak demand (in kW) that
15 the customer has incurred either since they moved into their premise or
16 since advanced metering system ("AMS") meters were installed at their
17 premise, whichever is more recent. That "Peak Demand" would then be
18 multiplied by the estimated "Demand Rate" of \$3.53 to determine the
19 customer's "Minimum Charge." I explain the determination of this charge
20 below.

21 Thereafter, each month after the customer installs DER, Oncor
22 would determine which is the higher amount between (a) the Minimum
23 Charge and (b) the amount the customer would have been charged if they
24 were on Oncor's standard Residential Service rate. The customer would
25 be charged the higher of the two amounts.

26 For example, if a customer's prior Peak Demand was found to be
27 10 kW, then the customer's Minimum Charge would be \$35.30. If the
28 customer's Minimum Charge of \$35.30 is then divided by the residential
29 rate in this case, this would equal 952 kWhs. As long as the customer
30 consumed less than 952 kWhs in a future month, then their total charge
31 for T&D service in that month would be \$35.30. If, however, the

1 customer's KWh consumption exceeded 952 kWhs, then the customer
2 would be charged under the standard Residential Service rate.

3 Q. HOW DID ONCOR DETERMINE THE DEMAND RATE?

4 A. To determine the Demand Rate (*i.e.*, the rate that will be multiplied by the
5 customer's Peak Demand to determine the Minimum Charge), Oncor first
6 determined the residential revenue requirement ("RRR") for the test year,
7 which is \$1,755,201,217. Oncor then determined the peak demand of the
8 residential class in 2016, which was 41,452,890 kW ("RPD"). Oncor then
9 divided the RRR by the RPD to determine the annual amount that a
10 customer would have to pay per kW to cover the RRR. The result was
11 \$42.34. This annual amount was then divided by 12 to determine the
12 monthly amount of \$3.53.

13 Q. WHY IS THE MINIMUM CHARGE IN YOUR PROPOSED RESIDENTIAL
14 DER RATE BASED ON A PEAK DEMAND OF THE CUSTOMER?

15 A. We believe that basing the Minimum Charge on the customer's peak
16 demand is the most appropriate way to ensure that customers who install
17 DER pay their proportionate share of Oncor's cost to provide T&D service
18 to that customer. Oncor builds its T&D system to serve the highest
19 demand that will need to be served. The higher the peak demand a
20 customer has, the more T&D assets that Oncor must build and maintain to
21 meet that demand. As I mentioned earlier, Oncor's rates are designed
22 with the overall goal of ensuring that each customer pays their
23 proportionate share of Oncor's costs of providing service to those
24 customers. Thus, to determine the true cost of the T&D system that a
25 customer should pay for T&D service after installing DER, Oncor would
26 determine the peak demand of the customer.

27 Q. DO YOU CONSIDER YOUR PROPOSED RESIDENTIAL DER RATE A
28 DEMAND CHARGE?

29 A. No, the DER Rate is not a demand charge as the term is commonly
30 understood: A demand charge typically changes along with the amount
31 by which a customer's peak demand changes from month to month.

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1 Oncor would only determine the customer's Peak Demand one time, when
2 the Minimum Charge is set.

3 Q. UNDER YOUR PROPOSED RATE DESIGN, IS IT POSSIBLE THAT A
4 CUSTOMER'S MINIMUM CHARGE BASED ON ITS PRIOR PEAK
5 DEMAND COULD EXCEED THE AMOUNT FOR T&D SERVICE THAT
6 THE CUSTOMER WOULD PAY UNDER ONCOR'S STANDARD
7 RESIDENTIAL SERVICE RATE IF IT HAD NOT INSTALLED DER?

8 A. No. Oncor does not intend for the DER Rate to be a penalty for those
9 installing DER, so Oncor would not allow a customer's Minimum Charge to
10 exceed what the customer would have paid had they not installed DER.
11 When Oncor determines the customer's prior Peak Demand, Oncor would
12 also determine the average monthly amount of kWh that the customer
13 consumed during the 12 months prior to the month when the customer
14 plans to install DER. Oncor would then multiply the average monthly kWh
15 consumption by the per kWh rate for Residential Service determined in
16 this rate case. The lower of the two numbers would be used to set the
17 customer's Minimum Rate (taking into account all of the applicable fixed
18 charges, customer charges, and non-bypassable charges that the
19 customer would have been charged).

20 To show how Oncor would determine whether the customer's
21 Minimum Charge would be set using their Peak Demand (based on kW) or
22 their consumption (based on kWh), I will continue with the previous
23 example. If the customer's prior peak demand was 10 kW, then the
24 demand rate Minimum Charge would be \$35.30. If the average monthly
25 kWh consumption exceeded 952 kWhs, then \$35.30 would be used as the
26 Minimum Charge because 952 multiplied by the residential rate in this
27 case would equal \$35.30. However, if the average monthly kWh
28 consumption was less than 952 kWhs, then the customer's Minimum
29 Charge would be set at that average consumption multiplied by Oncor's
30 residential per kWh rate (plus all applicable fixed charges, customer
31 charges and non-bypassable charges). The intent of the DER Rate is not

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1 to penalize a customer for installing DER but to accurately collect the
2 costs incurred by Oncor to serve that customer.

3 Q. WHY IS THE DER RATE A MINIMUM CHARGE AND NOT JUST A FLAT
4 RATE?

5 A. There are two reasons why Oncor chose to design the DER Rate as a
6 minimum charge. First, as I mentioned earlier, although most customers
7 drastically reduce their average energy acquisition from the grid after
8 installing DER, approximately 16 percent of a statistically significant
9 sample of customers actually increased their consumption after installing
10 DER. As a result, Oncor needs to provide for this situation in its rate
11 design. Second, a Minimum Charge provides customers with the
12 continued incentive to conserve energy. Although the proposed DER
13 Rate would only apply to the T&D service portion of a customer's electric
14 bill and not the energy portion of the bill, Oncor believes that it is important
15 to maintain the incentive to conserve on the entire bill. Using a minimum
16 charge as part of the proposed DER Rate ensures that customers who
17 install DER are incented to keep their consumption as low as possible.

18 Q. HOW WOULD INTERIM RATE UPDATES AFFECT THE DER RATE?

19 A. A customer on the DER Rate would have their Minimum Charge modified
20 by interim rate updates. The Demand Rate would be modified as Oncor's
21 residential revenue requirement is modified by interim rate updates. The
22 revised residential revenue requirement would be divided by the 2016
23 RPD discussed above to determine the new Demand Rate. Customers
24 who have a Minimum Charge based on their Peak Demand would be
25 charged a new Minimum Charge equal to their original Peak Demand
26 multiplied by the new Demand Rate. Similarly, customers who have a
27 Minimum Charge based on their prior consumption would have their
28 Minimum Charge modified by using their original average kWh
29 consumption multiplied by the new residential per kWh rate.

30 Q. HOW WOULD NON-BYPASSABLE CHARGES AFFECT THE DER
31 RATE?

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- 1 A. All customers would continue to be charged Non-bypassable Charges
2 such as EECRF and NDF.
- 3 Q. WHAT ABOUT CUSTOMERS WHO HAVE ALREADY INSTALLED DER?
- 4 A. When the DER Rate becomes effective, Oncor would apply the DER Rate
5 to customers who have already installed DER beginning in the subsequent
6 month as if these customers had installed DER in the month that the DER
7 Rate becomes effective.
- 8 Q. WHEN WOULD THE DER RATE GO INTO EFFECT?
- 9 A. Oncor would need to wait until at least July 1, 2018, or six months after
10 the final order of this rate case, whichever date is later, before
11 implementing the DER Rate because Oncor is implementing a new
12 customer information system in the fourth quarter of 2017. Oncor would
13 not be able to modify that system to bill this new rate structure until after
14 the new system is in place. Until the time that the DER Rate is
15 implemented, we would continue to bill customers who have installed DER
16 based on the Residential Service rate, realizing that we will be under-
17 recovering from those customers until the DER Rate is implemented.
- 18 Q. IS THE DER RATE INTENDED TO STIFLE DER INSTALLATIONS?
- 19 A. No. Oncor is dedicated to maintaining a T&D system that will support
20 whatever choices our customers make regarding their energy needs.
21 Today, customers who install DER are passing on a portion of the costs to
22 serve their premise to their neighbors and all other Oncor customers. The
23 intent of the DER Rate is to charge customers who choose to install DER
24 the cost to serve them while at the same time not penalizing them for
25 choosing to install DER in the event that their Minimum Charge based on
26 peak demand would exceed their average bill for T&D service before
27 installing DER.
- 28 Q. WOULD THE DER RATE AFFECT CUSTOMERS' ENERGY PORTION
29 OF THE BILL?
- 30 A. No, the DER Rate would not affect customers' energy portion of the bill.
31 Each customer would continue to pay for their energy portion of the bill in

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1 accordance with the terms set between each customer and their individual
2 retail electric provider ("REP").

3 Q. WOULD ONCOR PROVIDE REPS NOTICE AS TO WHEN THE DER
4 RATE WOULD GO INTO EFFECT?

5 A. Yes. Oncor commits to provide notice to all REPs 45 days before the
6 DER Rate would go into effect for the first time. Additionally, Oncor
7 commits to provide the specific Minimum Charge and the particular
8 method that was used to determine the Minimum Charge to the REP of
9 each customer who would be placed on the DER Rate. Thereafter, Oncor
10 would notify each REP in the ordinary course of business when a new
11 customer is changed to a DER Rate.

12 **V. CONCLUSION**

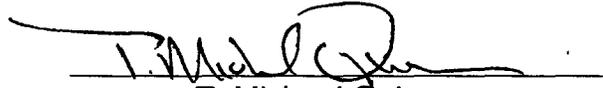
13 Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?

14 A. Yes, it does.

STATE OF TEXAS §
 §
COUNTY OF DALLAS §

BEFORE ME, the undersigned authority, on this day personally appeared T. Michael Quinn, who, having been placed under oath by me, did depose as follows:

My name is T. Michael Quinn. I am of legal age and a resident of the State of Texas. The foregoing direct testimony offered by me is true and correct, and the opinions stated therein are, to the best of my knowledge and belief, accurate, true and correct.

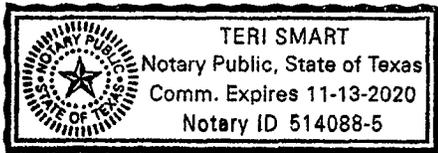


T. Michael Quinn

SUBSCRIBED AND SWORN TO BEFORE ME by the said T. Michael Quinn this 3rd day of March, 2017.



Notary Public, State of Texas



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