

1 Commission has ordered rate base inclusion of the balance of the  
2 unrecovered self-insurance reserve deficit in each of Oncor's base rate  
3 proceedings during the past 20 years, namely Docket Nos. 22350, 35717,  
4 38929, and 46957. In addition, the self-insurance deficit balance related to  
5 transmission and distribution property of the then-bundled utility was  
6 included in rate base in Docket No. 11735.

7 Q. PLEASE DESCRIBE THE UNRECOVERED BALANCE IN THE SELF-  
8 INSURANCE RESERVE THAT ONCOR IS SEEKING TO INCLUDE IN  
9 RATE BASE IN THIS RATE PROCEEDING.

10 A. As of December 31, 2021, the books and records of the Company reflect a  
11 regulatory asset deficit balance (*i.e.*, reserve shortage) related to self-  
12 insured property and liability losses of \$588,545,657. Since November 27,  
13 2017, as shown on Exhibit AT-4, the Company's rates have provided for  
14 \$117.6 million annually to recover both historical losses (*i.e.*, losses incurred  
15 prior to December 31, 2016) and current loss events covered by the self-  
16 insurance program. However, as shown in column (d) of Exhibit AT-4,  
17 Oncor's annual loss experience has averaged more than \$140.5 million  
18 annually during the five years since the Docket No. 46957 test year-end,  
19 resulting in the self-insurance reserve net shortage growing an additional  
20 \$365.26 million [see line 16, column (f) of Exhibit AT-4] by the end of the  
21 2021 test year. These loss expenditures are further detailed in Exhibits  
22 GSW-3 and GSW-4 of Mr. Wilson's direct testimony.

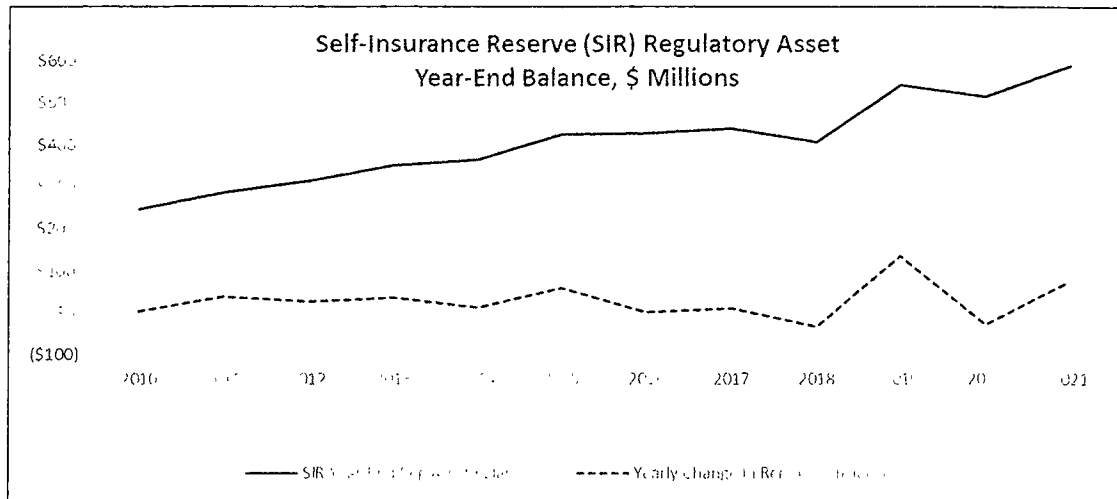
23 Q. HOW HAS ONCOR'S SELF-INSURANCE RESERVE DEFICIT BALANCE  
24 CHANGED OVER THE RECENT PAST?

25 A. The following graph depicts the self-insurance reserve's overall deficit  
26 balance at year-end, along with accompanying changes to rate base, from  
27 2010 through 2021. This graph and its supporting calculations are  
28 contained in Exhibit AT-5 to my testimony. The 2021 year-end deficit  
29 balance is the highest the deficit has ever been at year-end.

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Q. FOR PURPOSES OF THE SELF-INSURANCE RESERVE, HOW HAS ONCOR TREATED PROPERTY DAMAGE AND LIABILITY LOSSES INCURRED IN CONNECTION WITH THE RECENTLY ACQUIRED TRANSMISSION AND DISTRIBUTION ASSETS PREVIOUSLY OWNED BY SHARYLAND AND/OR SHARYLAND DISTRIBUTION & TRANSMISSION SERVICES, L.L.C., WHICH ARE NOW HELD BY ONCOR ELECTRIC DELIVERY COMPANY NTU LLC (“ONCOR NTU”)?

A. Upon acquisition of the Oncor NTU assets, any property damage or liability losses incurred in connection with the Oncor NTU assets were handled in the same manner as property damage and liability losses incurred in connection with Oncor’s legacy assets for purposes of self-insurance reserve accounting. All post-acquisition Oncor NTU asset-related property damage and/or liability loss events are reflected in the list of historical claim losses attached to Mr. Wilson’s testimony as Exhibit GSW-3.

Q. DOES ONCOR INTEND TO CONTINUE TRACKING PROPERTY DAMAGE AND LIABILITY LOSSES RELATED TO THE ONCOR NTU ASSETS IN THE SAME MANNER AS IT TRACKS SUCH DAMAGE AND LOSSES RELATED TO ONCOR’S OTHER ASSETS?

A. Yes. Going forward, Oncor proposes to continue this same accounting practice, with property damage and liability losses to the Oncor legacy assets and the Oncor NTU assets all reflected in one self-insurance reserve

1 account. Oncor requests its self-insurance reserve accrual to be set on a  
2 consolidated basis, consistent with the consolidated rates proposed in  
3 Oncor's RFP.

4 Q. PLEASE DISCUSS HOW ONCOR'S SELF-INSURANCE RESERVE  
5 BALANCE HAS BEEN FUNCTIONALIZED.

6 A. The Company maintains separate accounting for the self-insurance reserve  
7 transactions for the distribution and transmission functions. Each individual  
8 property and liability loss is analyzed to determine the function or functions  
9 to which it relates; similar to the accruals allowed through rates, the costs  
10 related to these self-insured incidents are recorded directly in the respective  
11 function's accounting records. Therefore, the resultant regulatory asset or  
12 regulatory liability balance has been directly assigned to the distribution or  
13 transmission function.

14 **B. Cost of Service Adjustments**

15 Q. PLEASE SUMMARIZE THE FUNDING ALLOWANCE ADJUSTMENTS TO  
16 THE SELF-INSURANCE RESERVE THAT YOU ARE SPONSORING.

17 A. As detailed in the following table, I am proposing that both components of  
18 the self-insurance reserve allowance amount be increased above the test  
19 year level. First, to more adequately provide self-insurance coverage for  
20 subsequent loss incidents, I propose increasing the annual accrual from \$75  
21 million to the \$122.2 million level as recommended in the direct testimony  
22 of Mr. Wilson. This recommended \$122.2 million is intended to cover  
23 annual expected losses only. Second, I propose that the test year-end  
24 deficit balance of approximately \$588.55 million (including about \$223.29  
25 million of the remaining balance of unamortized losses approved in Docket  
26 No. 46957) be amortized over a five-year period.

	Test Year Accrual	Proposed Accrual
Loss Accrual – Distribution	\$73,500,000	\$115,845,600
Loss Accrual – NTU-TRN	-	611,000
Loss Accrual – Transmission	1,500,000	5,743,400
<b>Loss Accrual – Total</b>	<b>\$75,000,000</b>	<b>\$122,200,000</b>
Amortization – Distribution	\$42,501,868	\$112,551,630
Amortization – NTU-TRN	-	730,703
Amortization – Transmission	140,227	4,426,798
<b>Amortization – Total</b>	<b>\$42,642,095</b>	<b>\$117,709,131</b>
<b>Total Reserve Allowance</b>	<b>\$117,642,095</b>	<b>\$239,909,131</b>

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**1. Accrual for Annual Losses**

Q. PLEASE DESCRIBE THE ADJUSTMENT YOU ARE PROPOSING TO INCREASE THE ANNUAL SELF-INSURANCE RESERVE ACCRUAL.

A. As described above, the deficit balance in the Company’s self-insurance reserve has grown by more than \$365.26 million in the five years between the December 31, 2016 test year-end from Docket No. 46957, and the December 31, 2021 test year-end presented in this case. The significant growth in the unrecovered balance highlights the need to increase the level of funding, so that current ratepayers are paying their share of the costs necessary to providing electric service. Accordingly, I am proposing the annual accrual to cover current losses be set at the \$122.2 million funding level recommended in Mr. Wilson’s direct testimony.

**2. Amortization of the Self-Insurance Reserve Balance**

Q. PLEASE DESCRIBE THE ADJUSTMENT YOU ARE PROPOSING FOR THE AMORTIZATION OF THE SELF-INSURANCE RESERVE DEFICIT BALANCE.

A. In Docket No. 46957, the Commission approved a settlement that included recovery of the then-existing regulatory asset deficit balance of \$426,420,946 in self-insurance reserve losses over a 10-year period, resulting in approximately \$42.6 million of annual amortization expense. As shown on line 8 of my Exhibit AT-4, there remains an unrecovered balance of approximately \$223.29 million at the end of the 2021 test year. This balance remains because less than half of the approved ten-year recovery

1 period has passed since the date on which Docket No. 46957 rates became  
2 effective, November 27, 2017. For the remainder of my discussion on this  
3 issue, I will refer to this as the “First Tier” balance. As shown on line 16 of  
4 Exhibit AT-4, more than \$365.26 million of additional unreimbursed self-  
5 insured losses have been realized since the end of the Docket No. 46957  
6 test year. For the remainder of my discussion on this issue, I will refer to  
7 this as the “Second Tier” balance.

8 In total, as shown on Schedule II-B-12, Oncor’s present unrecovered  
9 balance in its self-insurance reserve totals \$588,545,657 at the end of the  
10 2021 test year.

11 Q. HOW IS ONCOR PROPOSING TO RECOVER THE TEST YEAR-END  
12 BALANCE OF LOSSES IN THE SELF-INSURANCE RESERVE?

13 A. I propose that the First Tier and the Second Tier be combined and  
14 recovered over a new five-year amortization period. While this will extend  
15 the recovery of the First Tier balance, it serves to lessen the impact on  
16 customers by smoothing the amount over the new proposed amortization  
17 period. Under this proposed recovery, rates would reflect \$117,709,131  
18 annually to recover these historical losses (*i.e.*, \$588,545,657/ five-year  
19 recovery).

20 As PURA § 36.064(d)(2) and 16 TAC § 25.231(c)(2)(E) permit, I have  
21 provided the existing deficit balance in the self-insurance reserve of  
22 \$588,545,657 to Company witness Mr. Ledbetter for inclusion in Oncor’s  
23 invested capital balance as a regulatory asset. In addition, I have provided  
24 Mr. Ledbetter with the annual loss amortization level of \$117,709,131 to be  
25 included in the determination of Oncor’s total Operation and Maintenance  
26 expense requirement. I also recommend that the Commission establish a  
27 target self-insurance reserve surplus amount of \$267.5 million. This target  
28 reserve surplus amount is appropriate to provide an actuarially sound  
29 provision for coverage of Oncor’s self-insured losses, as recommended by  
30 Mr. Wilson.

1 Q. WHAT WOULD HAPPEN IF THE BALANCE IN THE SELF-INSURANCE  
2 RESERVE-RELATED REGULATORY ASSET ACCOUNT WERE TO  
3 REACH ZERO PRIOR TO RATES BEING RESET IN A FUTURE RATE  
4 CASE?

5 A. In this case Oncor proposes to redirect any amount of self-insurance  
6 reserve-related regulatory asset amortization expense to the self-insurance  
7 reserve account once the \$588,545,657 deficit balance is fully recovered  
8 and reaches a zero balance. This would enable the self-insurance reserve  
9 to continue accruing towards a target reserve surplus balance, which would  
10 then begin accumulating in a regulatory liability account as provided for in  
11 PURA § 36.064 and 16 TAC § 25.231. Thus, there exists no chance of  
12 “over-recovery” relating to the self-insurance reserve-related regulatory  
13 asset account balance because any amounts that are collected once this  
14 regulatory asset balance reaches zero would serve to offset future self-  
15 insurable losses and potentially reduce Oncor’s rate base; thus, they would  
16 continue to benefit ratepayers. Mr. Wilson’s direct testimony further  
17 discusses the mechanics of the self-insurance reserve.

18 Q. PLEASE EXPLAIN HOW YOU HAVE FUNCTIONALIZED THE  
19 REQUESTED LEVEL OF SELF-INSURANCE RESERVE EXPENSE.

20 A. Similar to the direct assignment of the self-insurance reserve balance to the  
21 proper business function, the annual provisions provided for in rates, along  
22 with the annual amortization of the existing deficit balances, can also be  
23 directly assigned to the appropriate distribution and transmission functions.  
24 Because Oncor maintains separate accounting for the self-insurance  
25 reserve transactions for the distribution and transmission functions,  
26 functionalization of these costs are directly assignable.

27 **3. Self Insurance Summary**

28 Q. PLEASE SUMMARIZE YOUR PROPOSED TEST YEAR LEVEL OF  
29 EXPENSES RELATED TO ONCOR’S SELF-INSURANCE PLAN.

1 A. I am proposing that Oncor include in rates the amount of \$122.2 million for  
2 the annual self-insurance reserve accrual to cover the costs of expected  
3 annual losses; this represents an increase of \$47.2 million over the \$75  
4 million annual amount previously approved in Docket No. 46957. I am also  
5 proposing an annual amortization of \$117.7 million to recover Oncor's self-  
6 insurance reserve deficit balance that existed at the end of the test year.  
7 Further, as provided for in PURA § 36.064(d)(2) and 16 TAC §  
8 25.231(c)(2)(E), the self-insurance reserve deficit balance in the amount of  
9 \$588,545,657 at the 2021 test year end should be included in the  
10 Company's total balance of invested capital.

11 Q. WHY IS IT IMPORTANT FOR THE COMPANY TO RECOVER SELF-  
12 INSURANCE RESERVE ACCRUALS AS REQUESTED?

13 A. For the reasons explained in Mr. Wilson's testimony, self-insuring Oncor's  
14 property and liability losses represents a lower cost alternative to  
15 commercial insurance, as prescribed for in PURA § 36.064 and  
16 Commission Rule § 25.231(b)(2)(G). Recovering past losses due to storms  
17 or other covered events within a reasonable amount of time aligns the cost  
18 recovery time period with the customers that benefit from storm restoration  
19 expenditures and avoids intergenerational inequities. For the reasons  
20 stated above and in Mr. Wilson's testimony, the Commission should  
21 approve the Company's requested self-insurance reserve recovery levels.

22 **VI. SUMMARY AND CONCLUSION**

23 Q. PLEASE SUMMARIZE YOUR DIRECT TESTIMONY.

24 A. In summary, my conclusions and recommendations are that:

- 25 • the balance of \$152,038,741 of M&S inventories (based on the 13-  
26 month average test year balance, as adjusted) is reasonable and  
27 should be included in Oncor's calculation of invested capital;  
28 • the balance of negative \$73,484,424 of CWC (based on the results  
29 of Oncor's lead-lag study) is reasonable and should be reflected in  
30 Oncor's calculation of invested capital;

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- 1           •     the balance of \$115,153,396 of prepayment costs (based on the 13-  
2                   month average test year balance, as adjusted) is reasonable and  
3                   should be included in Oncor’s calculation of invested capital;  
4           •     the adjusted test year-end balance of negative \$162,100 for  
5                   customer deposits is reasonable and should be included as a  
6                   reduction in the calculation of Oncor’s balance of invested capital;  
7           •     an annual allowance of \$122.2 million for Oncor’s self-insured  
8                   current property damage and liability claim incidents is reasonable  
9                   and necessary to provide adequate loss coverage, with a target  
10                  reserve surplus amount of \$267.5 million; and  
11          •     Oncor’s existing deficit balance in its self-insurance reserve account  
12                  in the amount of \$588,545,657 should be recovered from ratepayers  
13                  over a five-year amortization period, resulting in an annual recovery  
14                  allowance of \$117,709,131.

15          Q.     DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

16          A.     Yes.



**AFFIDAVIT**

STATE OF TEXAS           §  
  §  
COUNTY OF Dallas     §

**BEFORE ME**, the undersigned authority, on this day personally appeared Ashley Thenmadathil, who, having been placed under oath by me, did depose as follows:

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

  
\_\_\_\_\_  
Ashley Thenmadathil

**SUBSCRIBED AND SWORN TO BEFORE ME** by the said Ashley Thenmadathil on this 18<sup>th</sup> day of April, 2022.



  
\_\_\_\_\_  
Notary Public, State of Texas

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**CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS**

**Subchapter J. COSTS, RATES AND TARIFFS.**

**DIVISION 1. RETAIL RATES.**

**§25.231. Cost of Service.**

- (a) **Components of cost of service.** Except as provided for in subsection (c)(2) of this section, relating to invested capital; rate base, and §23.23(b) of this title, (relating to Rate Design), rates are to be based upon an electric utility's cost of rendering service to the public during a historical test year, adjusted for known and measurable changes. The two components of cost of service are allowable expenses and return on invested capital.
- (b) **Allowable expenses.** Only those expenses which are reasonable and necessary to provide service to the public shall be included in allowable expenses. In computing an electric utility's allowable expenses, only the electric utility's historical test year expenses as adjusted for known and measurable changes will be considered, except as provided for in any section of these rules dealing with fuel expenses.
- (1) **Components of allowable expenses.** Allowable expenses, to the extent they are reasonable and necessary, and subject to this section, may include, but are not limited to the following general categories:
- (A) Operations and maintenance expense incurred in furnishing normal electric utility service and in maintaining electric utility plant used by and useful to the electric utility in providing such service to the public. Payments to affiliated interests for costs of service, or any property, right or thing, or for interest expense shall not be allowed as an expense for cost of service except as provided in the Public Utility Regulatory Act §36.058.
  - (B) Depreciation expense based on original cost and computed on a straight line basis as approved by the commission. Other methods of depreciation may be used when it is determined that such depreciation methodology is a more equitable means of recovering the cost of the plant.
  - (C) Assessments and taxes other than income taxes.
  - (D) Federal income taxes on a normalized basis. Federal income taxes shall be computed according to the provisions of the Public Utility Regulatory Act §36.060.
  - (E) Advertising, contributions and donations. The actual expenditures for ordinary advertising, contributions, and donations may be allowed as a cost of service provided that the total sum of all such items allowed in the cost of service shall not exceed three-tenths of 1.0% (0.3%) of the gross receipts of the electric utility for services rendered to the public. The following expenses shall be included in the calculation of the three-tenths of 1.0% (0.3%) maximum:
    - (i) funds expended advertising methods of conserving energy;
    - (ii) funds expended advertising methods by which the consumer can effect a savings in total electric utility bills;
    - (iii) funds expended advertising methods to shift usage off of system peak; and
    - (iv) funds expended promoting renewable energy.
  - (F) Nuclear decommissioning expense. The following restrictions shall apply to the inclusion of nuclear decommissioning costs that are placed in an electric utility's cost of service.
    - (i) An electric utility owning or leasing an interest in a nuclear-fueled generating unit shall include its cost of nuclear decommissioning in its cost of service. Funds collected from ratepayers for decommissioning shall be deposited monthly in irrevocable trusts external to the electric utility, in accordance with §25.301 of this title (relating to Nuclear Decommissioning Trusts). All funds held in short-term investments must bear interest. The level of the annual cost of decommissioning for ratemaking purposes will

**CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS**

**Subchapter J. COSTS, RATES AND TARIFFS.**

**DIVISION 1. RETAIL RATES.**

§25.231(b)(1)(F)(i) continued

be determined in each rate case based on an allowance for contingencies of 10% of the cost of decommissioning, the most current information reasonably available regarding the cost of decommissioning, the balance of funds in the decommissioning trust, anticipated escalation rates, the anticipated return on the funds in the decommissioning trust, and other relevant factors. The annual amount for the cost of decommissioning determined pursuant to the preceding sentence shall be expressly included in the cost of service established by the commission's order.

- (ii) In the event that an electric utility implements an interim rate increase, including an increase filed under bond, an incremental change in decommissioning funding shall be included in the increase.
- (iii) An electric utility's decommissioning fund and trust balances will be reviewed in general rate cases. In the event that an electric utility does not have a rate case within a five-year period, the commission, on its own motion or on the motion of the commission's Office of Regulatory Affairs, the Office of Public Utility Counsel, or any affected person, may initiate a proceeding to review the electric utility's decommissioning cost study and plan, and the balance of the trust.
- (iv) An electric utility shall perform, or cause to be performed, a study of the decommissioning costs of each nuclear generating unit that it owns or in which it leases an interest. A study or a redetermination of the previous study shall be performed at least every five years. The study or redetermination should consider the most current information reasonably available on the cost of decommissioning. A copy of the study or redetermination shall be filed with the commission and copies provided to the commission's Office of Regulatory Affairs and the Office of Public Utility Counsel. An electric utility's most recent decommissioning study or redeterminations shall be filed with the commission within 30 days of the effective date of this subsection. The five year requirement for a new study or redetermination shall begin from the date of the last study or redetermination.

- (G) Accruals credited to reserve accounts for self-insurance under a plan requested by an electric utility and approved by the commission. The commission shall consider approval of a self insurance plan in a rate case in which expenses or rate base treatment are requested for a such a plan. For the purposes of this section, a self insurance plan is a plan providing for accruals to be credited to reserve accounts. The reserve accounts are to be charged with property and liability losses which occur, and which could not have been reasonably anticipated and included in operating and maintenance expenses, and are not paid or reimbursed by commercial insurance. The commission will approve a self insurance plan to the extent it finds it to be in the public interest. In order to establish that the plan is in the public interest, the electric utility must present a cost benefit analysis performed by a qualified independent insurance consultant who demonstrates that, with consideration of all costs, self-insurance is a lower-cost alternative than commercial insurance and the ratepayers will receive the benefits of the self insurance plan. The cost benefit analysis shall present a detailed analysis of the appropriate limits of self insurance, an analysis of the appropriate annual accruals to build a reserve account

**CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS**

**Subchapter J. COSTS, RATES AND TARIFFS.**

**DIVISION 1. RETAIL RATES.**

**§25.231(b)(1)(G) continued**

for self insurance, and the level at which further accruals should be decreased or terminated.

(H) Postretirement benefits other than pensions (known in the electric utility industry as "OPEB"). For ratemaking purposes, expense associated postretirement benefits other than pensions (OPEB) shall be treated as follows:

- (i) OPEB expense shall be included in an electric utility's cost of service for ratemaking purposes based on actual payments made.
- (ii) An electric utility may request a one-time conversion to inclusion of current OPEB expense in cost of service for ratemaking purposes on an accrual basis in accordance with generally accepted accounting principles (GAAP). Rate recognition of OPEB expense on an accrual basis shall be made only in the context of a full rate case.
- (iii) An electric utility shall not be allowed to recover current OPEB expense on an accrual basis until GAAP requires that electric utility to report OPEB expense on an accrual basis.
- (iv) For ratemaking purposes, the transition obligation shall be amortized over 20 years.
- (v) OPEB amounts included in rates shall be placed in an irrevocable external trust fund dedicated to the payment of OPEB expenses. The trust shall be established no later than six months after the order establishing the OPEB expense amount included in rates. The electric utility shall make deposits to the fund at least once per year. Deposits on the fund shall include, in addition to the amount included in rates, an amount equal to fund earnings that would have accrued if deposits had been made monthly. The funding requirement can be met with deposits made in advance of the recognition of the expense for ratemaking purposes. The electric utility shall, to the extent permitted by the Internal Revenue Code, establish a postretirement benefit plan that allows for current federal income tax deductions for contributions and allows earnings on the trust funds to accumulate tax free.
- (vi) When an electric utility terminates an OPEB trust fund established pursuant to clause (v) of this subparagraph, it shall notify the commission in writing. If excess assets remain after the OPEB trust fund is terminated and all trust related liabilities are satisfied, the electric utility shall file, for commission approval, a proposed plan for the distribution of the excess assets. The electric utility shall not distribute any excess assets until the commission approves the disbursement plan.

(2) **Expenses not allowed.** The following expenses shall never be allowed as a component of cost of service:

- (A) legislative advocacy expenses, whether made directly or indirectly, including, but not limited to, legislative advocacy expenses included in professional or trade association dues;
- (B) funds expended in support of political candidates;
- (C) funds expended in support of any political movement;
- (D) funds expended promoting political or religious causes;
- (E) funds expended in support of or membership in social, recreational, fraternal, or religious clubs or organizations;
- (F) funds promoting increased consumption of electricity;
- (G) additional funds expended to mail any parcel or letter containing any of the items mentioned in subparagraphs (A)-(F) of this paragraph;

**CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS**

**Subchapter J. COSTS, RATES AND TARIFFS.**

**DIVISION 1. RETAIL RATES.**

**§25.231(b)(2) continued**

- (H) payments, except those made under an insurance or risk-sharing arrangement executed before the date of the loss, made to cover costs of an accident, equipment failure, or negligence at an electric utility facility owned by a person or governmental body not selling power within the State of Texas;
  - (I) costs, including, but not limited to, interest expense, of processing a refund or credit of sums collected in excess of the rate finally ordered by the commission in a case where the electric utility has put bonded rates into effect, or when the electric utility has otherwise been ordered to make refunds;
  - (J) any expenditure found by the commission to be unreasonable, unnecessary, or not in the public interest, including but not limited to executive salaries, advertising expenses, legal expenses, penalties and interest on overdue taxes, criminal penalties or fines, and civil penalties or fines.
- (c) **Return on invested capital.** The return on invested capital is the rate of return times invested capital.
- (1) **Rate of return.** The commission shall allow each electric utility a reasonable opportunity to earn a reasonable rate of return, which is expressed as a percentage of invested capital, and shall fix the rate of return in accordance with the following principles.
    - (A) The return should be reasonably sufficient to assure confidence in the financial soundness of the electric utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low because of changes affecting opportunities for investment, the money market, and business conditions generally.
    - (B) The commission shall consider efforts by the electric utility to comply with the statewide integrated resource plan, the efforts and achievements of the electric utility in the conservation of resources, the quality of the electric utility's services, the efficiency of the electric utility's operations, and the quality of the electric utility's management, along with other applicable conditions and practices.
  - (C) The commission may, in addition, consider inflation, deflation, the growth rate of the service area, and the need for the electric utility to attract new capital. The rate of return must be high enough to attract necessary capital but need not go beyond that. In each case, the commission shall consider the electric utility's cost of capital, which is the weighted average of the costs of the various classes of capital used by the electric utility.
    - (i) Debt capital. The cost of debt capital is the actual cost of debt at the time of issuance, plus adjustments for premiums, discounts, and refunding and issuance costs.
    - (ii) Equity capital. For companies with ownership expressed in terms of shares of stock, equity capital commonly consists of the following classes of stock.
      - (I) Common stock capital. The cost of common stock capital shall be based upon a fair return on its market value.
      - (II) Preferred stock capital. The cost of preferred stock capital is the actual cost of preferred stock at the time of issuance, plus an adjustment for premiums, discounts, and refunding and issuance costs.

**CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS**

**Subchapter J. COSTS, RATES AND TARIFFS.**

**DIVISION 1. RETAIL RATES.**

**§25.231(c) continued**

(2) **Invested capital; rate base.** The rate of return is applied to the rate base. The rate base, sometimes referred to as invested capital, includes as a major component the original cost of plant, property, and equipment, less accumulated depreciation, used and useful in rendering service to the public. Components to be included in determining the overall rate base are as set out in subparagraphs (A)-(F) of this paragraph.

- (A) Original cost, less accumulated depreciation, of electric utility plant used by and useful to the electric utility in providing service.
  - (i) Original cost shall be the actual money cost, or the actual money value of any consideration paid other than money, of the property at the time it shall have been dedicated to public use, whether by the electric utility which is the present owner or by a predecessor.
  - (ii) Reserve for depreciation is the accumulation of recognized allocations of original cost, representing recovery of initial investment, over the estimated useful life of the asset. Depreciation shall be computed on a straight line basis or by such other method approved under subsection (b)(1)(B) of this section over the expected useful life of the item or facility.
  - (iii) Payments to affiliated interests shall not be allowed as a capital cost except as provided in the Public Utility Regulatory Act §36.058.
- (B) Working capital allowance to be composed of, but not limited to the following:
  - (i) Reasonable inventories of materials, supplies, and fuel held specifically for purposes of permitting efficient operation of the electric utility in providing normal electric utility service. This amount excludes appliance inventories and inventories found by the commission to be unreasonable, excessive, or not in the public interest.
  - (ii) Reasonable prepayments for operating expenses. Prepayments to affiliated interests shall be subject to the standards set forth in the Public Utility Regulatory §36.058.
  - (iii) A reasonable allowance for cash working capital. The following shall apply in determining the amount to be included in invested capital for cash working capital:
    - (I) Cash working capital for electric utilities shall in no event be greater than one-eighth of total annual operations and maintenance expense, excluding amounts charged to operations and maintenance expense for materials, supplies, fuel, and prepayments.
    - (II) For electric cooperatives, river authorities, and investor-owned electric utilities that purchase 100% of their power requirements, one-eighth of operations and maintenance expense excluding amounts charged to operations and maintenance expense for materials, supplies, fuel, and prepayments will be considered a reasonable allowance for cash working capital.
    - (III) Operations and maintenance expense does not include depreciation, other taxes, or federal income taxes, for purposes of subclauses (I), (II), and (V) of this clause.
    - (IV) For all investor-owned electric utilities a reasonable allowance for cash working capital, including a request of zero, will be determined by the use of a lead-lag study. A lead-lag study will be performed in accordance with the following criteria:

**CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS**

**Subchapter J. COSTS, RATES AND TARIFFS.**

**DIVISION 1. RETAIL RATES.**

**§25.231(c)(2)(B)(iii)(IV) continued**

- (-a-) The lead-lag study will use the cash method; all non-cash items, including but not limited to depreciation, amortization, deferred taxes, prepaid items, and return (including interest on long-term debt and dividends on preferred stock), will not be considered.
  - (-b-) Any reasonable sampling method that is shown to be unbiased may be used in performing the lead-lag study.
  - (-c-) The check clear date, or the invoice due date, whichever is later, will be used in calculating the lead-lag days used in the study. In those cases where multiple due dates and payment terms are offered by vendors, the invoice due date is the date corresponding to the terms accepted by the electric utility.
  - (-d-) All funds received by the electric utility except electronic transfers shall be considered available for use no later than the business day following the receipt of the funds in any repository of the electric utility (e.g. lockbox, post office box, branch office). All funds received by electronic transfer will be considered available the day of receipt.
  - (-e-) For electric utilities the balance of cash and working funds included in the working cash allowance calculation shall consist of the average daily bank balance of all non-interest bearing demand deposits and working cash funds.
  - (-f-) The lead on federal income tax expense shall be calculated by measurement of the interval between the mid-point of the annual service period and the actual payment date of the electric utility.
  - (-g-) If the cash working capital calculation results in a negative amount, the negative amount shall be included in rate base.
- (V) If cash working capital is required to be determined by the use of a lead-lag study under the previous subclause and either the electric utility does not file a lead lag study or the electric utility's lead-lag study is determined to be so flawed as to be unreliable, in the absence of persuasive evidence that suggests a different amount of cash working capital, an amount of cash working capital equal to negative one-eighth of operations and maintenance expense including fuel and purchased power will be presumed to be the reasonable level of cash working capital.
- (C) Deduction of certain items which include, but are not limited to, the following:
- (i) accumulated reserve for deferred federal income taxes;
  - (ii) unamortized investment tax credit to the extent allowed by the Internal Revenue Code;
  - (iii) contingency and/or property insurance reserves;
  - (iv) contributions in aid of construction;
  - (v) customer deposits and other sources of cost-free capital;

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**DIVISION 1. RETAIL RATES.**

**§25.231(c)(2) continued**

- (D) Construction work in progress (CWIP). The inclusion of construction work in progress is an exceptional form of rate relief. Under ordinary circumstances the rate base shall consist only of those items which are used and useful in providing service to the public. Under exceptional circumstances, the commission will include construction work in progress in rate base to the extent that:
- (i) the electric utility has proven that:
    - (I) the inclusion is necessary to the financial integrity of the electric utility; and
    - (II) major projects under construction have been efficiently and prudently planned and managed. However, construction work in progress shall not be allowed for any portion of a major project which the electric utility has failed to prove was efficiently and prudently planned and managed; or
  - (ii) for a project ordered by the commission under §25.199 of this title (relating to Transmission Planning, Licensing and Cost-recovery for Utilities within the Electric Reliability Council of Texas), if the commission determines that conditions warrant the inclusion of CWIP in rate base, the project is being efficiently and prudently planned and managed, and there will be a significant delay between initial investment and the initial cost recovery for a transmission project.
- (E) Self-insurance reserve accounts. If a self insurance plan is approved by the commission, any shortages to the reserve account will be an increase to the rate base and any surpluses will be a decrease to the rate base. The electric utility shall maintain appropriate books and records to permit the commission to properly review all charges to the reserve account and determine whether the charges being booked to the reserve account are reasonable and correct.
- (F) Requirements for post test year adjustments.
- (i) Post test year adjustments for known and measurable rate base additions (increases) to historical test year data will be considered only as set out in subclauses (I)-(IV) of this clause.
    - (I) Where the addition represents plant which would appropriately be recorded:
      - (-a-) for investor-owned electric utilities in FERC account 101 or 102;
      - (-b-) for electric cooperatives, the equivalent of FERC accounts 101 or 102.
    - (II) Where each addition comprises at least 10% of the electric utility's requested rate base, exclusive of post test year adjustments and CWIP.
    - (III) Where the plant addition is deemed by this commission to be in-service before the rate year begins.
    - (IV) Where the attendant impacts on all aspects of a utility's operations (including but not limited to, revenue, expenses and invested capital) can with reasonable certainty be identified, quantified and matched. Attendant impacts are those that reasonably follow as a consequence of the post test year adjustment being proposed.



**CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS**

**Subchapter J. COSTS, RATES AND TARIFFS.**

**DIVISION 1. RETAIL RATES.**

**§25.231(c)(2)(F) continued**

- (ii) Each post test year plant adjustment will be included in rate base at:
  - (I) the reasonable test year-end CWIP balance, if the addition is constructed by the electric utility; or,
  - (II) the reasonable price, if the addition represents a purchase, subject to original cost requirements, as specified in Public Utility Regulatory Act §36.053.
- (iii) Post test year adjustments for known and measurable rate base decreases to historical test year data will be allowed only when clause (i)(IV) of this subparagraph and the criteria described in subclauses (I) and (II) of this clause are satisfied.
  - (I) The decrease represents:
    - (-a-) plant which was appropriately recorded in the accounts set forth in clause (i)(I) of this subparagraph;
    - (-b-) plant held for future use;
    - (-c-) CWIP (mirror CWIP is not considered CWIP); or
    - (-d-) an attendant impact of another post test year adjustment.
  - (II) Plant that has been removed from service, mothballed, sold, or removed from the electric utility's books prior to the rate year.

**ONCOR ELECTRIC DELIVERY COMPANY LLC**  
**LEAD-LAG STUDY**

**Introduction**

Pursuant to 16 Texas Administrative Code (“TAC”) §25.231(c)(2)(B)(iii)(IV), the Public Utility Commission of Texas (“Commission”), provides investor-owned electric utilities a reasonable allowance for cash working capital (“CWC”) that is to “be determined by the use of a lead-lag study.” In general, a lead-lag study serves to calculate the level of investor-supplied capital necessary to fund electric utility operating activities during the period of time between when electric delivery service is provided to customers and the subsequent receipt of revenues related to performing such delivery services.

Oncor Electric Delivery Company LLC (“Oncor” or “Company”) has performed this Lead-Lag Study to determine the working capital requirements necessary to fund its day-to-day operating activities. The Lead-Lag Study reviews cash-related transaction costs reflected in the Company’s consolidated books and records that occurred during the twelve-month study period of October 1, 2020 through September 30, 2021 (“Lead-Lag Study Test Year”). Oncor and Oncor NTU have proposed to consolidate their rates in this proceeding, and therefore this Lead-Lag Study also consolidates these two entities as applicable for purposes of this study. Therefore all references to Oncor or the Company also include Oncor NTU where applicable. In turn, the number of revenue lag days and expense lead days arising from the study are then applied to operating revenues and expenses, as adjusted, for the calendar year ended December 31, 2021 (“2021 Test-Year”) to calculate the Company’s CWC requirement.

The analysis provides a basis for quantifying the leads associated with the receipt of goods and services prior to payment and the lags associated with the delay in the receipt of funds for electric delivery service previously provided. The measurement of these leads and lags is expressed in days for various categories of expenses and revenues. The lag for revenue collection is netted

1 against the various expense leads, and the resulting "net" lead or lag is multiplied  
2 by *pro forma* daily revenue requirements for various cost of service categories.  
3 When added to the average daily bank balances and other general working funds  
4 of the Company, the net summation of these *pro forma* daily revenue  
5 requirements totals to the net CWC allowance requirement.

6 The following sections of this Lead-Lag Study describe the methodology  
7 and underlying principles related to measuring the key components used in  
8 calculating the lag days for revenue collection and the lead days for expense  
9 payments. In addition, adjusting items necessary to normalize various elements  
10 of the CWC allowance are also discussed.

### 11 Revenue Analysis

12  
13  
14 Revenue lag days represent the amount of time between (i) the midpoint  
15 of the delivery of service to customers and (ii) the receipt of the revenue related  
16 to such service. A utility's revenue lag day total typically consists of four key  
17 components: (1) the service period lag; (2) the billing lag that reflects the time  
18 required to process and issue bills; (3) the collection lag that identifies the time  
19 delay between the issuing of bills and the receipt of the billed revenues; and (4) the  
20 fund clearance lag that reflects any delay in the bank's clearance of deposited  
21 check payments. The total number of days produced by the four components  
22 represents the average amount of time between the delivery of service to  
23 customers and the receipt of the related revenues for such service.

24 The first of these four components, the "service period," measures the  
25 time span over which services are provided. The significance of this measure is  
26 that it establishes the "common point" from which the timing difference between  
27 cost incurrence and revenue recovery is measured. Theoretically, that point may  
28 be at the beginning of the period, at the end of the period, or at some point in  
29 between. In determining a utility's CWC requirement, the traditional approach  
30 has been to assume that the mid-point of the customer billing cycle reflects the  
31 average length of time between delivery of power to an end-use premise and the

1 collection of a billing meter reading. This traditional approach is based on an  
2 assumption that power delivery and demand are constant throughout a  
3 customer's billing cycle, and the Company followed this traditional approach in  
4 this Lead-Lag Study. To simplify this computational process, the study applies  
5 the average of 30.44 days per month over an annual period (*i.e.*,  $365.25 \text{ days} /$   
6  $12 \text{ months} = 30.4375 \text{ days}$ , or 30.44 days rounded to two decimal places). The  
7 calculated "common point" for measuring service reflects the mid-point of the  
8 average 30.44 days in a billing cycle, or 15.22 days (*i.e.*,  $30.44 \text{ days} / 2 = 15.22$   
9 days).

10 The second component of the revenue lag reflects the time consumed in  
11 the billing process, or the "billing lag." The Company utilizes cycle billing and  
12 typically will capture the meter reading value from Oncor's Advanced Metering  
13 System ("AMS") at midnight on the specified meter reading date for each cycle.  
14 Following the download of meter data from AMS, Oncor's Customer Care &  
15 Billing ("CC&B") system will produce an invoice on the subsequent business day.  
16 In general, meter readings taken on a Monday will be invoiced on Tuesday and  
17 meter readings taken on a Friday will be invoiced on Monday of the next week (or  
18 the next non-holiday weekday). A random sample of invoices was utilized to  
19 measure the time between the meter reading date and the invoice date. The  
20 sum of the time period from the midpoint of the meter reading period to midnight  
21 on the meter reading date plus the average period from the meter reading date to  
22 the invoice date results in the total billing lag utilized for purposes of the Lead-  
23 Lag Study. As shown on my workpaper WP/II-B-9/1-1-2, the average period of  
24 time to reflect the meter reading process, uploading of metering data, and the  
25 preparation of retail electric provider ("REP") invoicing is a total of 2.803 days.

26 The third component, the "collection lag," reflects the time between billing  
27 for the services rendered and the receipt from customers of the revenues billed.  
28 Oncor's revenue data is contained in two systems – CC&B and the Financial  
29 Information System ("FIM"). As measured in the Lead-Lag Study Test Year,  
30 approximately 87% of revenues are billed through the CC&B system. For the  
31 CC&B revenues, this study uses the daily accounts receivable balances to

1 determine collection lag. For the FIM revenues, this study uses all of the  
2 invoices during the Lead-Lag Study Test Year to calculate the dollar-weighted  
3 average of the days between the billing date and the collection date. As shown  
4 on workpaper WP/II-B-9/1-1, the average collection lag for the CC&B component  
5 totals 34.716 days and the FIM collection lag component totals 36.019 days.

6 This CC&B collection lag calculated in the Lead-Lag Study aligns with the  
7 expected collection lag under Section 4.4.5 of Oncor's Tariff for Retail Delivery  
8 Service, which states, in part, that: "The Company shall specify the due date on  
9 the invoice, and the due date shall be the 35<sup>th</sup> calendar day after the transmittal  
10 date of the Valid Invoice, unless the 35<sup>th</sup> day falls on a weekend or Banking  
11 Holiday, in which case the due date shall be the following Business Day that is  
12 not a Banking Holiday." (Also see 16 TAC § 25.214(d), § 4.4.5 of the Pro-forma  
13 Retail Delivery Tariff.) The separate CC&B and FIM revenue collection lag  
14 components were dollar-weighted to calculate the overall revenue lag days.

15 The fourth component of the revenue recovery lag, the "cash receipts  
16 float," represents the time between the receipt of funds from customers until the  
17 funds clear the banks and are available to the Company. All payments from the  
18 REPs are made electronically; therefore, the cash receipts float is zero.

19 As summarized on Exhibit AT-3, page 4 and shown in WP/II-B-9/1, the  
20 average overall revenue lag is 52.90 days.

## 21 Expense Analysis

### 22 **Operation and Maintenance Expenses**

23  
24 In determining the lead days for operation and maintenance expenses  
25 ("O&M"), total system O&M expenses were first separated into two groups –  
26 Labor and Non-labor. Labor expenses were divided into two categories: payroll  
27 costs and incentive pay. Non-labor O&M costs were divided into five categories:  
28 (1) affiliate charges, (2) Transmission Cost of Service ("TCOS") charges, (3)  
29 amortized O&M expenses, (4) pension and supplemental retirement benefits, (5)  
30 other post-employment benefits ("OPEBs"), and (6) other third-party O&M  
31

1 expenses. The CWC study independently measures the number of lead days for  
2 each of these five Non-Labor O&M expense groups.

3  
4 Labor Expenses – Payroll

5 The lead days for payroll were based upon the Company's wage payment  
6 process that employs both semi-monthly and bi-weekly pay periods. This  
7 calculation produces the number of total days between the middle of the period  
8 for which employees' costs were incurred and the disbursement of the payments.  
9 As shown on WP/II-B-9/2, approximately 82.87% of the Company's payroll  
10 expense is paid through the semi-monthly pay period process. The lead days for  
11 semi-monthly payroll reflect the pay periods ending on the 10<sup>th</sup> and the 25<sup>th</sup> day  
12 of each month. In general, semi-monthly paid employees are paid five days after  
13 the end of the first period and at the end of the month for the second period. Pay  
14 dates falling on weekends or Oncor-observed holidays are paid on the first  
15 preceding workday. Pay dates falling on a banking holiday, that is not an Oncor-  
16 observed holiday, are paid on the first preceding non-banking holiday. The lead  
17 days for semi-monthly payroll costs were computed by determining the average  
18 days of service being compensated and adding the days between the end of  
19 each service period and the payment to employees. This calculation produces  
20 the number of total days between the middle of the period for which employee  
21 compensation costs were realized and the disbursement of the payments.  
22 Please refer generally to WP/II-B-9/2, WP/II-B-9/3 and associated workpapers for  
23 details.

24 For the bi-weekly payroll, the days were calculated by determining the 7-  
25 day midpoint of the service period (14-day service period divided by 2) and the  
26 days between the end of the service period ending on Sunday and the payment  
27 made to employees on the following Friday. This calculation produces a total of  
28 the days between the midpoint of the service period and the normal  
29 disbursement of these costs. If the Friday pay day falls on a bank holiday,  
30 employees are paid on the immediately preceding business day. During the  
31 Lead-Lag Study Test Year, all paydays for bi-weekly employees were on their

1 scheduled Friday except for one, resulting in an average payment lag of 4.96  
2 days (*i.e.*, calculating 25 bi-weekly periods at 5 payment lag days and 1 bi-  
3 weekly period at 4 payment lag days).

4 The vast majority (99.77% as shown on WP/II-B-9/2-1) of wages are paid  
5 by direct deposit, with the remainder being paid by manual check. Direct deposit  
6 payments clear on the payment date. A random, statistically valid sample of  
7 manual payroll check clearing times was used to determine the check float  
8 applicable to manual check payments. As summarized on Exhibit AT-3, page 5  
9 and shown on WP/II-B-9/2, the average lead for payroll-related labor costs is  
10 12.11 days.

#### 11 12 Labor Expenses – Incentive Compensation

13 Oncor's Performance Enhancement Plan ("PEP"), Executive Annual  
14 Incentive Plan ("EAIP") and Long-Term Incentive Plan ("LTIP") are based on  
15 calendar year performance and are paid in the month of March. During the Lead-  
16 Lag Study Test Year, these plans were based on calendar year 2020  
17 performance, which was paid on March 8, 2021, and calendar year 2021  
18 performance, which was paid on March 7, 2022

19 The lead days associated with incentive plans were calculated from the  
20 mid-point of the performance measurement period to the date of payment. The  
21 manual check adjustment was then applied to applicable incentive programs and  
22 the amounts were dollar-weighted in order to develop the overall lead days for  
23 the Company's incentive pay programs. As summarized on Exhibit AT-3, page 6  
24 and shown on WP/II-B-9/3, the average lead for Oncor's incentive-based  
25 compensation is 249.35 days. Please refer to WP/II-B-9/3 and associated  
26 workpapers for details.

#### 27 28 Non-labor Expenses – Affiliate Charges - Sempra

29 The lead days on affiliate charges were calculated using the payment due  
30 date set forth in the agreements amount the affiliated entities. In all instances,  
31 the payment due date was later than the date that the charges were actually

1 paid. The number of lead days from the midpoint of the month being billed to  
2 the corresponding payment due date. Because payments were made  
3 electronically, no check float lead was assigned. Exhibit AT-3 Page 7, provides a  
4 summary of the calculation of the 44.96 day average lead for affiliate charges.

5  
6 Non-labor Expenses – Affiliate Charges - Other

7 The lead days on Affiliate Charges – Other were calculated using a randomized  
8 sample as explained in the section titled Non-labor Expenses – Other Third-party  
9 Transactions Expenses. The expenses related to Affiliate Charges – Other are  
10 part of the normal accounts payable process.

11 Non-labor Expenses – TCOS Charges

12 TCOS Charges were separated into Oncor and non-Oncor transmission  
13 service providers. The net lead/lag days on the Oncor TCOS charges are zero  
14 because these amounts are internal to Oncor. The expense lead days for non-  
15 Oncor TCOS charges were measured from the midpoint of the service period to  
16 the payment date. Oncor is billed the TCOS charges monthly for approximately  
17 30-31 days of service, so the average service period was calculated using  
18 365.25 days divided by 12 months which equals 30.4375 days (rounded to  
19 30.44). The period from the midpoint of the service period to the end of the  
20 service period is 15.22 days (30.44 divided by 2). Oncor pays these charges  
21 electronically 35 days after the end of the service period in conformance with  
22 Commission requirements under 16 TAC § 25.202(a); therefore, as shown on  
23 Exhibit AT-3, page 8, the overall expense lead days for non-Oncor TCOS  
24 charges is the sum of 15.22 days plus 35 days, which equals 50.22 days.  
25 Because all payments are made electronically, no check float lead was assigned.  
26 Please refer to WP/II-B-9/5 for details.

27  
28 Non-labor Expenses – Amortized O&M Expenses

29 16 TAC §25.231(c)(2)(B)(iii)(IV)(-a-) states that: “The lead-lag study will  
30 use the cash method; all non-cash items, including but not limited to ...  
31 amortization, ... will not be considered.” In conformance with this requirement,



1 the amortized O&M expenses were excluded from this Lead-Lag Study.

2 16 TAC §25.231(c)(2)(B)(iii)(IV)(-a-) states that: “The lead-lag study will  
3 use the cash method; all non-cash items, including but not limited to ... prepaid  
4 items, ... will not be considered.” In conformance with this requirement, Oncor  
5 witness Mr. W. Alan Ledbetter has provided the amount of the 2021 Test-Year  
6 prepaid O&M expense amounts that have been removed from this Lead-Lag  
7 Study (as shown on Exhibit AT-3, page 2). In addition, other non-cash O&M  
8 expense amounts were excluded from the CWC requirement. These additional  
9 adjustment costs are related to the amortization of regulatory assets and capital  
10 leases already included in net plant. The adjustments reflect a total of about  
11 \$216 million of Oncor’s requested 2021 Test-Year allowance for O&M expense,  
12 as shown in column (b), lines 12-28 of page 1 of Exhibit AT-3. These  
13 amortization amounts have been provided by Oncor witness Mr. W. Alan  
14 Ledbetter, so that their effect can be removed from the CWC allowance  
15 determination. The removal of these costs is necessary to remove the non-cash  
16 amortization of O&M expenses that are included in adjusted 2021 Test-Year  
17 revenue requirement total. These include the annual amortization amounts of  
18 rate case expenses, deferred benefits costs, deferred losses arising from REP  
19 payment defaults, deferred AMS-related expenses, and self-insurance reserve  
20 historical loss amounts. Any adjustments to the Company’s requested rate base  
21 treatment for these costs would likely result in the need to revise the calculation  
22 of the CWC allowance.

23

24 Non-labor Expenses – Pension and Supplemental Retirement Benefits

25 During the Lead-Lag Study Test Year, there were no cash contributions  
26 related to the 2021 benefit period made in the 2021 Test-Year to the Company’s  
27 pension plan. Thus, this Lead-Lag Study reflects the payment due dates  
28 specified by the Pension Protection Act of 2006 (“PPA-2006”), since the specified  
29 payment dates are known and measurable. As shown on pages 9-10 of Exhibit  
30 AT-3, PPA-2006 dictates that one-fourth of a company’s defined benefit plan  
31 contributions will be deposited in a qualified trust on the 15th day of the fourth

1 month, seventh month, tenth month, and first subsequent month of the company's pension plan year. Since Oncor's defined benefit pension plan reflects a calendar year, the specified dates are April 15, July 15, and October 15 of the subject year, and January 15 of the subsequent year. Application of these dates provides a *pro-forma* expense lead of 59.25 days for pension expense. The *pro-forma* pension plan payment amounts shown in WP/II-B-9/6-4 reflect equalized quarterly payments totaling \$29.6 million, which is the sum of the pension payments paid in the Lead-Lag Test Year.

In addition, Oncor's contributions to its supplemental retirement plan are made on a monthly basis. Weighting the expense lead for the supplemental retirement plan with the pension plan expense lead provides a weighted average payment lead of 53.51 days for pension and supplemental retirement benefits expense.

#### Non-labor Expenses – Other Postemployment Benefits

Consistent with 16 TAC §25.231(b)(1)(H), Oncor makes contributions to its qualified irrevocable external trust fund dedicated to the payment of other postemployment benefits ("OPEBs", sometimes also referred to as postretirement benefits other than pensions) on a monthly basis. Specifically, 16 TAC §25.231(b)(1)(H)(v) provides that amounts included in rates for OPEBs:

... shall be placed in an irrevocable external trust fund dedicated to the payment of OPEB expenses. ... The electric utility shall make deposits to the fund at least once per year. Deposits on the fund shall include, in addition to the amount included in rates, an amount equal to fund earnings that would have accrued if deposits had been made monthly. The funding requirement can be met with deposits made in advance of the recognition of the expense for ratemaking purposes.

As shown on page 11 of Exhibit AT-3, the weighted average payment lead for OPEB expense is 10.71 days. Please refer to WP/II-B-9/6-5 for details.

#### Non-labor Expenses – Other Third-party Transaction Expenses

The measure of lead days for Other Third-party Transaction expenses has

1        been calculated based upon a review of a randomized, statistically valid sample  
2        of expenses recorded during the Lead-Lag Study Test Year for Oncor's  
3        Transmission, Distribution, and Corporate accounting functions.

4                The Company's Internal Audit Department calculated a statistical sample  
5        size using the following parameters for Distribution and Transmission:

6                                Confidence: 95%  
7                                Precision:    ±10%  
8                                Error Rate:    5

9        This resulted in a sample size of 116 transactions each from the Distribution  
10       business unit and the Transmission business unit. A random sample was then  
11       selected by stratifying the population of each business unit's transactions using  
12       the following parameters: item amounts less than \$10,000; item amounts  
13       between and including \$10,000 and \$25,000; and item amounts greater than  
14       \$25,000. The number of sample items selected for each stratum was based on  
15       the total number of transactions within that parameter for each business unit. In  
16       total, 232 transactions of the approximate 135,500 total third-party transactions  
17       recorded during the Lead-Lag Study Test Year were analyzed.

18                In addition, a randomly selected sample of ten transactions related to  
19       Corporate activities were analyzed as part of the Third-Party O&M review. The  
20       transactions reflected in the accounting records of the Corporate function reflect  
21       less than 0.3% of the total population of transactions during the Lead-Lag Study  
22       Test Year, and the results of this smaller sample component have been dollar-  
23       weighted with the other 99.7% of the O&M expense population.

24                Consistent with recent lead-lag studies accepted by the Commission,  
25       Oncor's study estimates the midpoint of the benefit period independently for each  
26       invoice rather than assuming that the invoice date reflects the vendor's service  
27       period for all invoices. Each of the sample items was carefully examined to  
28       determine the benefit period and the invoice due date. The available original  
29       source documentation is included in the relied-upon documents supporting this  
30       Lead-Lag Study. Lead days were calculated from the midpoint of the benefit  
31       period (if available) until the later of the invoice due date or the actual payment  
32       cleared date, as prescribed in 16 TAC §25.231(c)(2)(B)(iii)(IV)(c-).

1           The benefit period was determined by examining each invoice and the  
2 type of expense. Many invoices clearly state the benefit period—for example, an  
3 invoice for employee medical health claims states the exact period covered by  
4 the payment. For goods, the benefit period conservatively was assumed to be  
5 on the date that the goods were delivered or shipped (if delivery date is not  
6 shown). For invoices for legal counsel services, the benefit period is the mid-  
7 point of the month that services were rendered to Oncor. If no other information  
8 was available, the invoice date was used as the assumed date of the benefit  
9 period. Best judgment was used in examining each invoice to determine a  
10 conservative and realistic benefit period.

11           The lead day amount for each invoice was dollar-weighted and totaled to  
12 determine the overall lead days for each business unit. The business unit lead  
13 days were dollar-weighted using the total population dollars for each respective  
14 business unit, and the combination of these weighted lead days yielded the  
15 overall Other Third-Party O&M lead days. As shown on Exhibit AT-3, Page 12,  
16 the weighted-dollar average expense lead calculated in this sampling analysis of  
17 other third-party O&M transactions is approximately 46.93 days. Please refer to  
18 WP/II-B-9/6 and associated workpapers for details.

19

#### 20 **Current Federal Income Taxes**

21           The lead days for federal income taxes were calculated by measuring the  
22 days between the midpoints of the annual calendar year service periods (as the  
23 tax is incurred throughout the year) and the statutory payment due dates.  
24 Payment of at least 100% of the estimated tax for the year must be made in  
25 quarterly payments on April 15<sup>th</sup>, June 15<sup>th</sup>, September 15<sup>th</sup>, and December 15<sup>th</sup>.  
26 If the scheduled payment date falls on a weekend or holiday, the quarterly  
27 payment is due on the first workday after the indicated date. As documented on  
28 Exhibit AT-3, page 13, the average lead for payment of federal income taxes is  
29 36.25 days. Please refer to WP/II-B-9/7 for details.

30

1       **Deferred Federal Income Tax Expense**

2               16 TAC §25.231(c)(2)(B)(iii)(IV)(-a-) states that: “The lead-lag study will  
3 use the cash method; all non-cash items, including but not limited to ... deferred  
4 taxes, ... will not be considered.” In conformance with this rule, deferred federal  
5 income tax was excluded from this Lead-Lag Study.

6  
7       **Taxes Other Than Income Taxes**

8               This group of other taxes consists of: (1) payroll-related taxes [Federal  
9 Insurance Contributions Act (“FICA”), Federal Unemployment Tax Act (“FUTA”),  
10 and State Unemployment Tax Act (“SUTA”)]; (2) state gross margin taxes; (3)  
11 local franchise taxes; and (4) ad valorem taxes.

12  
13       Payroll-Related Taxes

14               The expense lead for FICA (*i.e.*, Social Security and Medicare) payroll  
15 taxes was calculated from the midpoint of the applicable work period to the  
16 payment date of the tax. Currently, the payment of FUTA/SUTA taxes is heavily  
17 weighted in the first quarter of a calendar year, since most Oncor employees  
18 reach the tax ceiling early in the year. However, the unemployment benefit  
19 period is the entire calendar year, resulting in most of the tax being paid well  
20 before the mid-point of the calendar year. The calculation of lead days for  
21 FUTA/SUTA reflects the difference between the statutory due dates (which is  
22 generally after Oncor’s actual payment date) and the mid-point of the calendar  
23 year. Page 14 of Exhibit AT-3 provides a summary of the 11.66 day calculation  
24 of the average lead for payroll-related taxes. Please refer to WP/II-B-9/8 and  
25 associated workpapers for details.

26  
27       State Gross Margin Taxes

28               The Lead-Lag Study Test Year reflects the payment of the Texas State  
29 Gross Margin Tax (“GMT”) attributable to portions of the operating privilege  
30 periods of calendar year 2020 and the 2021 Test-Year. Applying those  
31 payments to the annual payment date of May 15, 2020 (for the 2020 operating

1 privilege period) and May 15, 2021 (for the 2021 operating privilege period)  
2 results in an average lag of 47.17 days for the Texas GMT. This is the same  
3 approach Oncor has used in its two most recent base rate cases. Please refer to  
4 WP/II-B-9/9 for details.

5  
6  
7 Local Gross Receipts Taxes

8 To determine the average lead days for local gross receipts agreement  
9 payments (also called local franchise taxes), this Lead-Lag Study analyzes  
10 Oncor's 25 largest local gross receipts tax payments, which account for about  
11 69% of the total population of Oncor's annual local gross receipts tax payments.  
12 As summarized on page 16 of Exhibit AT-3, the average lead for local gross  
13 receipts agreement payments is estimated to be 54.99 days. Please refer to  
14 WP/II-B-9/10 for details.

15 Oncor witness Mr. W. Alan Ledbetter has provided the amount of the 2021  
16 Test-Year amortization of prepaid local gross receipts taxes totaling  
17 approximately \$205 million so that the amount of these pre-paid local gross  
18 receipts taxes could be removed from the CWC calculation, as shown on Exhibit  
19 AT-3, page 3.

20  
21 Ad Valorem Taxes

22 The calculation of lead days for ad valorem taxes is based on Oncor's 25  
23 largest ad valorem tax payments, which represent approximately 68% of the total  
24 amount of ad valorem taxes paid. The average lead days for ad valorem taxes  
25 reflect the period from the mid-point of the benefit period through the date the  
26 payment was cleared through the banking system. As shown on Exhibit AT-3,  
27 page 17, the average lead for ad valorem taxes is 209.90 days. Please refer to  
28 WP/II-B-9/11 for details.

29  
30 **Depreciation Expense and Return**

31 16 TAC §25.231(c)(2)(B)(iii)(IV)(-a-) states that: "The lead-lag study will

1 use the cash method; all non-cash items, including but not limited to  
2 depreciation, ... and return (including interest on long-term debt and dividends on  
3 preferred stock), will not be considered.” In conformance with this rule, the  
4 depreciation expense and return levels shown in column (b), lines 38 and 40, of  
5 page 1 of Exhibit AT-3, were excluded from this Lead-Lag Study.

6  
7 **Other Working Capital Components**

8  
9 **Cash Balances**

10 This Lead-Lag Study reflects a reduction to CWC due to the check float  
11 added to the expense leads for all expenses paid by check. Because the  
12 Company cannot control when checks will clear the bank and because of other  
13 minimum balance requirements imposed by banks, the Company must maintain  
14 certain levels of available cash in its bank accounts. Therefore, the actual bank  
15 cash balances were included in CWC since these funds must be supplied by  
16 investors. During the 2021 Test-Year, the Company’s daily non-interest-bearing  
17 bank account balances averaged \$8,420,858. As shown on Exhibit AT-3, page  
18 18, this amount has been reflected in Oncor’s requested CWC allowance. The  
19 inclusion of average cash balances is consistent with 16 TAC  
20 §25.231(c)(2)(B)(iii)(IV)(-e-), which states that “...the balance of cash and  
21 working funds included in the working cash allowance calculation shall consist of  
22 the average daily bank balances of all non-interest bearing demand deposits and  
23 working cash funds.” Please refer to WP/II-B-9/12 for details.

24  
25 **Other CWC Components**

26 As summarized on Exhibit AT-3, page 19, the other cash working capital  
27 components include:

- 28
- payroll withholdings;
  - 29 • miscellaneous working funds (travel advances);
  - 30 • miscellaneous deferred debits and credits (adjusted to remove  
31 amounts later transferred to the self-insurance reserve);

- 1                   • home purchase plan; and
- 2                   • accounts receivable from employees.

3                   These components represent various assets and liabilities not explicitly  
4 identified elsewhere in the rate base, as well as deductions for non-investor  
5 sources of capital not explicitly deducted from rate base. Likewise, they are not  
6 directly measured in the analysis of O&M or other expenses and must be  
7 separately included in the CWC measure. The inclusion of this negative  
8 \$8,308,312 balance of working fund balances is consistent with 16 TAC  
9 §25.231(c)(2)(B)(iii)(IV)(-e-), which states that "...the balance of cash and  
10 working funds included in the working cash allowance calculation shall consist of  
11 the average daily bank balances of all non-interest bearing demand deposits and  
12 working cash funds." Please refer to WP/II-B-9/13 and associated workpapers  
13 for details.

14

15

**Conclusion**

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This Lead-Lag Study was performed to determine the amount of cash working capital that should be included in Oncor's rate base as of the end of the 2021 Test-Year. Revenue lag days and the number of lead days for major expense items have been calculated using actual average time spans when available, or through sampling techniques where the data was too voluminous, to perform an analysis of relevant transactions during the Lead-Lag Study Test Year. The calculation of CWC requirements resulting from this Lead-Lag Study is fair and reasonable, consistent with 16 TAC §25.231, economic reality (*i.e.*, actual cash effect), and relevant Commission precedent, and should be included in rate base.



2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
CASH WORKING CAPITAL REQUIREMENT SUMMARY  
FOR THE TEST-YEAR ENDING DECEMBER 31, 2021

Line No.	Description (a)	Adjusted Test Year Amount (b)	Amortization of Prepayments (c)	Exhibit AT-3 Page Ref (d)	Avg. Daily Expense (e)=(b)-(c)/365 25	Lag Days (Ref Exh AT-3, Page 4) (f)	Expense Lead Days (g)	Exhibit AT-3 Page Ref (h)	Net (Lead)/Lag (i)=(f)*(g)	Working Capital Requirement (j) = (e) * (i)
1	Operation & Maintenance Expenses									
2	Labor									
3	Payroll	\$ 272,201,095	-		\$ 745,246	52 90	(12.11)	Page 5	40.79	\$ 30,398,584
4	Incentive Comp	27,578,590	-		75,506	52.90	(249.35)	Page 6	(196.45)	\$ (14,833,166)
5	Non-Labor									
6	Affiliate Charges - Sempra	115,750	-		317	52 90	(44.96)	Page 7	7.94	2,516
7	Affiliate Charges - Other	3,506,574	1,108,749		6,565	52 90	(46.93)	Page 12	5.97	39,192
8	TCDS									
9	Oncor	517,244,509	-		1,416,138	-	-		-	-
10	Non-Oncor	1,135,277,512	-		3,108,220	52.90	(50.22)	Page 8	2.68	8,330,031
11	Wholesale Distribution Substation Service (Oncor NTU Dist to Oncor Dist)	13,295,686	-		36,402	-	-		-	-
12	Amortized O&M Expenses									
13	Amortization of Rate Case Expenses	1,646,626	-		4,508	-	-		-	-
14	Amortization of Deferred OPEB	(4,094,647)	-		(11,211)	-	-		-	-
15	Amortization of Deferred Pension	31,107,635	-		85,168	-	-		-	-
16	Amortization of Defaulted REPs	1,671,751	-		4,577	-	-		-	-
17	Amortization of AMS Related Expenses	132,830	-		364	-	-		-	-
18	Amortization of VDSS Reg Asset	15,053,414	-		41,214	-	-		-	-
19	Amortization of NTU Study Cost/Transition to Completion	520,569	-		1,425	-	-		-	-
20	Amortization of Capital Structure Refund	16,329	-		45	-	-		-	-
21	Amortization of Docket 48325 Tax Refund	473,661	-		1,297	-	-		-	-
22	Amortization of HB 2483 Mobile Gen & Relocation Costs	5,218	-		14	-	-		-	-
23	Amortization of Power Line Safety Act PURA 36066	1,502,680	-		4,114	-	-		-	-
24	Amortization of COVID19 Incremental Expense	6,923,725	-		18,956	-	-		-	-
25	Amortization of Sharyland Residential Interim Rates	125,473	-		344	-	-		-	-
26	Amortization of Non-Standard Metering Service	-	-		-	-	-		-	-
27	Amortization of Insurance Reserve	117,709,131	-		322,270	-	-		-	-
28	HB 2483 Mobile generator capital leases	449,450	-		1,231	-	-		-	-
29	Other Third-Party O&M									
30	Pension & Supplemental Retirement Benefits	22,359,776	-		61,218	52.90	(53.51)	Pages 9-10	(0.61)	(37,343)
31	Other Post-Employment Benefits	8,796,773	-		24,084	52.90	10.71	Page 11	63.61	1,531,999
32	Other O&M	620,668,333	45,890,378	Page 2	1,573,656	52.90	(46.93)	Page 12	5.97	9,394,728
33	Total O&M	\$ 2,794,288,343	-							
34										
35	Federal Income Taxes									
36	Current	\$ 95,424,803	-		261,259	52.90	(36.25)	Page 13	16.65	\$ 4,349,960
37	Deferred FIT & ITC	70,675,961	-		193,500	-	-		-	-
38	Total FIT	\$ 166,100,764	-							
39										
40	Taxes Other Than Income Taxes									
41	Payroll Taxes	\$ 17,840,666	-		48,845	52.90	(11.66)	Page 14	41.24	\$ 2,014,371
42	State Gross Margin Taxes	27,740,679	-		75,950	52.90	47.17	Page 15	100.07	7,600,300
43	Local Franchise Taxes	283,082,877	204,512,084	Page 3	215,115	52.90	(54.99)	Page 16	(2.09)	(449,591)
44	Ad Valorem Taxes	283,681,884	-		776,679	52.90	(209.90)	Page 17	(157.00)	(121,938,551)
45	Total Taxes Other Than Income Taxes	\$ 612,346,105	-							
46										
47	Depreciation Expense	\$ 924,809,855	-		2,531,991	-	0		-	\$ -
48										
49	Return	\$ 1,326,522,951	-		3,631,822	-	0		-	\$ -
50										
51	Subtotal	\$ 5,824,068,018	-							\$ (73,596,970)
52										
53	Average Daily Bank Balances							Page 18		\$ 8,420,858
54	Working Funds and Other							Page 19		(8,308,312)
55										
56	Total Cash Working Capital Requirement									\$ (73,484,424)

Working Papers

2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
PREPAID O&M AMORTIZATION  
FOR THE TEST-YEAR ENDING DECEMBER 31, 2021

Line No.	Description	FERC Account No.	Twelve-Month Amortization
	(a)	(b)	(c)
1	<u>Insurance</u>		
2	Transmission	9240000	\$ 2,139,391
3		9250000	5,135,247
4	Distribution	9240000	1,981,530
5		9250000	7,360,669
7	Total		\$ 16,616,836
8			
9	<u>Membership Dues</u>		
10	Transmission	9302000	\$ -
11	Distribution	9302000	1,341,024
12	Total		\$ 1,341,024
13			
14	<u>Current Software Services &amp; Maintenance</u>		
	Transmission	9230000	2,924,395
15	Distribution	9230000	\$ 26,116,872
16	Total		\$ 29,041,267
17			
18	Total		\$ 46,999,127

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See Supporting Workpapers

2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
PREPAID TAX AMORTIZATION  
FOR THE TEST-YEAR ENDING DECEMBER 31, 2021

Line No.	Description (a)	FERC Account No. (b)	Twelve-Month Amortization (c)
1	<u>Local Gross Receipt Tax Amortization</u>		
2	Distribution	4082410	\$ 204,512,084
3	Transmission	4082410	-
4	Corporate	4082500	-
5	Total		<u>\$ 204,512,084</u>

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See Supporting Workpapers

**2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
OVERALL REVENUE LAG  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021**

<b>Line No.</b>	<b>Revenue Type</b>	<b>Revenues</b>	<b>Revenue Lag Days</b>	<b>Weighted Dollar Days</b>
	(a)	(b)	(c)	(d)
1	CC&B	\$ 3,755,449,473	52.74	\$ 198,055,498,654
2				
3	FIM	<u>550,229,352</u>	<u>54.04</u>	<u>29,734,761,199</u>
4				
5	Total	<u>\$ 4,305,678,826</u>	<u>52.90</u>	<u>\$ 227,790,259,853</u>

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See Supporting Workpapers

2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
LABOR - PAYROLL  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021

Line No.	Payroll Type (a)	Payroll Expense (b)	Percent (c)	(Lead)/Lag (d)	Check Float (e)	Total (Lead)/Lag (f)	Weighted Dollar Days (g)
1	<b>Bi-Weekly</b>						
2	Direct Deposit	\$ 46,520,803	99.77%	(11.96)	0.00	(11.96)	\$ (556,388,804)
3	Manual	107,245	0.23%	(11.96)	(7.27)	(19.23)	(2,062,312)
4							
5	Total Bi-Weekly Pay	\$ 46,628,048	17.13%			(11.98)	\$ (558,451,116)
6							
7	<b>Semi-Monthly</b>						
8	1st Pay Period:						
9							
10	Direct Deposit	\$ 111,761,930	99.77%	(12.08)	0.00	(12.08)	\$ (1,350,084,117)
11	Manual	257,645	0.23%	(12.08)	(7.27)	(19.35)	(4,985,431)
12							
13	Total 1st Pay Period	\$ 112,019,575	49.66%			(12.10)	\$ (1,355,069,548)
14							
15	2nd Pay Period:						
16							
17	Direct Deposit	\$ 113,292,299	99.77%	(12.17)	0.00	(12.17)	\$ (1,378,767,279)
18	Manual	261,173	0.23%	(12.17)	(7.27)	(19.44)	(5,077,203)
19							
20	Total 2nd Pay Period	\$ 113,553,472	50.34%			(12.19)	\$ (1,383,844,482)
21							
22	Total Semi-Monthly	225,573,048	82.87%			(12.14)	\$ (2,738,914,030)
23							
24	<b>Total</b>	<b>\$ 272,201,095</b>	<b>100.00%</b>	(12.10)		(12.11)	\$ (3,297,365,146)

See Supporting Workpapers

**2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
LABOR - INCENTIVE COMPENSATION  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021**

Line No.	Description	Payroll Expense	Percent	(Lead)/Lag	Check Float	Total (Lead)/Lag	Weighted Dollar Days
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Test Year Incentive	\$ 24,995,198					
2	Adjustment Needed	2,583,392					
3	Adjusted Incentive	<u>\$ 27,578,590</u>					
4							
5	Direct Deposit	\$ 27,515,160	99.77%	(249.33)	0.00	(249.33)	\$ (6,860,354,719)
6	Manual	<u>63,431</u>	0.23%	(249.33)	(7.27)	<u>(256.60)</u>	<u>(16,276,332)</u>
7	Total Adjusted Incentive	<u>\$ 27,578,590</u>				<u>(249.35)</u>	<u>\$ (6,876,631,051)</u>

See Supporting Workpapers

2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
NON-LABOR O&M - AFFILIATE  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021

Line No.	Month	From	To	Total Days	Mid-Point	Date Paid	Date Due	Later of Paid or Due Date	Days Paid After EOM	(Lead)/Lag Days
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	Oct-20	1-Oct-20	31-Oct-20	31.0	15.50	30-Nov-20	30-Nov-20	30-Nov-20	30	(45.50)
2	Nov-20	1-Nov-20	30-Nov-20	30.0	15.00	31-Dec-20	31-Dec-20	31-Dec-20	31	(46.00)
3	Dec-20	1-Dec-20	31-Dec-20	31.0	15.50	31-Jan-21	31-Jan-21	31-Jan-21	31	(46.50)
4	Jan-21	1-Jan-21	31-Jan-21	31.0	15.50	26-Feb-21	26-Feb-21	26-Feb-21	26	(41.50)
5	Feb-21	1-Feb-21	28-Feb-21	28.0	14.00	31-Mar-21	31-Mar-21	31-Mar-21	31	(45.00)
6	Mar-21	1-Mar-21	31-Mar-21	31.0	15.50	30-Apr-21	30-Apr-21	30-Apr-21	30	(45.50)
7	Apr-21	1-Apr-21	30-Apr-21	30.0	15.00	28-May-21	28-May-21	28-May-21	28	(43.00)
8	May-21	1-May-21	31-May-21	31.0	15.50	30-Jun-21	30-Jun-21	30-Jun-21	30	(45.50)
9	Jun-21	1-Jun-21	30-Jun-21	30.0	15.00	30-Jul-21	30-Jul-21	30-Jul-21	30	(45.00)
10	Jul-21	1-Jul-21	31-Jul-21	31.0	15.50	31-Aug-21	31-Aug-21	31-Aug-21	31	(46.50)
11	Aug-21	1-Aug-21	31-Aug-21	31.0	15.50	30-Sep-21	30-Sep-21	30-Sep-21	30	(45.50)
12	Sep-21	1-Sep-21	30-Sep-21	30.0	15.00	29-Oct-21	29-Oct-21	29-Oct-21	29	(44.00)
13										
14						Average				<u>(44.96)</u>

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See Supporting Workpapers

2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
TCOS - NON-ONCOR  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021

Line No.	Description (a)	(Lead)/Lag Days (b)
1	Average service period	
2	(365.25 days/12 months)/2	(15.22)
3		
4	Days from end of Service Period to Payment	(35.00)
5		
6		
7	Total Lead Days	<u>(50.22)</u>

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See Supporting Workpapers



2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
O&M EXPENDITURES - PENSION & SUPPLEMENTAL RETIREMENT BENEFITS  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021

55

Line No.	Payment Date (a)	Payment Type (b)	Payment		Benefit Period Dates		Benefit Period	Payment	Weighted Dollar	
			Amount (c)	% of Total (d)	Beginning (e)	Ending (f)	Mid-Point (g)	(Lead)/Lag (h) = (g) - (a)	Days (i) = (c) * (h)	
1	<b>Supplemental Retirement Plan</b>									
2	10/31/2020	Supplemental Retirement Plan	370,125	8.24%	1/1/2020	12/31/2020	7/1/2020	(121.50)	\$ (44,970,140)	
3	11/30/2020	Supplemental Retirement Plan	372,578	8.30%	1/1/2020	12/31/2020	7/1/2020	(151.50)	\$ (56,445,626)	
4	12/31/2020	Supplemental Retirement Plan	413,825	9.21%	1/1/2020	12/31/2020	7/1/2020	(182.50)	\$ (75,523,086)	
5	1/31/2021	Supplemental Retirement Plan	373,044	8.31%	1/1/2021	12/31/2021	7/2/2021	152.00	\$ 56,702,647	
6	2/28/2021	Supplemental Retirement Plan	372,252	8.29%	1/1/2021	12/31/2021	7/2/2021	124.00	\$ 46,159,267	
7	3/31/2021	Supplemental Retirement Plan	370,322	8.25%	1/1/2021	12/31/2021	7/2/2021	93.00	\$ 34,439,900	
8	4/30/2021	Supplemental Retirement Plan	367,750	8.19%	1/1/2021	12/31/2021	7/2/2021	63.00	\$ 23,168,259	
9	5/31/2021	Supplemental Retirement Plan	367,750	8.19%	1/1/2021	12/31/2021	7/2/2021	32.00	\$ 11,768,005	
10	6/30/2021	Supplemental Retirement Plan	368,582	8.21%	1/1/2021	12/31/2021	7/2/2021	2.00	\$ 737,165	
11	7/31/2021	Supplemental Retirement Plan	375,661	8.36%	1/1/2021	12/31/2021	7/2/2021	(29.00)	\$ (10,894,160)	
12	8/31/2021	Supplemental Retirement Plan	369,660	8.23%	1/1/2021	12/31/2021	7/2/2021	(60.00)	\$ (22,179,595)	
13	9/30/2021	Supplemental Retirement Plan	369,660	8.23%	1/1/2021	12/31/2021	7/2/2021	(90.00)	\$ (33,269,392)	
14										
15	Suppl. Payments and Weighted Dollar Days		\$ 4,491,209	100.00%					\$ (70,306,756)	
16	Weighted Average Payment Lead = Column (i), Line 15 divided by Column (c), Line 15							(15.65)		
17										

See Supporting Workpapers

2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
O&M EXPENDITURES - PENSION & SUPPLEMENTAL RETIREMENT BENEFITS  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021

Line No.	Payment Date (a)	Payment Type (b)	Payment Amount (c)	% of Total (d)	Benefit Period Dates		Benefit Period Mid-Point (g)	Payment (Lead)/Lag (h) = (g) - (a)	Weighted Dollar Days (i) = (c) * (h)
					Beginning (e)	Ending (f)			
18	<b>Retirement Plan (Pro Forma 2021)</b>								
19	4/15/2021	Retirement Plan	\$ 7,400,000	25.00%	1/1/2021	12/31/2021	7/2/2021	78.00	\$ 577,200,000
20	7/15/2021	Retirement Plan	7,400,000	25.00%	1/1/2021	12/31/2021	7/2/2021	(13.00)	\$ (96,200,000)
21	10/15/2021	Retirement Plan	7,400,000	25.00%	1/1/2021	12/31/2021	7/2/2021	(105.00)	\$ (777,000,000)
22	1/15/2022	Retirement Plan	7,400,000	25.00%	1/1/2021	12/31/2021	7/2/2021	(197.00)	\$ (1,457,800,000)
23									
24	Retirement Payments and Weighted Dollar Days		<u>\$ 29,600,000</u>	<u>100.00%</u>					<u>\$ (1,753,800,000)</u>
25	Weighted Average Payment Lead = Column (i), Line 24 divided by Column (c), Line 24							(59.25)	
26									
27									
28	Total Payments and Weighted Dollar Days		<u>\$ 34,091,209</u>						<u>\$ (1,824,106,756)</u>
29	Weighted Average Payment Lead = Column (i), Line 28 divided by Column (c), Line 28							(53.51)	

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2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
O&M EXPENDITURES - OTHER POST-EMPLOYMENT BENEFITS  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021

<u>Line No.</u>	<u>Payment Date</u> (a)	<u>Payment Type</u> (b)	<u>Payment Amount</u> (c)	<u>% of Total</u> (d)	<u>Benefit Period Dates</u>			<u>Payment (Lead)/Lag</u> (h) = (g) - (a)	<u>Weighted Dollar Days</u> (i) = (c) * (h)
					<u>Beginning</u> (e)	<u>Ending</u> (f)	<u>Benefit Period Mid-Point</u> (g)		
1	10/2/2020	OPEB-FAS 106	2,847,053	8.34%	10/1/2020	10/31/2020	10/16/2020	14.00	39,858,742
2	11/6/2020	OPEB-FAS 106	2,847,053	8.34%	11/1/2020	11/30/2020	11/15/2020	9.50	27,047,004
3	12/4/2020	OPEB-FAS 106	2,847,053	8.34%	12/1/2020	12/31/2020	12/16/2020	12.00	34,164,636
4	1/7/2021	OPEB-FAS 106	2,847,053	8.34%	1/1/2021	1/31/2021	1/16/2021	9.00	25,623,477
5	2/4/2021	OPEB-FAS 106	2,847,053	8.34%	2/1/2021	2/28/2021	2/14/2021	10.50	29,894,057
6	3/5/2021	OPEB-FAS 106	2,847,053	8.34%	3/1/2021	3/31/2021	3/16/2021	11.00	31,317,583
7	4/7/2021	OPEB-FAS 106	2,839,932	8.32%	4/1/2021	4/30/2021	4/15/2021	8.50	24,139,422
8	5/6/2021	OPEB-FAS 106	2,839,932	8.32%	5/1/2021	5/31/2021	5/16/2021	10.00	28,399,320
9	6/4/2021	OPEB-FAS 106	2,839,932	8.32%	6/1/2021	6/30/2021	6/15/2021	11.50	32,659,218
10	7/6/2021	OPEB-FAS 106	2,839,932	8.32%	7/1/2021	7/31/2021	7/16/2021	10.00	28,399,320
11	8/6/2021	OPEB-FAS 106	2,839,932	8.32%	8/1/2021	8/31/2021	8/16/2021	10.00	28,399,320
12	9/3/2021	OPEB-FAS 106	2,839,932	8.32%	9/1/2021	9/30/2021	9/15/2021	12.50	35,499,150
13	Total Payments and Weighted Dollar Days		\$ 34,121,910	100.000%					\$ 365,401,248
14	Weighted Average Payment Lead = Column (i), Line 13 divided by Column (c), Line 13							10.71	

See Supporting Workpapers

**2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
NON-LABOR O&M - OTHER THIRD PARTY O&M  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021**

<b>Line No.</b>	<b>Business Unit</b>	<b>Amount</b>	<b>Total (Lead)/Lag Days</b>	<b>Weighted Dollar Days</b>
	(a)	(b)	(c)	(d)
1	Transmission	\$ 86,691,097	(29.73)	\$ (2,577,351,457)
2	Distribution	470,408,160	(50.54)	(23,774,849,117)
3	Corporate *	1,423,446	97.77	139,170,324
4				
5	Total	<u>\$ 558,522,702</u>	<u>(46.93)</u>	<u>\$ (26,213,030,250)</u>

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See Supporting Workpapers

**2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
FEDERAL INCOME TAX  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021**

Line No.	Statutory Payment Due Date	Mid-Year	(Lead)/Lag Days	Statutory % of Total Taxes for Year	Weighted Days
	(a)	(b)	(c)	(d)	(e)
1	Tuesday, December 15, 2020	1-Jul-20	(166.50)	25.00%	(41.63)
2					
3	Thursday, April 15, 2021	2-Jul-21	78.50	25.00%	19.63
4					
5	Tuesday, June 15, 2021	2-Jul-21	17.50	25.00%	4.38
6					
7	Wednesday, September 15, 2021	2-Jul-21	(74.50)	25.00%	(18.63)
8					
9	Total				<u>(36.25)</u>

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See Supporting Workpapers

**2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
PAYROLL TAXES  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021**

Line No.	Description	Amount	(Lead)/Lag Days	Weighted Dollar Days
	(a)	(b)	(c)	(d)
1	FICA	\$ 34,752,384	(12.10)	\$ (420,503,847)
2				
3	Federal & State Unemployment	646,618	12.26	\$ 7,926,163
4				
5	Total Payroll Related Taxes	<u>\$ 35,399,002</u>	<u>(11.66)</u>	<u>\$ (412,577,685)</u>

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See Supporting Workpapers

**2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
STATE GROSS MARGIN TAX  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021**

<b>Line No.</b>	<b>Month/Year</b>	<b>Accrual Date</b>	<b>Mid Month</b>	<b>Due Date</b>	<b>(Lead)/Lag Days</b>
	(a)	(b)	(c)	(d)	(e)
1	Oct-20	31-Oct-20	15-Oct-20	Friday, May 15, 2020	153.00
2	Nov-20	30-Nov-20	15-Nov-20	Friday, May 15, 2020	184.00
3	Dec-20	31-Dec-20	15-Dec-20	Friday, May 15, 2020	214.00
4	Jan-21	31-Jan-21	15-Jan-21	Friday, May 14, 2021	(119.00)
5	Feb-21	28-Feb-21	14-Feb-21	Friday, May 14, 2021	(89.00)
6	Mar-21	31-Mar-21	15-Mar-21	Friday, May 14, 2021	(60.00)
7	Apr-21	30-Apr-21	15-Apr-21	Friday, May 14, 2021	(29.00)
8	May-21	31-May-21	15-May-21	Friday, May 14, 2021	1.00
9	Jun-21	30-Jun-21	15-Jun-21	Friday, May 14, 2021	32.00
10	Jul-21	31-Jul-21	15-Jul-21	Friday, May 14, 2021	62.00
11	Aug-21	31-Aug-21	15-Aug-21	Friday, May 14, 2021	93.00
12	Sep-21	30-Sep-21	15-Sep-21	Friday, May 14, 2021	124.00
13					
14	Average				<u>47.17</u>

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See Supporting Workpapers

2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
LOCAL GROSS RECEIPTS TAXES  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021

Line No.	City	Total Amount	Amort of Prepaid	Accrued Portion	(Lead)/Lag	Weighted Dollar Days
(a)	(b)	(c)	(d)	(e)	(f)	
1	DALLAS	\$ 49,842,175	\$ (33,345,380)	\$ 16,496,795	(16.77)	\$ (276,647,209)
2	FORT WORTH	\$ 30,496,677	\$ (20,379,839)	10,116,838	(17.85)	(180,613,805)
3	ARLINGTON	\$ 13,798,194	\$ (13,778,618)	19,576	(299.21)	(5,857,275)
4	PLANO	\$ 11,202,563	\$ (11,190,843)	11,719	(300.79)	(3,525,007)
5	IRVING	\$ 9,184,992	\$ (9,168,600)	16,393	(302.28)	(4,955,270)
6	RICHARDSON	\$ 7,802,379	\$ -	7,802,379	(91.24)	(711,867,343)
7	GRAND PRAIRIE	\$ 6,593,808	\$ (6,583,803)	10,005	(297.58)	(2,977,377)
8	WACO	\$ 5,754,791	\$ -	5,754,791	(91.48)	(526,466,394)
9	CARROLLTON	\$ 5,370,537	\$ -	5,370,537	(47.09)	(252,924,670)
10	MIDLAND	\$ 4,961,843	\$ (4,949,984)	11,858	(301.05)	(3,569,932)
11	TYLER	\$ 4,463,369	\$ -	4,463,369	(77.48)	(345,809,922)
12	KILLEEN	\$ 4,096,476	\$ -	4,096,476	(46.40)	(190,079,247)
13	ODESSA	\$ 3,987,404	\$ (3,977,198)	10,205	(380.37)	(3,881,785)
14	MESQUITE	\$ 3,843,654	\$ -	3,843,654	(55.95)	(215,040,562)
15	ROUND ROCK	\$ 3,566,327	\$ -	3,566,327	(188.75)	(673,130,251)
16	TEMPLE	\$ 3,412,790	\$ (3,401,246)	11,544	(294.74)	(3,402,325)
17	WICHITA FALLS	\$ 3,369,113	\$ (3,362,444)	6,669	(291.04)	(1,940,813)
18	MCKINNEY	\$ 3,225,637	\$ (3,214,688)	10,948	(301.53)	(3,301,220)
19	GRAPEVINE	\$ 3,215,558	\$ (3,210,858)	4,700	(304.45)	(1,430,898)
20	ALLEN	\$ 2,578,382	\$ (2,567,015)	11,368	(290.79)	(3,305,558)
21	MIDLOTHIAN	\$ 2,388,925	\$ -	2,388,925	(46.99)	(112,257,075)
22	MANSFIELD	\$ 2,356,565	\$ (2,009,940)	346,624	(48.03)	(16,648,273)
23	NORTH RICHLAND HILLS	\$ 2,198,562	\$ (1,867,389)	331,173	(48.44)	(16,040,473)
24	COPPELL	\$ 2,190,620	\$ (2,188,877)	1,743	(291.43)	(507,869)
25	FARMERS BRANCH	\$ 2,125,371	\$ (2,119,371)	6,000	(326.23)	(1,957,504)
26						
27		\$ 192,026,711	(\$127,316,094)	\$ 64,710,616	(54.99)	\$ (3,558,138,057)
28						

\* Twenty five largest tax payments were used. Top Twenty five = 69% of payments for local gross receipts

Discretionary Charges are all paid from account 236.2415 and were paid by check.

Local Gross Receipt Taxes are either prepaid from account 165.9000 or in arrears from Account 236.2410

See Supporting Workpapers



**2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
AD VALOREM TAXES  
FOR THE LEAD-LAG STUDY-PERIOD ENDING SEPTEMBER 30, 2021**

Line No.	County	Collector	Payment	Mid-Year	Check Cleared	Lag/Lead	Weighted Dollar Days
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Dallas	DALLAS COUNTY TAX OFFICE	\$ 44,557,245	1-Jul-20	1-Feb-21	(214.50)	\$ (9,557,528,958)
2	Tarrant	TARRANT COUNTY	\$ 34,609,267	1-Jul-20	1-Feb-21	(214.50)	(7,423,687,735)
3	Collin	COLLIN COUNTY	\$ 12,893,924	1-Jul-20	1-Feb-21	(214.50)	(2,765,746,640)
4	Bell	BELL COUNTY TAX APPRAISAL DIST	\$ 7,116,025	1-Jul-20	13-Nov-20	(134.50)	(957,105,356)
5	Denton	MICHELLE FRENCH, TAX A/C	\$ 6,397,614	1-Jul-20	1-Feb-21	(214.50)	(1,372,288,274)
6	Midland	MIDLAND CAD	\$ 5,786,472	1-Jul-20	1-Feb-21	(214.50)	(1,241,198,223)
7	Ector	ECTOR CAD	\$ 5,368,566	1-Jul-20	1-Feb-21	(214.50)	(1,151,557,323)
8	Mclennan	MCLENNAN COUNTY	\$ 4,719,087	1-Jul-20	1-Feb-21	(214.50)	(1,012,244,209)
9	Williamson	WILLIAMSON COUNTY	\$ 4,649,556	1-Jul-20	1-Feb-21	(214.50)	(997,329,700)
10	Smith	SMITH COUNTY TAX OFFICE	\$ 4,364,342	1-Jul-20	1-Feb-21	(214.50)	(936,151,458)
11	Ellis	ELLIS COUNTY	\$ 3,762,111	1-Jul-20	1-Feb-21	(214.50)	(806,972,904)
12	Grayson	GRAYSON COUNTY	\$ 3,008,732	1-Jul-20	1-Feb-21	(214.50)	(645,373,106)
13	Wichita	WICHITA COUNTY	\$ 2,924,334	1-Jul-20	1-Feb-21	(214.50)	(627,269,570)
14	Parker	PARKER CAD	\$ 2,603,342	1-Jul-20	1-Feb-21	(214.50)	(558,416,906)
15	Andrews	ANDREWS ISD TAX OFFICE	\$ 2,534,114	1-Jul-20	1-Feb-21	(214.50)	(543,567,402)
16	Johnson	JOHNSON COUNTY	\$ 2,509,601	1-Jul-20	1-Feb-21	(214.50)	(538,309,442)
17	Kaufman	KAUFMAN COUNTY	\$ 2,442,830	1-Jul-20	1-Feb-21	(214.50)	(523,986,947)
18	Rockwall	ROCKWALL CAD	\$ 2,326,097	1-Jul-20	1-Feb-21	(214.50)	(498,947,768)
19	Navarro	NAVARRO COUNTY	\$ 2,299,372	1-Jul-20	5-Nov-20	(126.50)	(290,870,520)
20	Scurry	SCURRY COUNTY	\$ 2,252,455	1-Jul-20	1-Feb-21	(214.50)	(483,151,495)
21	Tarrant	GRAPEVINE AREA TAX OFFICE	\$ 2,196,918	1-Jul-20	1-Feb-21	(214.50)	(471,238,883)
22	Nolan	NOLAN CAD	\$ 2,096,137	1-Jul-20	1-Feb-21	(214.50)	(449,621,487)
23	Wise	WISE COUNTY TAX OFFICE	\$ 2,084,842	1-Jul-20	1-Feb-21	(214.50)	(447,198,645)
24	Angelina	ANGELINA COUNTY TAX OFFICE	\$ 2,073,522	1-Jul-20	1-Feb-21	(214.50)	(444,770,418)
25	Brown	BROWN CAD	\$ 2,053,361	1-Jul-20	1-Feb-21	(214.50)	(440,445,930)
26							
27	Total		<u>\$ 167,629,865</u>			<u>(209.90)</u>	<u>\$ (35,184,979,298)</u>

28  
29 Note: Top 25 taxing jurisdictions used (represents approximately 68% of total ad valorem taxes)

See Supporting Workpapers

2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
AVERAGE DAILY BANK BALANCES  
FOR THE TEST-YEAR ENDING DECEMBER 31, 2021

Depository Bank Accounts - Adjusted Balances						
Line No.	Month/Year	JPMorgan Chase Bank Miscellaneous Receipts Acct	BNY Mellon Rep Receipt Account	JPMorgan Chase Bank Cash Concentration Acct	JPMorgan Chase Bank Payroll Account	Total of Daily Balances
	(a)	(b)	(c)	(d)	(e)	(f)
1	Jan-21	\$ 33,534,062	\$ 147,159,017	\$ 32,548,900	\$ 1,005,902	\$ 214,247,881
2	Feb-21	\$ 15,467,719	\$ 159,314,605	\$ 17,540,639	\$ 1,823,704	\$ 194,146,666
3	Mar-21	\$ 15,144,318	\$ 150,422,885	\$ 20,304,489	\$ 20,308,637	\$ 206,180,330
4	Apr-21	\$ 21,115,024	\$ 141,344,693	\$ 77,786,259	\$ 3,743,431	\$ 243,989,407
5	May-21	\$ 17,542,557	\$ 120,461,576	\$ 10,583,653	\$ 3,217,414	\$ 151,805,199
6	Jun-21	\$ 26,779,331	\$ 116,501,377	\$ 10,774,557	\$ 2,739,379	\$ 156,794,644
7	Jul-21	\$ 20,668,951	\$ 136,167,655	\$ 21,079,340	\$ 3,268,225	\$ 181,184,170
8	Aug-21	\$ 36,098,289	\$ 162,555,800	\$ 3,977,595	\$ 3,327,275	\$ 205,958,958
9	Sep-21	\$ 53,897,691	\$ 182,500,891	\$ 17,995,667	\$ 10,136,287	\$ 264,530,537
10	Oct-21	\$ 39,201,225	\$ 168,554,962	\$ 12,689,525	\$ 14,456,386	\$ 234,902,098
11	Nov-21	\$ 14,768,017	\$ 178,260,883	\$ 14,077,177	\$ 12,958,005	\$ 220,064,082
12	Dec-21	\$ 27,068,781	\$ 121,144,097	\$ 640,346,896	\$ 13,354,555	\$ 801,914,328
13						\$ 3,075,718,300
14						
15	Avg Bank Bal - Col (f) Ln 13 divided by		365.25			\$ 8,420,858

See Supporting Workpapers

**2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
WORKING FUNDS AND OTHER  
FOR THE TEST-YEAR ENDING DECEMBER 31, 2021**

Line No.	Description (a)	Amount (b)
1	Payroll Withholdings	\$ (895,405)
2	Misc. Working Funds	-
3	Misc. Deferred Debits & Credits	(8,278,904)
4	Home Purchase Plan	325,376
5	Other Accounts Receivables	<u>540,621</u>
6		
7	Misc. Funds	<u>\$ (8,308,312)</u>

65

See Supporting Workpapers

**Oncor Electric Delivery Company LLC  
Self-Insurance Reserve Regulatory Asset Balance  
Walk-Forward from Docket No. 46957  
December 31, 2016 to December 31, 2021**

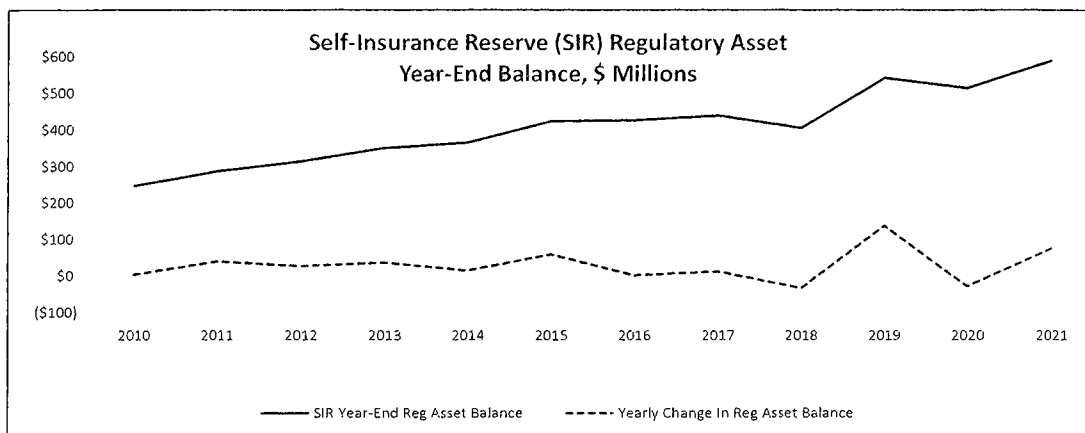
<u>Line</u>	<u>Period</u>	Previously Reviewed Self-Insurance Reserve <u>Deficit / (Surplus)</u> (a)	Current Rate Provision to Recover Previously Reviewed Losses (b)	Previously Reviewed Self-Insurance Reserve <u>Deficit / (Surplus)</u> (c) = (a) + $\Sigma$ (b)
1	Beginning Balance at December 31, 2016 (Docket No. 46957)	426,420,946		
2	12 Months Ended December 31, 2017		(32,565,367)	393,855,578
3	12 Months Ended December 31, 2018		(42,642,095)	351,213,484
4	12 Months Ended December 31, 2019		(42,642,095)	308,571,389
5	12 Months Ended December 31, 2020		(42,642,095)	265,929,295
6	12 Months Ended December 31, 2021		(42,642,095)	223,287,200
7	5 Years Ended December 31, 2021	426,420,946	(203,133,746)	
8	Ending Balance at December 31, 2021			223,287,200

<u>Line</u>	<u>Period</u>	Subsequent Losses Reflected In Self-Insurance Reserve (d)	Current Rate Provision for New Self-Insurance Reserve Loss Incidents (e)	Non-Reviewed Self-Insurance Reserve <u>Deficit / (Surplus)</u> (f) = $\Sigma$ (d) + $\Sigma$ (e)
9	Beginning Balance at December 31, 2016 (Docket No. 46957)	---		
10	12 Months Ended December 31, 2017	82,220,211	(37,224,234)	44,995,977
11	12 Months Ended December 31, 2018	84,066,643	(75,000,000)	54,062,620
12	12 Months Ended December 31, 2019	254,571,241	(75,000,000)	233,633,860
13	12 Months Ended December 31, 2020	88,815,472	(75,000,000)	247,449,332
14	12 Months Ended December 31, 2021	192,809,125	(75,000,000)	365,258,457
15	5 Years Ended December 31, 2021	702,482,691	(337,224,234)	
16	Ending Balance at December 31, 2021			365,258,457

<u>Line</u>	<u>Period</u>		End of Period Self-Insurance Reserve <u>Deficit / (Surplus)</u> (g) = (c) + (f)
17	Balance at December 31, 2016		426,420,946
18	Balance at December 31, 2017		438,851,555
19	Balance at December 31, 2018		405,276,104
20	Balance at December 31, 2019		542,205,250
21	Balance at December 31, 2020		513,378,627
22	Balance at December 31, 2021		588,545,657

**Oncor Electric Delivery Company LLC**  
**History of Oncor's Self-Insurance Reserve (SIR) Regulatory Asset Balance**  
**At Year-End 2010 - 2021**  
**\$ in Millions**

Year	SIR Beginning Reg Asset Balance (Jan. 1)	SIR Reg Asset Approved Amortization	SIR Annual Accrual	Total Annual SIR Amount (Amortization + Accrual)	Total Annual Losses Charged to SIR	Yearly Change In Reg Asset Balance	SIR Year-End Reg Asset Balance
2010	\$243	\$20	\$33	\$54	\$58	\$4	\$247
2011	\$247	\$20	\$33	\$54	\$94	\$40	\$287
2012	\$287	\$32	\$33	\$65	\$92	\$27	\$314
2013	\$314	\$32	\$33	\$65	\$101	\$36	\$350
2014	\$350	\$32	\$33	\$65	\$80	\$15	\$365
2015	\$365	\$32	\$33	\$65	\$124	\$59	\$424
2016	\$424	\$32	\$33	\$65	\$67	\$2	\$426
2017	\$426	\$33	\$37	\$70	\$82	\$12	\$439
2018	\$439	\$43	\$75	\$118	\$84	(\$34)	\$405
2019	\$405	\$43	\$75	\$118	\$255	\$137	\$542
2020	\$542	\$43	\$75	\$118	\$89	(\$29)	\$513
2021	\$513	\$43	\$75	\$118	\$193	\$75	\$589



**2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
WORKPAPERS FOR  
THE DIRECT TESTIMONY OF  
ASHLEY THENMADATHIL**

Mr. Thenmadathil has no supporting workpapers for his direct testimony.

**INDEX TO THE DIRECT TESTIMONY  
OF KEVIN R. FEASE, WITNESS FOR  
ONCOR ELECTRIC DELIVERY COMPANY LLC**

I.	POSITION AND QUALIFICATIONS .....	2
II.	PURPOSE OF DIRECT TESTIMONY .....	3
III.	COST OF DEBT .....	5
IV.	SUSTAINABLE FINANCING .....	8
V.	CAPITAL STRUCTURE .....	11
VI.	COST OF CAPITAL .....	14
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	Exhibit KRF-1      Rate Filing Package Schedules Sponsored by Kevin R. Fease	

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

**Fease - Direct  
Oncor Electric Delivery  
2022 Rate Case**

1 **DIRECT TESTIMONY OF KEVIN R. FEASE**

2 **I. POSITION AND QUALIFICATIONS**

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

5 A. My name is Kevin R. Fease. My business address is 1616 Woodall  
6 Rodgers Freeway, Dallas, Texas 75202. I am the Vice President and  
7 Treasurer for Oncor Electric Delivery Company LLC (the "Company" or  
8 "Oncor"). I also serve as Vice President and Treasurer of Oncor Electric  
9 Delivery Holdings Company LLC ("Holdings").

10 Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL  
11 QUALIFICATIONS.

12 A. I graduated from Kenyon College in 1995 with a Bachelor of Arts degree in  
13 History. In 1998, I received my Juris Doctor from the University of  
14 Wisconsin-Madison. Following graduation, I was employed by two law firms  
15 until joining American Electric Power Service Corporation in Columbus,  
16 Ohio, in 2000 as a corporate finance attorney. In 2004, I joined the legal  
17 department of TXU Business Services Company ("TXU") and moved to  
18 Oncor in 2007. I have spent much of my career in legal departments  
19 supporting a variety of business areas, including treasury and other financial  
20 functions. In 2018, I was elected to my current position. I am also a member  
21 of the State Bars of Texas, Ohio, and Wisconsin.

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

23 A. I provide the overall management of financing activities for Oncor to ensure  
24 its appropriate capitalization and its access to adequate funds for  
25 construction, operations, and other corporate purposes. I am responsible  
26 for determining the Company's short-term and long-term financing  
27 requirements, developing a financial strategy and financing plan to meet  
28 those requirements, and negotiating and obtaining the funding for those  
29 requirements. My responsibilities involve regular contact with various  
30 segments of the financial community, including investment and commercial

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1 bankers, credit rating agencies, and investors. I am also responsible for the  
2 Company's cash management operations, trust investment management,  
3 financial compliance activities, and oversight of the insurable risk  
4 management functions. I also serve on the Oncor Thrift Plan Committee,  
5 as Chair of the Oncor Sustainable Finance Committee, and as an Oncor  
6 representative on the Vistra Energy Retirement Plan investment committee.

7 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC UTILITY  
8 COMMISSION OF TEXAS ("COMMISSION")?

9 A. No, I have not.

10 **II. PURPOSE OF DIRECT TESTIMONY**

11 Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

12 A. The purpose of my direct testimony is to recommend a reasonable cost of  
13 debt and cost of capital for the Company. The cost of debt, taken together  
14 with the capital structure and return on equity recommendations of  
15 Company witnesses Ms. Ellen Lapson and Mr. Dylan W. D'Ascendis,  
16 determines the overall cost of capital for the Company. I also address the  
17 Oncor Sustainable Bond Framework, the reasonableness of the recovery  
18 of the pension and other postretirement benefits costs, and the Company's  
19 insurance program. I am also sponsoring the rate filing package schedules  
20 detailed in Exhibit KRF-1.

21 Q. WHY IS IT IMPORTANT FOR THE COMMISSION TO APPROVE  
22 ONCOR'S REQUESTED CAPITAL STRUCTURE, COST OF DEBT, AND  
23 RETURN ON EQUITY?

24 A. Capital structure, return on equity, and cost of debt are all integral parts of  
25 and contribute to the Company's creditworthiness, which ultimately  
26 influences our ability to finance investments in our system in a timely and  
27 cost-effective manner, and which in turn benefits ratepayers. Our  
28 creditworthiness is tied to rating agency views, and they have stated that  
29 Oncor has a higher percentage of debt in its capital structure than many in  
30 the industry. In addition, any failure to recover our full cost of debt would be

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1 perceived by rating agencies and investors negatively, and effectively as a  
2 reduction on our return on equity. Our requested capital structure, cost of  
3 debt, and return on equity also help mitigate the impacts that unanticipated  
4 costs could have on our financial plans. Given the rising interest rate  
5 environment, inflation, trends we've seen in increased storm damage  
6 restoration costs, and pension risks, additional expenses not anticipated as  
7 part of our current long-term plan could arise, and failure to approve the  
8 requested capital structure, cost of debt, and return on equity could make it  
9 increasingly difficult to absorb any such unexpected expenses without  
10 sacrificing planned investments on the system. A cost of debt approved by  
11 the Commission that is less than our actual cost of debt also limits our ability  
12 to finance using potentially beneficial, longer tenor instruments, which in  
13 turn could pose more refinance and interest rate risk.

14 Q. WHY IS IT IMPORTANT FOR THE COMMISSION TO APPROVE  
15 ONCOR'S RECOVERY OF PENSION AND OTHER POSTRETIREMENT  
16 BENEFITS COSTS?

17 A. Oncor has made commitments to employees and retirees regarding our  
18 provision of those benefits, which are relied upon by the recipients. Rating  
19 agencies and investors expect the Company to recover those costs.  
20 Anything less than full and accurate recovery of our actual costs with  
21 respect to pension and other postretirement benefits could be perceived  
22 negatively by rating agencies and investors and could impact our credit-  
23 worthiness.

24 Q. WHY IS IT IMPORTANT FOR THE COMMISSION TO FIND THAT  
25 ONCOR'S INSURANCE PROGRAM IS REASONABLE AND ITS  
26 ASSOCIATED EXPENSES ARE REASONABLE AND NECESSARY?

27 A. Rating agencies and investors expect that we will maintain sufficient  
28 insurance, and that we will recover those insurance costs. Anything less  
29 than full and accurate recovery of our actual costs with respect to insurance  
30 could be perceived negatively by rating agencies and investors and will

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1 negatively affect our ability to realize our authorized return on equity and  
2 could also impact our overall creditworthiness.

3 Q. WAS YOUR TESTIMONY PREPARED BY YOU OR AT YOUR  
4 DIRECTION?

5 A. My direct testimony, including my exhibit, was prepared by me or under my  
6 direction, supervision, or control and is, to the best of my knowledge and  
7 belief, true and correct. My direct testimony is organized consistent with the  
8 topics set forth above.

9 **III. COST OF DEBT**

10 Q. WHAT ARE ONCOR'S LONG-TERM CREDIT RATINGS ACCORDING TO  
11 STANDARD & POOR'S GLOBAL RATINGS ("S&P"), MOODY'S  
12 INVESTORS SERVICE ("MOODY'S"), AND FITCH RATINGS ("FITCH") AT  
13 DECEMBER 31, 2021?

14 A. Oncor's issuer ratings at December 31, 2021, are as follows:

15	S&P (Issuer Credit Rating)	A
16	Moody's (Implied Senior Unsecured Rating <sup>1</sup> )	Baa1
17	Fitch (Issuer Debt Rating)	BBB+

18 Q. ARE ALL THREE OF THESE RATINGS IN THE INVESTMENT GRADE  
19 CATEGORY?

20 A. Yes, they are.

21 Q. HAVE THE SAME THREE RATING AGENCIES ALSO PROVIDED  
22 RATINGS FOR ONCOR'S SENIOR SECURED DEBT AS OF DECEMBER  
23 31, 2021?

24 A. Yes. Oncor's senior secured debt was rated at December 31, 2021, as  
25 follows:

26	S&P	A+
27	Moody's	A2
28	Fitch	A

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<sup>1</sup> The implied unsecured rating is cited by Moody's when it compares Oncor's credit to the agency's formal unsecured ratings of industrial peers.

1 At each credit rating agency, Oncor's senior secured debt ratings are either  
2 one or two notches higher than Oncor's issuer rating by that agency, to  
3 reflect the greater assurance that secured lenders have due to the pledge  
4 of good collateral.

5 Q. HAS ONCOR RECEIVED ANY UPGRADES TO ITS SECURED DEBT  
6 RATINGS SINCE ITS LAST BASE-RATE CASE, DOCKET NO. 46957?

7 A. Yes. In March 2018, as a result of the close of Sempra's acquisition of an  
8 approximate 80.03% indirect interest in the Company, the rating agencies  
9 took ratings actions on Oncor.<sup>2</sup> S&P upgraded the Company's senior  
10 secured debt rating to A+ from A. Moody's upgraded Oncor's senior  
11 secured debt rating to A2 from A3. Fitch upgraded the Company's senior  
12 secured debt rating to A from BBB+.

13 Q. HOW DOES A COMPANY'S DEBT RATING AFFECT COST OF DEBT?

14 A. Ratings issued by the ratings agencies are designed to reflect an opinion of  
15 the default risk of a bond. Therefore, all else being equal, a higher rating  
16 (lower default risk) will decrease a bond's credit spread over the benchmark  
17 interest rate to reflect the lower risk. A lower credit spread will cause a lower  
18 cost of debt for bonds with the same maturity.

19 Q. WHAT STEPS DID ONCOR TAKE DURING 2017 THROUGH 2021 TO  
20 REDUCE ITS COST OF DEBT?

21 A. Oncor continuously seeks to meet its debt issuance needs on the most  
22 attractive terms possible and at the lowest cost. Since December 31, 2016,  
23 the Company has taken advantage of market conditions both to issue new  
24 debt and refinance existing debt at historically low coupons. It has issued  
25 some of its lowest coupons ever in 5-, 10-, and 30-year tenors. In addition,  
26 the Company identified certain issuances that had not yet become due but  
27 which carried coupons that were significantly above current interest rate  
28 market conditions. In those instances, Oncor issued new debt with a longer

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<sup>2</sup> Sempra subsequently obtained an additional approximately 0.22% interest in Oncor in a separate transaction.

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- 1 maturity and a lower coupon to existing debt holders in exchange for retiring  
2 such high coupon debt.
- 3 Q. DESCRIBE ONCOR'S RECENT DEBT EXCHANGE TRANSACTIONS,  
4 INCLUDING THE REASONS FOR AND THE BENEFITS OF SUCH  
5 TRANSACTIONS.
- 6 A. On two occasions during the 2017-2021 time period, Oncor successfully  
7 offered holders of existing Oncor bonds the opportunity to exchange their  
8 existing bonds for newly-issued bonds. The tenors of the newly-issued  
9 bonds were longer and the coupons, on average, were lower than the  
10 existing bonds, though still above then-current market rates since Oncor did  
11 not offer existing bondholders a cash premium. Oncor engaged investment  
12 banks to determine the desired tenor and coupon, and in both cases the  
13 transactions resulted in holders of approximately \$300 million aggregate  
14 principal amount accepting the offers. In each case, the result was Oncor  
15 being able to lower its annual interest expense and in turn reduce the overall  
16 cost of debt.
- 17 Q. WHAT WAS ONCOR'S COST OF DEBT AT DECEMBER 31, 2021, AS  
18 CALCULATED BASED ON THIS COMMISSION'S STANDARDS AS SET  
19 FORTH IN SCHEDULE II-C-2.4?
- 20 A. Oncor's cost of debt at December 31, 2021, as shown in Schedule II-C-  
21 2.4a, was 4.39%.
- 22 Q. DOES THIS COST OF DEBT REFLECT ONCOR'S HIGHER DEBT  
23 RATING?
- 24 A. Yes. Oncor has issued additional debt since its ratings upgrades in March  
25 2018. The issuances benefited from the higher debt ratings and were  
26 issued at rates that were lower than they would have been absent the  
27 upgrades.
- 28 Q. WILL ONCOR'S CUSTOMERS BENEFIT FROM THIS LOWER COST?
- 29 A. Yes, the debt issuances are included in the cost of debt as shown in  
30 Schedule II-C-2.4a and result in a reduction in the cost of debt.

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1 Q. WHAT COST OF DEBT DO YOU RECOMMEND FOR THE RATE CASE?

2 A. I recommend a cost of debt of 4.39%, the cost of debt as shown in  
3 Schedules II-C-2.1 and II-C-2.4a.

4 Q. DO YOU BELIEVE THE RECOMMENDED COST OF DEBT IS  
5 REASONABLE?

6 A. Yes, I do.

7 **IV. SUSTAINABLE FINANCING**

8 Q. WHAT IS SUSTAINABLE FINANCE AND WHY IS IT IMPORTANT?

9 A. Sustainable finance is a significant and growing share of the financial  
10 market that takes into account environmental, social, and governance  
11 (“ESG”) considerations as part of investment decisions. Funding sources  
12 are increasingly interested in promoting ESG goals through their  
13 investments and investing in companies with a strong track record on ESG  
14 matters.

15 Q. WHAT STEPS HAS ONCOR TAKEN TO GAIN ACCESS TO  
16 SUSTAINABLE FINANCING?

17 A. Oncor created its first Corporate Sustainability Overview in 2020, developed  
18 the Oncor Sustainable Bond Framework (the “Framework”), and worked  
19 with an independent third-party to obtain an ESG risk rating. In addition,  
20 Oncor obtained a second-party opinion with respect to the Framework,  
21 initiated a Sustainable Finance Committee, and communicated with  
22 potential and current investors. Oncor’s first ever sustainable bond offering  
23 was then launched in September 2020. In 2021, Oncor issued its second  
24 annual Corporate Sustainability Overview, received an updated  
25 independent third-party ESG risk rating, and entered into a sustainability-  
26 linked revolving credit facility.

27 Q. WHAT IS ONCOR’S SUSTAINABLE BOND FRAMEWORK?

28 A. The Framework was designed and developed so that Oncor may issue,  
29 from time to time, certain bonds or related debt instruments with net  
30 proceeds that we intend to utilize to finance or refinance one or more

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1 projects that we believe may have environmental and/or societal benefits  
2 (“Sustainability Bond”). The Framework details the following:

- 3 1. Use of Proceeds: which project types are eligible for  
4 financing/refinancing with the net proceeds from the sale of any  
5 Sustainability Bonds Oncor may make from time to time, and how  
6 those projects provide clear environmental and/or social benefits;
- 7 2. Process for Project Evaluation and Selection: relevant evaluation  
8 elements include social objectives, the process for evaluation,  
9 and the related eligibility and/or exclusion criteria;
- 10 3. Management of Proceeds: how proceeds are tracked and  
11 verified; and
- 12 4. Reporting: how the Company intends to provide Sustainability  
13 Bond reporting on a regular basis until the net proceeds of any  
14 Sustainability Bond issuance are fully allocated or disbursed.

15 Q. WHAT IS THE SIGNIFICANCE OF THE SECOND-PARTY OPINION WITH  
16 RESPECT TO THE SUSTAINABLE BOND FRAMEWORK?

17 A. Companies often seek second-party opinions from independent entities to  
18 provide investors assurance that the issuer’s sustainable bond framework  
19 is credible and meets certain guidelines set forth by the International Capital  
20 Market Association.

21 Q. PLEASE DESCRIBE THE SECOND-PARTY OPINION OBTAINED BY  
22 ONCOR.

23 A. An independent ESG research, ratings, and data firm issued a second-party  
24 opinion with respect to the Framework on September 17, 2020, regarding  
25 its assessment that the Framework is credible and impactful and aligns with  
26 the Sustainability Bond Guidelines issued in 2018 by the International  
27 Capital Market Association. The opinion notes that its assessment is based  
28 on review of the Framework’s eligible categories for use of proceeds, the  
29 Framework’s project evaluation and selection process, the Framework’s

1 process for management of proceeds, and the Framework's plan for  
2 reporting use of proceeds.

3 Please also see the direct testimony of Company witness Mr.  
4 Michael G. Grable for additional discussion of the Company's Framework  
5 and efforts with regard to ESG.

6 Q. DESCRIBE ONCOR'S FIRST EVER SUSTAINABLE BOND OFFERING,  
7 THE REASONS FOR THE OFFERING, AND THE ADVANTAGES OR  
8 RESULTS OF THE OFFERING.

9 A. In September 2020, Oncor issued its inaugural Sustainability Bond. The  
10 Company issued \$450,000,000 of 0.55% Senior Secured Notes, due 2025.  
11 Oncor used the proceeds from the sale of the 2025 Notes to finance or  
12 refinance, in whole or in part, eligible projects consisting of investments in  
13 or expenditures with minority- and women-owned business suppliers  
14 pursuant to the Framework. Oncor believes that in the future, it is likely that  
15 many investors will increasingly focus on sustainable and responsible  
16 companies to allocate capital. As an essential service provider and an  
17 important corporate citizen in the communities in which we live and work,  
18 Oncor recognizes its responsibility to contribute to and address some of the  
19 most relevant social challenges of our time, and we believe sustainable  
20 finance is a method in which we can make an impact in those social areas.  
21 This particular offering by Oncor was very well received, obtaining, at the  
22 time, one of the lowest ever 5-year coupons of any utility, and among the  
23 lowest of any company, regardless of the industry. In September 2021, we  
24 fully allocated the net proceeds of the offering to eligible expenditures with  
25 minority- and women-owned business suppliers and completed the required  
26 public reporting on our allocation of the proceeds.

27 Q. DESCRIBE ONCOR'S SUSTAINABILITY-LINKED CREDIT FACILITY.

28 A. In November 2021, Oncor entered into a new \$2 billion revolving credit  
29 facility that includes sustainability-linked pricing metrics, which replaced our  
30 previous revolving credit facility. The borrowing interest rate and lender

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1 commitment fees we pay under the life of this facility will be determined by  
2 Oncor's credit ratings and may also be increased or decreased by Oncor's  
3 performance on two sustainability-related key performance indicators  
4 (KPIs): one environmental-related KPI (number of partially electric-  
5 powered bucket trucks in Oncor's fleet at the end of the year) and one  
6 safety-related KPI (a three-year average "days away-restricted-transferred"  
7 or "DART" rate). The maximum pricing adjustment in any given year as a  
8 result of our performance on those sustainability-related KPIs is +/- 0.01%  
9 on the commitment fee and +/- 0.05% on the borrowing interest rate.

10 **V. CAPITAL STRUCTURE**

11 Q. WHAT WAS ONCOR'S CAPITAL STRUCTURE AT THE END OF THE  
12 TEST YEAR?

13 A. As shown on RFP Schedule II-C-2.1, the Company's capital structure, as  
14 adjusted, as of December 31, 2021, is 55.0% long-term debt and 45.0%  
15 common equity.

16 Q. WHAT ADJUSTMENTS HAVE YOU MADE TO THE ACTUAL DECEMBER  
17 31, 2021 AMOUNTS?

18 A. I have made several adjustments to the Company's actual December 31,  
19 2021 capital structure. I have made adjustments to properly reflect the  
20 amount of unamortized fees, expenses, premiums, and gains and losses  
21 on reacquired debt. These adjustments are detailed on RFP Schedules II-  
22 C-2.4 and II-C-2.4a and are consistent with the historical methodology used  
23 in calculating Oncor's cost of capital in the Earnings Monitoring Report  
24 required by the Commission and in rate cases. Adjustments to common  
25 equity are explained in Company witness Mr. W. Alan Ledbetter's direct  
26 testimony.

27 Q. DOES ONCOR HAVE ANY SHORT-TERM DEBT IN ITS REQUESTED  
28 CAPITAL STRUCTURE?

29 A. No. The Company had approximately \$215 million in short-term debt, all in  
30 the form of commercial paper ("CP"), as of December 31, 2021. Oncor's

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1 CP program provides a lower cost alternative for short-term debt as  
2 compared to our sustainability-linked revolving credit facility. Short-term  
3 debt is intended to be used for funding construction work in progress  
4 (“CWIP”) and other working-capital purposes. The Company also funds  
5 CWIP and its permanent investment in assets used to provide regulated  
6 delivery service with available cash, long-term debt, and common equity.

7 Furthermore, in order to issue debt at more competitive rates,  
8 investors must feel comfortable that the size of the issuance will be sufficient  
9 to make the bonds liquid enough such that there will be a market for the  
10 bonds if the investor decides to trade the bonds sometime before they  
11 mature. A general rule of thumb is that a bond issuance should be large  
12 enough to be eligible for inclusion in certain published bond indices. To be  
13 eligible for inclusion in these indices, the issuance size must be at least  
14 \$300 million. Therefore, short-term debt balances can change over time  
15 based on the timing of long-term debt issuances, as well as cash flows from  
16 the Company, which are seasonal, and levels of capital expenditures.

17 Q. WHAT CAPITAL STRUCTURE WAS APPROVED BY THE COMMISSION  
18 IN ONCOR’S LAST BASE-RATE CASE, DOCKET NO. 46957?

19 A. Oncor’s capital structure, as approved by the Commission in Docket No.  
20 46957, was 57.50% long-term debt and 42.50% common equity.

21 Q. IN DOCKET NO. 47675, FINDING OF FACT NO. 56, ONCOR MADE A  
22 DEBT-TO-EQUITY COMMITMENT THAT REQUIRED ONCOR NOT TO  
23 EXCEED ITS APPROVED DEBT-TO-EQUITY RATIO. HAS ONCOR  
24 COMPLIED WITH THAT COMMITMENT?

25 A. Yes.

26 Q. HAS ONCOR MADE ANY COMMITMENTS REGARDING INTEREST  
27 RATE SAVINGS SINCE THE END OF THE TEST YEAR IN ITS LAST  
28 BASE-RATE CASE (DECEMBER 31, 2016)?

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1 A. Yes. In Docket Nos. 47675 and 48929, the Commission required the  
2 Company to file interest-rate savings reports every six months detailing any  
3 interest rate-savings and determining a calculation of the credit.

4 Q. HAS ONCOR COMPLIED WITH THE INTEREST SAVINGS  
5 COMMITMENTS FROM DOCKET NOS. 47675 AND 48929?

6 A. Yes. Oncor has filed semi-annual interest-rate savings reports with the  
7 Commission as required under Docket Nos. 47675 and 48929 in Docket  
8 Nos. 48669, 49314, 49936, 50630, 51266, 50829, 51881, 52545, and  
9 53320. Accumulated interest savings from these filings totaled more than  
10 \$17.4 million.

11 Q. HOW DOES THE ACQUISITION OF ONCOR ELECTRIC DELIVERY  
12 COMPANY NTU LLC AFFECT ONCOR'S CAPITAL STRUCTURE?

13 A. Following the Commission's approval of the transaction in Docket No.  
14 48929, Oncor Electric Delivery Company NTU LLC ("Oncor NTU") became  
15 an Oncor affiliate. As further explained in the direct testimony of Company  
16 witness Mr. Ledbetter, the Company consolidates the results of operations  
17 with those of Oncor NTU in the Company's external reporting and the  
18 Company's rate filing in this proceeding consolidates its operations with  
19 those of Oncor NTU for ratemaking purposes, using Oncor's capital  
20 structure, weighted average cost of debt and return on equity. The capital  
21 structure of Oncor NTU approximates that of Oncor, which capital structure  
22 was established using intercompany debt and equity. Oncor NTU pays  
23 Oncor interest on this debt based on Oncor's weighted average cost of  
24 debt. The interest expense Oncor NTU pays Oncor and the interest income  
25 recorded by Oncor are eliminated in consolidation for financial reporting  
26 purposes, with the result being no impact on Oncor's requested cost of  
27 service.

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1 **VI. COST OF CAPITAL**

2 Q. WHAT COST OF CAPITAL ARE YOU RECOMMENDING IN THIS CASE?

3 A. Oncor must be properly capitalized to ensure the continued financial  
4 strength of the Company, thus providing it access to capital on reasonable  
5 terms in the future. This will ensure that the Company can continue to  
6 provide safe and reliable service to Texas electricity consumers at a  
7 reasonable cost. I have calculated the cost of capital based upon the  
8 recommended capital structure as provided by Company witness Ms.  
9 Lapson and a 10.30% return on equity, based upon the return on equity  
10 recommended by Company witness Mr. D'Ascendis. When combined with  
11 the cost of debt, the recommended capital structure and cost of capital are  
12 as follows:

	<u>Percent of</u>	<u>Cost of</u>
	<u>Capitalization</u>	<u>Capital</u>
16 Long-Term Debt	55.0%	4.39%
17 Common Equity	45.0%	10.30%
18 Total Weighted Cost of Capital		7.05%

19 Based upon this recommended capital structure and the associated cost of  
20 capital, the required overall cost of capital for the Company is 7.05%. I have  
21 provided this overall cost of capital to Company witness Mr. Ledbetter in  
22 order to derive the total required dollar return for inclusion in the Company's  
23 requested cost of service.

24 Q. HOW DOES ONCOR'S PROPOSED NEW CAPITAL STRUCTURE  
25 COMPARE TO ITS ACTUAL CAPITAL STRUCTURE AS OF DECEMBER  
26 31, 2021?

27 A. As I mentioned above, Oncor's capital structure at December 31, 2021, was  
28 55.0% long-term debt and 45.0% common equity. Thus, Oncor's requested  
29 capital structure in this docket is its actual capital structure. So, to maintain  
30 the proposed 55.0% debt and 45.0% equity capital structure, Oncor will

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1 need to manage its amount of debt and of equity consistent with its current  
2 capitalization.

3 Q. ARE THERE OTHER MATTERS THAT THE COMMISSION SHOULD  
4 TAKE INTO CONSIDERATION IN DETERMINING THE PROPER RATE  
5 OF RETURN?

6 A. Yes. As discussed by several Company witnesses, including Messrs.  
7 James A. Greer, Keith Hull, Wesley R. Speed, Collin M. Martin, Grable, and  
8 Joel S. Austin, Oncor has established a high degree of efficiency in its  
9 operations, provides a superior quality of service, is well managed, and has  
10 taken a leadership position in Texas and the nation in the investment and  
11 development of energy efficiency, transmission to facilitate renewable  
12 resources, and other advanced technologies. In 2017 through 2021, Oncor  
13 spent approximately \$250 million in energy efficiency development, and  
14 Oncor plans to spend another approximately \$50 million in each of the years  
15 2022 and 2023. Over the same period, Oncor has invested over \$900  
16 million in technology-related upgrades and replacements. In addition to the  
17 investments in energy efficiency development and technology-related  
18 upgrades and replacements described above, since the beginning of 2017,  
19 Oncor has invested over \$12.1 billion in transmission and distribution  
20 infrastructure, and Oncor plans to invest an additional \$15 billion of capital  
21 in the 2022-2026 timeframe, a plan that substantially exceeds any other  
22 utility's capital plan in Texas. These investments are in addition to the high  
23 operational performance and efficiencies demonstrated by the Company  
24 since 2017 as described in detail by Mr. Greer (*e.g.*, low O&M cost per  
25 customer and high level of system reliability). As discussed in the direct  
26 testimony of Company witness Mr. D'Ascendis, this capital plan also  
27 presents a significant degree of risk that must be considered when  
28 evaluating Oncor's return on equity.

1 Section 36.052 of the Public Utility Regulatory Act states:  
2 In establishing a reasonable return on invested capital, the  
3 regulatory authority shall consider applicable factors,  
4 including: (1) the efforts and achievements of the utility in  
5 conserving resources; (2) the quality of the utility's services;  
6 (3) the efficiency of the utility's operations; and (4) the quality  
7 of the utility's management.  
8

9 The Commission should give careful consideration to the Company's  
10 excellent performance and leadership in each of these areas in determining  
11 the proper rate of return.

12 Q. GIVEN THE COMPANY'S FIVE-YEAR CAPITAL PLAN, WILL ONCOR  
13 HAVE A REASONABLE OPPORTUNITY TO EARN A REASONABLE  
14 RETURN ON ITS INVESTED CAPITAL?

15 A. No. Oncor's ability to earn its authorized return is greatly hindered to the  
16 point that it is effectively impossible. Given the Company's large capital  
17 plan of \$15 billion from 2022-2026 and the need to continue to provide safe  
18 and reliable service to new and existing customers, Oncor does not have  
19 the ability to offset the shortfall in return on a sustained basis.  
20 Approximately two-thirds of the capital plan relates to funding transmission  
21 and distribution grid expansion projects, which are necessary to  
22 accommodate the growth in Oncor's service territory. The extent of this  
23 level of capital spending, together with the attendant regulatory lag inherent  
24 in recovering these expenditures in rates, will result in Oncor's inability to  
25 earn its authorized return, whatever that return is. Oncor is experiencing  
26 this result now, and it will experience this same result when its new rates  
27 are in effect, only the result will be exacerbated as it embarks on a larger  
28 capital plan than in past periods.

29 The Company recognizes that there are many factors that contribute  
30 to a utility having the ability to earn its authorized ROE, some of which are  
31 within the utility's control. That being said, to achieve the authorized ROE  
32 in this case, whatever it may be, Oncor would have to drastically slash its

1 capital plan and/or cut its O&M budget to a level that would put at risk safety  
2 and reliability. That is unacceptable to the citizens of Texas given the vast  
3 majority of the capital plan results from the economic growth that is the life  
4 blood of the state, as well as of Oncor's service territory, and safety and  
5 reliability must not be compromised. This investment is necessary.

6 The Company is not requesting a specific adjustment to its ROE  
7 beyond the ROE sponsored by Oncor witness Mr. D'Ascendis due to its  
8 inability to earn its authorized ROE. However, I would submit that the fact  
9 that Oncor will not be able to earn its authorized ROE must be considered  
10 by the Commission in selecting the Company's ROE in this docket.

11 **VII. PENSION AND OTHER POSTRETIREMENT BENEFITS PLANS**

12 Q. BRIEFLY DESCRIBE ONCOR'S PENSION AND OTHER  
13 POSTRETIREMENT BENEFITS PLANS.

14 A. Oncor participates in three pension plans: the Oncor Retirement Plan; the  
15 Oncor Supplemental Retirement Plan; and the Vistra Energy Retirement  
16 Plan (formerly known as the EFH Retirement Plan). Oncor sponsors the  
17 Oncor Retirement Plan, which is a qualified plan under Section 401(a) of  
18 the Internal Revenue Code of 1986, as amended, and the Oncor  
19 Supplemental Retirement Plan. Oncor also has contractual liabilities  
20 relating to the Vistra Energy Retirement Plan that is sponsored by Vistra  
21 Energy. Oncor also sponsors two benefit plans that provide other  
22 postemployment benefits ("OPEBs"): the Oncor Retiree Welfare Plan and  
23 the Oncor Shared Retiree Welfare Plan.

24 Annual retirement benefits under the Oncor Retirement Plan are  
25 computed differently for the traditional component and the cash balance  
26 component. Under the traditional defined benefit component, benefits are  
27 computed as a percentage of the highest three-year average pay at  
28 retirement for each year of service. Under the cash balance component,  
29 hypothetical accounts are established for participants that receive periodic

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1 credits based on pay and service. In addition, interest credits are added to  
2 the account using a rate defined in the plan.

3 Further, retired employees and their eligible dependents, as well as  
4 certain retirees of Vistra Energy/EFH Corp. with regulated service, are  
5 provided access to OPEBs (consisting of retiree health care benefits,  
6 including medical, prescription drug, and dental coverage, as well as group  
7 term-life insurance coverage) through the Oncor Retiree Welfare Plan and  
8 the Oncor Shared Retiree Welfare Plan, which are both sponsored by  
9 Oncor. Please see the direct testimony of Company witnesses Mr. Alan S.  
10 Taper and Ms. Angela Y. Guillory for additional discussion on Oncor's  
11 pension and OPEBs.

12 Q. HAS THE COMMISSION PREVIOUSLY APPROVED THE RECOVERY  
13 OF COSTS RELATED TO THESE PLANS?

14 A. Yes. The Commission has included the expenses related to these plans in  
15 Docket Nos. 5640, 9300, 11735, 22350, 35717, 38929 and 46957.

16 Q. HAVE THERE BEEN ANY SIGNIFICANT CHANGES TO THE PENSION  
17 PLANS SINCE LAST REVIEWED BY THE COMMISSION?

18 A. No. However, since 2017, Oncor has taken action to transfer pension risk.

19 Q. PLEASE DESCRIBE THE ACTION ONCOR HAS TAKEN TO TRANSFER  
20 PENSION RISK.

21 A. In 2019, Oncor completed an annuity purchase transferring recoverable  
22 pension benefit obligations ("PBO") and corresponding plan assets of \$74.5  
23 million to a high-quality insurance carrier specializing in the pension annuity  
24 business. In 2020, Oncor offered one-time lump sum payments in lieu of  
25 future pension annuities to employees covered by the Oncor Retirement  
26 Plan reducing recoverable PBO and corresponding plan assets by \$28.8  
27 million. And in 2021, Oncor completed a second annuity purchase  
28 transferring recoverable PBO and corresponding plan assets of \$76.5  
29 million to a high-quality insurance carrier specializing in the pension annuity  
30 business.

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- 1 Q. ARE THE BENEFITS PROVIDED UNDER THE PENSION AND OPEB  
2 PLANS THE SAME TODAY AS THEY WERE IN THOSE CASES  
3 PREVIOUSLY REVIEWED BY THE COMMISSION?
- 4 A. Yes.
- 5 Q. HAVE THERE BEEN ANY SIGNIFICANT CHANGES TO THE OPEB PLAN  
6 SINCE LAST REVIEWED BY THE COMMISSION?
- 7 A. Yes. Effective January 1, 2018, Oncor established a second plan, the  
8 Shared Retiree Welfare Plan, to cover eligible retirees of Oncor and Vistra  
9 Energy whose employment services were assigned to both Oncor (or a  
10 predecessor regulated utility business) and the non-regulated business of  
11 Vistra Energy. Vistra Energy is solely responsible for its portion of the  
12 liability for retiree benefits related to those retirees. The Shared Retiree  
13 Welfare Plan is further described in the direct testimony of Company  
14 witnesses Mr. Taper and Ms. Guillory.
- 15 Q. HAS ONCOR EXPERIENCED ANY CHANGES IN COSTS ASSOCIATED  
16 WITH THE PENSION AND OPEB PLANS SINCE LAST REVIEWED BY  
17 THE COMMISSION?
- 18 A. Yes. Oncor's total annual GAAP pension and OPEB costs have decreased  
19 from \$138 million in fiscal year 2017 to \$67 million in fiscal year 2022. The  
20 \$71 million net decrease is primarily attributable to a significant reduction in  
21 the unfunded benefit obligations during the period, which was partially offset  
22 by a slight increase in the annual service costs. The net impact of the steps  
23 Oncor has taken to manage the pension and OPEB plans over the period  
24 has contributed to the significant reduction in the unfunded benefit  
25 obligation.
- 26 Q. ARE THE COMPANY'S COSTS FOR THE PENSION AND OPEBS  
27 REASONABLE?
- 28 A. As discussed above, the costs for pensions and OPEBs, as described in  
29 the direct testimony of Company witness Mr. Taper, are reasonable and

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1 necessary. These amounts have been provided to Company witness Mr.  
2 Ledbetter for inclusion in the cost of service.

3 **VIII. INSURANCE OVERVIEW**

4 Q. DESCRIBE GENERALLY ONCOR'S INSURANCE PROGRAM.

5 A. Oncor's overall property and liability insurance program utilizes a blend of  
6 commercial insurance and self-insurance to minimize the financial  
7 implications of future contingent events or risks of damage to Oncor's  
8 assets. Oncor's insurance program covers property and liability losses  
9 associated with aviation, crime, cyber and technology, directors and  
10 officers, fiduciary, professional, transmission and distribution assets,  
11 facilities and infrastructure, terrorism and sabotage, workers comp and  
12 employers' liability. Oncor now utilizes: (1) its self-insurance plan for  
13 insurable property loss occurrences categorized as operations and  
14 maintenance ("O&M") expenses of \$500,000 to \$10,000,000 and liability  
15 loss occurrences of \$500,000 to \$3,000,000; (2) commercial insurance for  
16 certain insurable property losses over \$10,000,000 and liability losses  
17 exceeding \$3,000,000; and (3) its self-insurance plan for uninsurable loss  
18 occurrences categorized as O&M expenses to transmission and distribution  
19 units of property, such as towers, poles, and wires, at and above \$500,000  
20 per occurrence. The commercial policy for property losses also has a  
21 separate \$100,000 deductible that applies to property loss at office locations  
22 and service centers. During the test year, the upper limit of its self-  
23 insurance plan for insurable property loss occurrences categorized as O&M  
24 expenses changed from \$2,000,000 to \$10,000,000. As described in the  
25 direct testimony of Company witness Mr. Gregory S. Wilson, self-insurance  
26 provides a lower-cost alternative to purchasing commercial insurance for all  
27 losses that could potentially occur to the Company's assets.

28 Q. HAS ONCOR EXPERIENCED ANY CHANGES IN EXPENSES  
29 ASSOCIATED WITH COMMERCIAL INSURANCE PREMIUMS IN  
30 RECENT YEARS?

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- 1 A. Yes. Recently, commercial insurance premiums have risen at a very high  
2 rate. For example, in 2020, Oncor's expense associated with commercial  
3 insurance premiums was approximately \$15.6 million. During the test year  
4 (calendar year 2021), Oncor's insurance premiums totaled approximately  
5 \$19.2 million for policies with higher deductibles and less coverage than for  
6 calendar year 2020, thus shifting the risk of certain expenses associated  
7 with claims from insurance companies to Oncor. It is the Company's  
8 understanding that this is a negative trend being experienced across the  
9 utility industry.
- 10 Q. IS ONCOR PROPOSING ANY KNOWN AND MEASURABLE CHANGES  
11 TO THE COST OF SERVICE ASSOCIATED WITH COMMERCIAL  
12 INSURANCE PREMIUMS?
- 13 A. Yes, the cost of service is being adjusted upward to account for continuing  
14 increases in commercial insurance premiums as described above. The  
15 Company is proposing a \$3.1 million known and measurable change to  
16 reflect a full year of increased commercial insurance policy premiums that  
17 have increased since the end of the test year. I have provided these  
18 adjustments to Oncor witness Mr. Ledbetter for inclusion in the cost of  
19 service.
- 20 Q. IS ONCOR'S INSURANCE PROGRAM, INCLUDING ITS USE OF  
21 COMMERCIAL INSURANCE AND SELF-INSURANCE, REASONABLE  
22 AND NECESSARY?
- 23 A. Yes, the Company's insurance program, including its use of commercial  
24 insurance and self-insurance at the levels set forth in my testimony, balance  
25 the needs of Oncor and support its ability to provide safe and reliable  
26 service to its customers at a reasonable cost.

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**IX. SUMMARY AND CONCLUSION**

Q. WHAT ARE YOUR CONCLUSIONS WITH REGARD TO YOUR DIRECT TESTIMONY?

A. My conclusions are as follows:

- Oncor’s proposed capital structure, return on equity, and cost of debt are reasonable and will provide the Company with the ability to obtain capital at reasonable rates that will be necessary to fund the growth that is being experienced in ERCOT and provide Oncor with a reasonable opportunity to earn a reasonable return on its rate base;
- Oncor’s costs associated with pension and OPEBs are reasonable and necessary and anything less than full recovery could be perceived negatively by rating agencies and investors and could impact our creditworthiness; and
- Oncor’s insurance program, and costs associated with that program, including the costs related to self-insurance, are reasonable and necessary.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

STATE OF TEXAS     §  
                                  §  
COUNTY OF DALLAS §

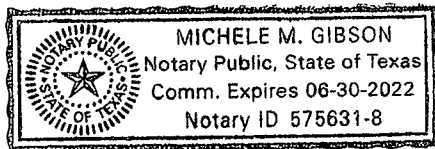
**BEFORE ME**, the undersigned authority, on this day personally appeared Kevin R. Fease, who, having been placed under oath by me, did depose as follows:

My name is Kevin R. Fease. I am of legal age and a resident of the State of Texas. The foregoing direct testimony and the attached exhibit offered by me are true and correct, and the opinions stated therein are accurate, true and correct.



Kevin R. Fease

**SUBSCRIBED AND SWORN TO BEFORE ME** by the said Kevin R. Fease  
this 15<sup>th</sup> day of April, 2022.



Notary Public, State of Texas

**Rate Filing Package Schedules  
Sponsored By Kevin R. Fease**

<u>Schedule</u>	<u>Title of Schedule</u>
II-C-1	Rate of Return Calculation
II-C-1.1	Rate of Return Method
II-C-2.1	Weighted Average Cost of Capital
II-C-2.2	Weighted Average Cost of Preferred Stock
II-C-2.2a	Adjusted Cost of Preferred Stock
II-C-2.3	Weighted Average Cost of Preferred Trust Securities
II-C-2.3a	Adjusted Cost of Preferred Trust Securities
II-C-2.4	Weighted Average Cost of Long-Term Debt
II-C-2.4a	Adjusted Cost of Long-term Debt
II-C-2.5	Weighted Average Cost of Short-Term Debt
II-C-2.5 a – l	Average Daily Balances and Cost of Bank Borrowings
II-C-2.6	Security Issuance Restrictions
II-C-2.7	Capital Requirements and Acquisition Plan
II-C-2.8	Financial Ratios
II-C-2.9	Historical Growth in Earnings, Dividends and Book Value
II-C-2.10	Rating Agency Reports
II-D-3.8	Pension Expense
II-D-3.9	Postretirement Benefits Other Than Pension
II-G-1	Status of Nuclear Decommissioning Funds

**2022 RATE CASE  
ONCOR ELECTRIC DELIVERY COMPANY LLC  
WORKPAPERS FOR  
THE DIRECT TESTIMONY OF  
KEVIN R. FEASE**

Mr. Fease has no supporting workpapers for his direct testimony.

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INDEX TO THE DIRECT TESTIMONY  
OF ELLEN LAPSON, CFA, WITNESS FOR  
ONCOR ELECTRIC DELIVERY COMPANY LLC

I. POSITION AND QUALIFICATIONS ..... 3

II. PURPOSE OF TESTIMONY ..... 4

III. IMPORTANCE OF FINANCIAL STRENGTH ..... 5

    A. Overview ..... 5

    B. Credit Ratings are Measures of Financial Capability ..... 8

IV. EFFECTS OF FINANCIAL LEVERAGE ..... 13

V. CAPITAL STRUCTURE ..... 20

    A. Actual Capital Structure Analysis ..... 25

    B. Pro Forma Analysis..... 29

VI. RECOMMENDATIONS AND CONCLUSIONS ..... 35

AFFIDAVIT..... 37

EXHIBITS

    Exhibit EL-1 Professional Qualification of Ellen Lapson, CFA

    Exhibit EL-2 Credit Rating Scales, Equivalent Ratings

    Exhibit EL-3 Standard & Poor’s, “Criteria: General: Corporate Methodology,” Nov. 19, 2013

    Exhibit EL-4 Moody’s Investors Service, “Ratings Methodology: Regulated Electric and Gas Utilities,” June 23, 2017

    Exhibit EL-5 Fitch Ratings, “U.S. Utilities Power & Gas: Ratings Navigator Companion,” Feb. 9, 2015

**CONFIDENTIAL EXHIBITS FILED UNDER SEAL**

Exhibit EL-6 Moody’s Investors Service, “Credit Opinion: Oncor Electric Delivery LLC,” April 9, 2020 (Confidential)

Exhibit EL-7 Fitch Ratings, “Rating Report: Oncor Electric Delivery Company LLC,” May 7, 2020 (Confidential)

Exhibit EL-8 S&P Global Direct, Ratings Direct, “Oncor Electric Delivery LLC,” April 7, 2020 (Confidential)

Exhibit EL-9 Moody’s Investors Service, “Credit Opinion: Oncor Electric Delivery LLC,” June 3, 2021 (Confidential)

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EXHIBITS cont.

- |               |   |
|---------------|---|
| Exhibit EL-10 | S&P Global Direct, Ratings Direct, "Oncor Electric Delivery Co. LLC," May 14, 2021 (Confidential)                                     |
| Exhibit EL-11 | Fitch Ratings, "Rating Action Commentary: Fitch Affirms Sempra and Subsidiaries, Rating Outlook Stable," April 8, 2021 (Confidential) |
| Exhibit EL-12 | Pro Forma Credit Rating Analysis: Effects of Alternate Capital Structure (Confidential)   |

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1                                    **DIRECT TESTIMONY OF ELLEN LAPSON, CFA**

2                                    **I.     POSITION AND QUALIFICATIONS**

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

5     A.     My name is Ellen Lapson. My business address is 370 Riverside Drive,  
6             New York, NY 10025. I am the principal of Lapson Advisory, an  
7             independent financial consulting firm.

8     Q.     PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND  
9             PROFESSIONAL EXPERIENCE.

10    A.     I am a Chartered Financial Analyst, having earned the CFA designation,  
11             and a Master of Business Administration from New York University Stern  
12             School of Business with specialization in accounting and finance. I have  
13             worked in the capital markets space with particular focus on financing or  
14             analyzing the finances of regulated public utilities for the past 50 years. I  
15             began my career as a securities analyst at Argus Research Corporation  
16             analyzing utility company equity securities. For the next 20 years, I held  
17             several posts at a predecessor of J.P. Morgan as a corporate banker and  
18             investment banker structuring and executing financing transactions for  
19             utility and infrastructure companies. Thereafter, I worked for 17 years, first  
20             as a senior director and then as a managing director at Fitch Ratings, a  
21             major credit rating agency, where I managed analysts who rated credit in  
22             the sectors of electricity and natural gas and project finance and chaired  
23             rating committees. Upon leaving Fitch Ratings ten years ago, I founded  
24             Lapson Advisory. The list of my professional qualifications appears in  
25             Oncor Exhibit EL-1.

26    Q.     WHAT ARE THE PRIMARY RESPONSIBILITIES OF YOUR CURRENT  
27             POSITION?

28    A.     At Lapson Advisory, my role is to advise companies in the utility and  
29             infrastructure sector on how to maintain or improve their access to capital

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1 markets. This often includes expert witness testimony on utility financial  
2 matters. Also, I develop and conduct professional training programs in  
3 corporate finance, project finance, and credit analysis for the gas and  
4 electric sectors.

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

7 A. Yes, the following is a list of docket numbers of my prior or pending  
8 testimony before this Commission: 46416, 46957, 47527, 48323, 48371,  
9 48401, 48929, 49421, 49849, and 51547. Exhibit EL-1 to my testimony  
10 includes a list of my expert witness assignments in various state and federal  
11 jurisdictions.

12 **II. PURPOSE OF TESTIMONY**

13 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

14 A. The objective of my direct testimony is to recommend an appropriate  
15 regulatory capital structure for Oncor Electric Delivery Company LLC  
16 (“Oncor” or the “Company”), as a part of the determination of Oncor’s  
17 authorized cost of capital.

18 The relative amounts of equity and debt authorized in the capital  
19 structure to support the assets employed by the utility to serve customers  
20 are a major input in the Commission’s finding regarding the cost of capital.  
21 This, in turn, will affect Oncor’s revenue requirements, which drives Oncor’s  
22 operating cash flow when the rates determined in this proceeding are in  
23 effect and consequently the financial strength and resilience of the  
24 Company.

25 My direct testimony, the attached exhibits, and the associated  
26 workpapers were prepared by me or under my direction, supervision, or  
27 control and are true and correct.

28 Q. HOW IS THE BALANCE OF YOUR DIRECT TESTIMONY ORGANIZED?

29 A. The remainder of my direct testimony includes the following sections:

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- 1           • Section III discusses the importance of financial strength at all times  
2           for a utility with responsibility for serving customers' needs and  
3           explains that credit ratings are considered an important measure of  
4           financial capability and are highly regarded by capital market  
5           investors.
- 6           • Section IV discusses the effect of a company's capital structure on  
7           its financial strength and credit quality. This section explains how  
8           cash flow measures are used as indicators of financial leverage or  
9           financial flexibility.
- 10          • Section V explores Oncor's current financial status and ability to  
11          maintain its current credit ratings. I present a model that shows the  
12          effect of retaining the capital structure of 42.5% equity and 57.5%  
13          long-term debt (Oncor's authorized capital structure since October  
14          13, 2017) and an alternate capital structure made up of 45% equity  
15          and 55% long-term debt (Oncor's approximate actual capital  
16          structure at December 31, 2021).
- 17          • Section VI presents my conclusions and recommendation that  
18          Oncor's proposed capital structure of 45% equity and 55% long-term  
19          debt be approved.

20           **III.    IMPORTANCE OF FINANCIAL STRENGTH**

21                           **A. Overview**

22    Q.    DOES CAPITAL STRUCTURE AFFECT THE COMPANY'S FINANCIAL  
23           RESILIENCY AND ABILITY TO ATTRACT CAPITAL?

24    A.    Yes. Major factors determining the Company's operating cash flow are the  
25           regulatory capital structure and authorized return on equity capital, in  
26           combination with certain regulatory accounting measures adopted by the  
27           Commission. The resultant operating cash flow determines Oncor's  
28           financial strength, liquidity, and its ability to attract capital, all of which

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1 enable the Company to fulfill the utility’s public service mandate and satisfy  
2 customers’ demands.

3 Q. IS ONCOR’S CONTINUED FINANCIAL STRENGTH IMPORTANT?

4 A. Yes. Financial strength is a critical resource that underlies Oncor’s ability  
5 to fulfill its obligation to meet the needs of electricity consumers for reliable  
6 service. Sound financial condition enables a company not only to cover its  
7 operating expenses but also to attract capital on favorable terms during all  
8 phases of the capital market cycle, in good times and bad.

9 The business of electricity delivery (transmission and distribution) is  
10 capital-intensive. The Company has an obligation to invest continuously in  
11 long-lived fixed assets to handle the growth in connections, comply with  
12 changing governmental mandates and safety regulations, replace  
13 infrastructure at the end of its useful life, and enhance the resilience and  
14 reliability of its systems. These needs will require steady access to the bond  
15 market for funding and to sources of liquidity and credit.

16 Oncor has invested approximately \$10.5 billion over the five-year  
17 period from 2017-2021, or an average of almost \$2.1 billion per year,  
18 including approximately \$2.5 billion in each of 2020 and 2021.<sup>1</sup> The  
19 Company’s capital expenditures are estimated to be \$2.8-\$3.0 billion in  
20 2022 and to average approximately \$3.0-\$3.1 billion per year in each year  
21 2023-2026.<sup>2</sup> These capital spending needs exceed cash flow produced by  
22 internal sources, resulting in projected cash shortfalls of \$800 million per  
23 annum or more that must be funded by borrowing or equity infusions from  
24 Oncor’s owners. Therefore, continuing access to external debt and equity  
25 capital is needed to fund the projected investment in fixed assets.

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<sup>1</sup> Oncor Electric Delivery Company LLC, Annual Report on Form 10-K for the year ended December 31, 2021, “Statements of Consolidated Cash Flows” and page 38.

<sup>2</sup> Ibid. at 39.

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1 Q. ASIDE FROM FUNDING PLANNED CAPITAL INVESTMENT PROJECTS,  
2 WHAT OTHER NEEDS DOES ONCOR HAVE THAT REQUIRE GOOD  
3 ACCESS TO CAPITAL MARKETS AND STRONG FINANCIAL  
4 CAPABILITY?

5 A. Oncor also depends upon external debt issuance in the capital market to  
6 refund maturities of long-term bonds, including approximately \$2.0 billion of  
7 maturing bonds in the next five years.<sup>3</sup> Oncor also needs to maintain a  
8 strong credit standing in order to access short-term borrowings from the  
9 commercial paper market or under its banking facilities on favorable terms.

10 Q. WHY IS ACCESS TO SHORT-TERM BORROWING IMPORTANT TO  
11 ONCOR?

12 A. For interim and short-term funding, Oncor depends upon the issuance of  
13 commercial paper notes (“CP”) supported by bank credit through a \$2 billion  
14 revolving credit facility renewed in 2021 for a term of five years. Oncor uses  
15 these liquidity sources to bridge seasonal mismatches between revenues  
16 and expenses and to pay for capital expenditures prior to the issuance of  
17 long-term mortgage bonds. Also, natural disasters such as tornadoes or  
18 ice storms occasionally require Oncor to make extraordinary and  
19 unexpected expenditures to restore service. For this purpose, Oncor must  
20 maintain strong credit with its counterparties (such as suppliers and  
21 equipment vendors, work crews, contractors, and providers of other  
22 emergency services) as well as sources of short-term funding to perform  
23 immediate restoration. With strong credit and access to funding, there is no  
24 need to delay work until the Company can raise long-term capital in the  
25 public market. Electric consumers and the public interest benefit from the  
26 utility’s financial strength, liquidity, and access to capital.

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<sup>3</sup> Bond maturities are: \$488 million in 2022 (after taking into account \$400 million principal amount of senior secured notes that were redeemed March 1, 2022), \$500 million in 2024, \$974 million in 2025 and \$38 million in 2026. Oncor Annual Report on Form 10-K for the year ended December 31, 2021, at page 39.

**REDACTED VERSION**

1                   **B. Credit Ratings are Measures of Financial Capability**

2 Q. ARE THERE OBJECTIVE EVALUATIONS OF CORPORATE FINANCIAL  
3 STRENGTH THAT ARE RECOGNIZED BY BANKERS, CREDIT  
4 COUNTERPARTIES, AND INVESTORS?

5 A. Yes. Long-term credit ratings by recognized credit rating agencies (“CRAs”)  
6 evaluate the business and financial characteristics and risks of companies  
7 against transparent criteria, taking into consideration key factors such as  
8 the stability and predictability of operating cash flow in relation to the amount  
9 of debt and other financial commitments. The long-term credit rating is a  
10 measure of the estimated risk of default on payments and serves as a  
11 widely accepted measure of a company’s financial soundness and liquidity.

12 Q. WHAT ARE ONCOR’S LONG-TERM CREDIT RATINGS AT APRIL 1,  
13 2022?

14 A. The three most widely recognized CRAs are Moody’s Investors Service  
15 (“Moody’s”), Standard & Poors (“S&P”), and Fitch Ratings (“Fitch”). Two  
16 CRAs, S&P and Fitch, publish explicit long-term unsecured credit ratings  
17 that S&P calls its “Issuer Credit Rating” and Fitch identifies as its “Issuer  
18 Default Rating.” Each of these is an unsecured rating that signifies the  
19 estimated risk of default.

20                   **Table EL-1: Oncor’s Long-Term Credit Ratings<sup>4</sup>**  
21                   **(as of April 1, 2022)**

<b>Rating Agency</b>	<b>Issuer Credit Rating (Senior Unsecured)</b>	<b>Senior Secured Mortgage Bond Rating</b>
S&P	A	A+
Fitch	BBB+	A
Moody’s	Baa1 (implied)	A2

22

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<sup>4</sup> For the correspondences of the credit rating symbols of the three major CRAs, please see Exhibit EL-2.

**REDACTED VERSION**

1 Moody's long-term unsecured issuer rating for Oncor is shown in Table 1  
2 as "Implied." While Moody's does not routinely disclose a long-term  
3 unsecured issuer credit rating for Oncor, its rating policy is to rate the senior  
4 secured mortgage bonds of utilities two notches higher than its undisclosed  
5 senior unsecured rating. Following this pattern, the current "implied" long-  
6 term unsecured rating of Oncor by Moody's is Baa1, equivalent to the BBB+  
7 rating by Fitch.

8 Each CRA publishes a rating of Oncor's senior secured mortgage  
9 bonds, as shown in the right-most column of Table EL-1 above.

10 Q. IS IT UNUSUAL FOR A COMPANY TO HAVE DIVERGENT CREDIT RATINGS  
11 FROM DIFFERENT CREDIT RATING AGENCIES?

12 A. No. Since each of the CRAs applies its own methodologies to assign  
13 ratings, such discrepancies do occur. When there are different ratings by  
14 two or three agencies, investors reconcile the ratings.

15 Q. WHEN SUCH DIFFERENCES OCCUR, HOW DO INVESTORS  
16 EVALUATE THE CREDIT RATINGS?

17 A. One conventional approach is the "middle of three ratings" approach. Using  
18 the "middle of the ratings" method, the highest rating is S&P's A rating, while  
19 Fitch and Moody's agree on a rating of BBB+/Baa1. So, Oncor's three  
20 ratings are reconciled using the "middle rating" of BBB+/Baa1. This  
21 approach is demonstrated in the lower half of Exhibit EL-2.<sup>5</sup>

22 Q. WHY ARE ONCOR'S SENIOR SECURED RATINGS FROM EACH CRA  
23 HIGHER THAN ONCOR'S ISSUER CREDIT RATINGS OR UNSECURED  
24 DEBT RATING FROM THE SAME AGENCY?

25 A. When valuable collateral is pledged to secured bondholders or lenders, if  
26 the borrower were to default on payments, then the secured creditors can

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<sup>5</sup> A less common approach assigns points and computes the average of the ratings. Under that method, the average of three ratings for Oncor is A-/A3. See Exhibit EL-2.



**REDACTED VERSION**

1 expect to have a higher level of recovery than may be the case for senior  
2 unsecured creditors. In recognition of the fact that the secured obligations  
3 of rate-regulated utilities have demonstrated high recoveries in historical  
4 bankruptcies, the three CRAs assign ratings to secured debt instruments  
5 that are higher than the explicit or implied rating of senior unsecured debt  
6 of the same company. In this case, Moody's and Fitch rate Oncor's senior  
7 secured mortgage bonds two notches higher than Oncor's implied  
8 unsecured or issuer credit rating, while S&P's secured mortgage bond  
9 rating for Oncor is one notch higher than the Company's unsecured issuer  
10 default rating. The secured ratings apply only to specific debt instruments  
11 that include an explicit pledge of collateral, and do not apply to the general  
12 or unsecured obligations of the entity.

13 Q. WHICH RATINGS MORE APPROPRIATELY MEASURE A COMPANY'S  
14 FINANCIAL SOUNDNESS, THE SECURED INSTRUMENT RATINGS OR  
15 THE UNSECURED ISSUER CREDIT RATINGS?

16 A. The long-term unsecured issuer credit rating at S&P, issuer default rating  
17 at Fitch, and implied unsecured debt rating at Moody's are the relevant  
18 indicators of a company's ability to make timely payments on obligations,  
19 and as an indicator of financial soundness. The unsecured rating  
20 represents the credit rating agency's degree of assurance that a company  
21 can make its committed payments and fulfill all its financial obligations  
22 during the rating horizon. In the case of utilities in the investment grade  
23 category, the rating horizon is typically three to five years. The unsecured  
24 rating is meaningful for comparing companies' financial stability on an  
25 equivalent basis, before considering expected recovery of principal through  
26 a bankruptcy process after a company's default. For vendors, suppliers,  
27 employees, and holders of CP notes, the unsecured rating or issuer credit  
28 rating is the relevant measure of creditworthiness.

**REDACTED VERSION**

1 Q. FOR WHAT PURPOSE ARE ONCOR'S SENIOR SECURED DEBT  
2 RATINGS MORE RELEVANT?

3 A. Oncor has issued all of its corporate debt pursuant to a pledge of most of  
4 its fixed assets as collateral to secured bondholders and bank revolving  
5 credit lenders. Oncor's senior secured debt ratings combine the probability  
6 of default and expected higher value of recovery of principal in the event of  
7 default. The presence of collateral pledged to the bondholders and the  
8 resultant secured debt ratings influence Oncor's cost of debt, as explained  
9 in the direct testimony of Company witness Mr. Kevin R. Fease.

10 Q. WHEN CONSIDERING WHETHER A COMPANY IS OF INVESTMENT-  
11 GRADE OR SUB-INVESTMENT GRADE STATUS, WHICH RATINGS  
12 ARE RELEVANT?

13 A. The long-term unsecured issuer credit rating (or in the case of Moody's, the  
14 implied unsecured debt rating) is relevant for that purpose.

15 Q. ARE ONCOR'S UNSECURED LONG-TERM CREDIT RATINGS IN THE  
16 INVESTMENT GRADE CATEGORY?

17 A. Yes, they are.

18 Q. WHEN A COMPANY'S LONG-TERM CREDIT RATINGS ARE WITHIN  
19 THE INVESTMENT GRADE CATEGORY, DOES THAT MEAN THAT  
20 THERE IS NO NEED TO IMPROVE OR SAFEGUARD THE COMPANY'S  
21 FINANCIAL STRENGTH AND FLEXIBILITY?

22 A. No. Having investment grade ratings in the BBB range (S&P and Fitch) or  
23 Baa range (Moody's) is a minimum requirement for sustainable  
24 management of a public utility, but a higher rating gives greater stability and  
25 ability to withstand financial stress. In my professional experience,  
26 maintaining unsecured debt ratings (that is, issuer ratings) in the single-A  
27 category provides a greater level of assurance of the ability to meet all  
28 needs, even under adverse circumstances and at all phases of the capital  
29 market cycle.

**REDACTED VERSION**

1 Q. HOW OR WHEN DO UTILITIES AND CONSUMERS BENEFIT FROM THE  
2 UTILITY'S STRONGER FINANCIAL CAPABILITY?

3 A. Utilities' access to long-term and short-term debt funding varies depending  
4 upon capital market cycles. During normal periods in the financial markets,  
5 including the present moment, rate-regulated utilities with investment grade  
6 credit ratings typically are able to issue new debt instruments in large  
7 amounts at any level of ratings, while sub-investment grade credits have  
8 less assured access to new funding. But, times are not always as favorable  
9 to issuers in the capital market as the present market phase. During periods  
10 of financial market distress (such as September 2008 through early 2010,  
11 or February to March 2020), access to the long-term and short-term debt  
12 markets becomes constrained not only for sub-investment grade credits but  
13 also for those in the two lowest ratings in the investment grade category.  
14 These are unsecured ratings of BBB and BBB- (from S&P or Fitch) or the  
15 equivalent Moody's ratings of Baa2 and Baa3.

16 During past times of market transition or distress, issuers with  
17 unsecured credit ratings in the range of low A (A- or A3) to high A (A+ or  
18 A1) were able to sell bonds in the long-term market when companies with  
19 credit ratings in the low BBB (Baa) categories were hesitant to fund or  
20 refund maturing debt or carry out their capital expenditures as planned.

21 Q. WHAT ARE THE ADVERSE CONSEQUENCES FACING UTILITIES WITH  
22 LOWER CREDIT RATINGS OR LESSER FINANCIAL STRENGTH  
23 DURING PERIODS OF MARKET CONSTRAINT?

24 A. Companies with weaker access to capital may have no alternative but to  
25 draw heavily on their bank lines during the period of market stress. They  
26 experience higher costs of funding and a scarcity of new bank credit  
27 commitments and face a greater risk of illiquidity. Typically, bank capital is  
28 constrained at the very time of financial market stress.

**REDACTED VERSION**

1           While Oncor did not lose access to funding from 2008 to 2010 or in  
2 the first quarter of 2020, there is no assurance that future periods of financial  
3 market instability will be as benign for Oncor. Capital markets may be  
4 constrained at the very time when Oncor faces an unexpected financing  
5 need. At such times, having a very sound equity position and lower financial  
6 leverage becomes particularly important.

7           In summary, higher investment grade ratings (unsecured ratings in  
8 the A- or A category, and equivalent Moody’s ratings of A3 or A2) provide  
9 greater financial flexibility and access to debt capital at all times in the  
10 market cycle, even in distressed markets. Conversely, lower unsecured  
11 ratings in the range of BBB to BBB- (or Baa2 to Baa3) can put a utility in  
12 circumstances of reduced access to funding and at risk of loss of liquidity in  
13 the event of a credit downgrade or market stress occurrence.

14                           **IV. EFFECTS OF FINANCIAL LEVERAGE**

15 Q. IS A COMPANY’S CAPITAL STRUCTURE A MAJOR DETERMINANT OF  
16 THE COMPANY’S FINANCIAL RISK AND ITS FINANCIAL STRENGTH?

17 A. Yes, it is. When there is more equity as a proportion of total capital, there  
18 is a smaller proportion of debt. All other things being equal, more equity  
19 capital in the capital structure and a lower proportion of debt will improve a  
20 company's financial resilience and its ability to maintain solvency despite  
21 adverse circumstances. Regarding the concept of financial risk, Dr. Roger  
22 Morin explains:

23           Financial risk stems from the method used by the company to  
24 finance its investments and is reflected in its capital structure.  
25 It refers to the additional volatility imparted to income available  
26 to common shareholders by the employment of fixed cost  
27 financing, that is, debt and preferred capital. Although the use  
28 of fixed-cost capital can offer financial advantages through the  
29 possibility of leverage of earnings (financial leverage), it  
30 creates additional risk due to the fixed contractual obligations  
31 associated with such capital. Debt and preferred stock carry  
32 fixed charge burdens that must be supported by the  
33 company’s earnings before any return can be made available

**REDACTED VERSION**

1                   to the common shareholder. The greater the proportion of  
2                   fixed charges to the total income of the company, the greater  
3                   the financial risk.<sup>6</sup>

4    Q.    FROM THE PASSAGE CITED ABOVE, IT MAY SEEM THAT FINANCIAL  
5           RISK DUE TO A GREATER PROPORTION OF DEBT FINANCING IN THE  
6           CAPITAL STRUCTURE AFFECTS ONLY COMMON SHAREHOLDERS.  
7           IS THAT THE CASE?

8    A.    No. A greater proportion of debt (and correspondingly lower proportion of  
9           equity) in the capital structure increases not only shareholders' financial risk  
10           due to the increased volatility of earnings, but it also raises the financial risk  
11           of all lenders, bondholders, and trade creditors through the increased risk  
12           of default. Dr. Morin expresses the result of financial leverage as follows:  
13           "[m]ore generally, a financial risk premium is required by both bondholders  
14           and common shareholders."<sup>7</sup>

15                    There are also implications for utility customers. In my professional  
16                    experience, public utilities with greater financial leverage and heightened  
17                    default risk typically are less able to fund investments in their network,  
18                    leading to lower levels of reliability and customer service. In summary,  
19                    funding the utility with a greater proportion of debt capital and a lower  
20                    proportion of equity capital increases financial risk for shareholders,  
21                    bondholders, lenders, and trade creditors, while increasing reliability and  
22                    service quality risk for utility consumers.

23    Q.    HOW DO THE COMMISSION'S ORDERS AFFECT ONCOR'S CAPITAL  
24           STRUCTURE?

25    A.    On October 13, 2017, at the conclusion of Docket No. 46957, the  
26           Commission authorized a capital structure for Oncor comprised of long-term  
27           debt at 57.5% and equity at 42.5%. That limits the amount of common

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<sup>6</sup> Morin, Roger A. Ph. D., *New Regulatory Finance*, Public Utility Reports, Inc., 2006, 45-46.

<sup>7</sup> *Ibid.*, 47.

**REDACTED VERSION**

1 shareholder equity upon which the Company may earn its authorized return  
2 on equity to 42.5% of total long-term capital.<sup>8</sup> Also, Oncor is subject to a  
3 Debt-to-Equity Ratio Commitment that limits Oncor's debt to total capital as  
4 follows:

5 Oncor's debt-to-equity ratio as determined by the Commission  
6 shall at all times remain in compliance with the debt-to-equity  
7 ratio established from time to time by the Commission for  
8 ratemaking purposes.<sup>9</sup>

9 Taking these two considerations together, the Commission's orders set very  
10 firm guideposts for Oncor's capital structure. Oncor must not have equity  
11 capital less than 42.5% of capital because if it did so, its debt would exceed  
12 57.5% of capital and thus violate the commitment cited above regarding the  
13 debt limit. On the other hand, the Commission has approved rates that do  
14 not provide Oncor any return upon equity in excess of 42.5% of total capital.  
15 Although Oncor is theoretically free to boost its equity above 42.5%, if it  
16 continued that position for any sustained period without earning a return on  
17 capital, it would be an inequitable burden upon Oncor's investors. Those  
18 investors are unlikely to offer their capital for the benefit of customers  
19 without any possibility of return.

20 Q. IS ONCOR'S CURRENT REGULATORY CAPITAL STRUCTURE  
21 COMMON AMONG ELECTRIC UTILITY COMPANIES OPERATING IN  
22 THE UNITED STATES?

23 A. No, not at all. Over the past several decades, regulatory capital structures  
24 for investor-owned operating utilities in the U.S. are generally close to 50%  
25 equity and 50% debt. In fact, in regulatory decisions for investor-owned  
26 electric utilities over the past two to three years, a maximum equity

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<sup>8</sup> In the calculation of the authorized equity upon which the Commission-authorized return on equity is based, Oncor's equity is reduced by excluding \$676 million of goodwill related to merger accounting for the InfraREIT acquisition pursuant to Commission order in Docket No. 48929.

<sup>9</sup> Docket No. 47675, Order (Mar. 8, 2018) at Finding of Fact No. 56.

**REDACTED VERSION**

1 component limited to 42.5% of total capital is well below the norm. As Oncor  
2 witness Mr. Dylan W. D'Ascendis indicates in his direct testimony and  
3 workpapers, the common equity-to-capital ratios of the operating utilities  
4 that are owned by the 14 companies in his proxy group average  
5 approximately 50.7% of capital; the median equity-to-capital ratio of that  
6 group of operating utilities is 51.2%; that is, half the companies have equity  
7 ratios greater than the median of 51.2%. Among those utility companies,  
8 87% have equity-to-capital ratios greater than 45%. The average and  
9 median equity ratios of the utilities in Mr. D'Ascendis' proxy group are  
10 consistent with my observations of the operating utilities in the U.S. investor-  
11 owned electric utility sector over the past several decades as well as at the  
12 current time.

13 Q. HOW DOES ONCOR'S AUTHORIZED REGULATORY CAPITAL  
14 STRUCTURE AFFECT ITS FINANCIAL STRENGTH AS ASSESSED BY  
15 CREDIT RATING AGENCIES?

16 A. All three major CRAs use financial leverage as a key factor in evaluating  
17 financial strength. Each of the CRAs publishes its rating criteria specifying  
18 the "benchmark" financial ratios that the agency considers in its analysis of  
19 a utility's financial strength or financial risk. Although each rating agency  
20 has slightly different financial benchmarks and uses its own terminology to  
21 describe its benchmark ratios, a common element across all three agencies  
22 is that lower financial leverage is associated with stronger credit ratings and  
23 higher financial leverage is associated with lower credit ratings.

24 Q. HOW DO RATING AGENCIES QUANTIFY FINANCIAL LEVERAGE?

25 A. All three agencies have preferred measures of financial leverage that  
26 compare a measure of operating cash flow in relation to total debt. These  
27 metrics are identified as the key or core financial credit ratios and are  
28 important benchmarks in the credit rating process. For convenience, I refer  
29 to these ratios as "Key Cash Flow Leverage Metrics." In these benchmark

**REDACTED VERSION**

1 ratios, either the numerator or the denominator is total debt (or total adjusted  
2 debt). The Key Cash Flow Leverage Metrics may differ among the agencies  
3 as total debt is adjusted by each CRA according to its own published  
4 methodologies, such that leases, unfunded pension or post-retirement  
5 benefits, or other off-balance sheet obligations may be added to debt. Since  
6 there are small differences among the methods employed by three CRAs,  
7 it is preferable to deal with each one individually.

8 Q. HOW DOES S&P INCORPORATE FINANCIAL LEVERAGE AND CAPITAL  
9 STRUCTURE IN ITS RATING DECISIONS?

10 A. S&P explains in its corporate rating criteria (applicable to U.S. investor-  
11 owned electric utilities, including Oncor) that capital structure and financial  
12 leverage are major components in its credit rating assessments. S&P's  
13 fundamental measures of a company's financial risk are two alternate cash  
14 flow measures of financial leverage, and these form a major part of the  
15 Issuer Credit Rating that S&P assigns to the company:

16 The financial risk profile is the outcome of decisions that  
17 management makes in the context of its business risk profile  
18 and its financial risk tolerances. This includes decisions about  
19 the manner in which management seeks funding for the  
20 company and how it constructs its balance sheet. It also  
21 reflects the relationship of the cash flows the organization can  
22 achieve, given its business risk profile, to the company's  
23 financial obligations. The criteria use cash flow / leverage  
24 analysis to determine a corporate issuer's financial risk profile  
25 assessment.<sup>10</sup>

26 For S&P, the two alternate metrics that its analysts consider as the  
27 core indicators of financial leverage are: first, the ratio of Funds From  
28 Operations ("FFO") to Debt, and second, the ratio of Debt to Earnings  
29 Before Interest, Income Tax, Depreciation, and Amortization ("EBITDA").

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<sup>10</sup> Ex. EL-3 - Standard & Poor's, "*Criteria: General: Corporate Methodology*", Nov. 19, 2013, Para. 5.



**REDACTED VERSION**

1 The measure that S&P calls “FFO” is actually a variant of EBITDA.<sup>11</sup> Since  
2 debt is the denominator of one ratio and the numerator of the second ratio,  
3 adopting Oncor’s recommended capital structure and lowering its debt to  
4 55% of capital from 57.5% would improve both of those ratios, indicating  
5 reduced financial leverage. In other words, the Company will have more  
6 FFO to Debt and Debt will be a smaller portion of Earnings.

7 Q. DOES MOODY’S FOLLOW THE SAME METHODOLOGY FOR  
8 ASSESSING FINANCIAL STRENGTH AS S&P?

9 A. Not exactly. Moody’s approach is not identical to that of S&P, but Moody’s  
10 has similar benchmark ratios for financial leverage. Like S&P and Fitch,  
11 Moody’s puts a great reliance on ratios that utilize a measure of cash flow  
12 in relationship to total debt. Moody’s places 40% of the total weight of its  
13 rating analysis on four quantitative measures of financial strength.<sup>12</sup> Three  
14 of the four ratios are based upon a metric of operating cash flow that  
15 Moody’s calls Cash Flow from Operations before Changes in Working  
16 Capital (“CFO pre-WC”). Of the four ratios, the most important financial  
17 ratio in Moody’s analysis is CFO pre-WC divided by Total Debt. The other  
18 cash flow ratios Moody’s applies are CFO pre-WC less Dividends divided  
19 by Total Debt and CFO pre-WC divided by Interest Expense. As a fourth  
20 measure, Moody’s also considers the balance sheet ratio of Debt to Total  
21 Capital.

22 Since all four of Moody’s four ratios have Debt (or a metric tied to  
23 Debt) as either their denominator or numerator, lowering Oncor’s authorized  
24 debt to 55% of capital from 57.5% would enhance its Key Cash Flow

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<sup>11</sup> Standard & Poor’s, *ibid.*, Para. 12.

<sup>12</sup> In addition, Moody’s places a 25% weight on Regulatory Framework, 25% on Ability to Recover Costs and Earn Returns, and 10% on Diversification. See Ex. EL-4 - Moody’s Investors Service, “*Ratings Methodology: Regulated Electric and Gas Utilities*”, June 23, 2017, page 4.

**REDACTED VERSION**

1 Leverage Metrics and improve Oncor’s financial status with credit rating  
2 agencies and fixed income investors.

3 Q. DOES FITCH RATINGS PLACE A SIMILAR EMPHASIS ON FINANCIAL  
4 STRENGTH AND FINANCIAL LEVERAGE METRICS IN ITS RATINGS  
5 ANALYSIS?

6 A. Yes. Fitch states that companies with superior financial characteristics  
7 have the ability to, “manage periods of volatility without eroding credit  
8 quality. The more conservatively capitalized an issuer, the greater its  
9 financial flexibility... [and] the better able to cope with unexpected events.”<sup>13</sup>  
10 By “conservatively capitalized,” Fitch means utilizing more equity and  
11 commensurately less debt.

12 In a manner similar to S&P and Moody’s, Fitch identifies cash flow-  
13 based leverage measures as its principal indicators of financial strength.  
14 Fitch’s first measure is a ratio of Funds from Operations (“FFO”) divided by  
15 Total Debt;<sup>14</sup> its alternate metric is the ratio of Total Debt to EBITDA. What  
16 Fitch calls FFO is really the same as Moody’s CFO before Working Capital,  
17 so Fitch’s ratio of FFO to Total Debt and Moody’s ratio of CFO pre-WC to  
18 Total Debt are virtually the same. Fitch’s second ratio is Total Debt to  
19 EBITDA, which is also S&P’s second financial ratio. Since debt is the  
20 denominator of one Fitch ratio and the numerator of the second Fitch ratio,  
21 adopting Oncor’s requested capital structure and lowering debt to 55% of  
22 capital from 57.5% would enhance both of those ratios.

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<sup>13</sup> See Ex. EL-5 - Fitch Ratings, “*U.S. Utilities Power & Gas: Ratings Navigator Companion*”, Feb. 9, 2015.

<sup>14</sup> Despite having the same acronym, S&P’s FFO and Fitch’s FFO are not the same. S&P calls by the name FFO a number derived from income statement figures that is akin to EBITDA. The source of Fitch’s FFO measure is data taken from the Statement of Cash Flow, which is net of interest expense. Aside from that difference, each agency makes its own adjustments to arrive at its measure of FFO.

**REDACTED VERSION**

**V. CAPITAL STRUCTURE**

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Q. WHAT IS ONCOR'S REGULATORY CAPITAL STRUCTURE AS OF DECEMBER 31, 2021?

A. Oncor's regulatory capital structure as of December 31, 2021, consists of common equity of approximately 45% of the Company's long-term capital with the remaining 55% of regulatory capital being long-term debt.

Q. HOW DOES ONCOR'S CAPITAL STRUCTURE COMPARE WITH THE REGULATORY CAPITAL AUTHORIZED BY THE COMMISSION IN THE LAST FULL RATE PROCEEDING IN 2017?

A. Oncor's current capital structure contains more equity and less debt than the Company's authorized regulatory capital structure. In the third and fourth quarters of 2021 immediately prior to December 21, 2021, Oncor's equity and long-term debt closely approximated the authorized 42.5% equity to 57.5% long-term debt ratios authorized by the Commission at the completion of Docket No. 46597 in September 2017. On December 21 and 22, 2021, Oncor paid down \$450 million of debt with the proceeds of \$450 million of additional equity invested by Oncor's owners. These transactions had the effect of raising Oncor's equity ratio and reducing debt leverage.

Q. WHY WOULD ONCOR'S OWNERS INVEST \$450 MILLION OF ADDITIONAL EQUITY BEYOND THE EQUITY AUTHORIZED BY THE COMMISSION FOR COMPENSATION IN RATES?

A. My understanding is that the owners' intent was to demonstrate that their request for a 45% equity and 55% debt capital structure in this rate application is backed up by a solid and credible commitment to provide equity investment at that level, and that the owners have the resources to follow through. However, in my professional experience, it would be unreasonable and economically unsustainable for the investors to persist in investing excess equity capital in the Company over and above the level

**REDACTED VERSION**

1 that is used to formulate Oncor’s transmission and distribution revenue  
2 requirements.

3 Q. DID ONCOR’S OWNERS MAKE A SIMILAR INVESTMENT OF EQUITY  
4 CAPITAL IN DECEMBER 2020?

5 A. Yes. In December 2020, intending to demonstrate their willingness and  
6 ability to increase Oncor’s equity capital, the Company’s owners made  
7 equity infusions in the amount of \$431 million on December 22-23, 2020,  
8 and the Company used the proceeds to reduce debt of a similar amount.  
9 However, in May 2021, the Commission approved a request to extend the  
10 rate filing deadline to June 1, 2022. Subsequently, in July 2021 Oncor  
11 returned the \$431 million of excess equity capital as a distribution to its  
12 owners and increased debt by a similar amount to bring the regulatory  
13 capital structure back to the approximate level of 42.5% equity and 57.5%  
14 long-term debt that conforms to the Commission’s authorized capital  
15 structure.<sup>15</sup> The 42.5%/57.5% capital structure prevailed for most of the  
16 third and fourth quarters of 2021, until an infusion of \$450 million of  
17 additional equity and reduction of debt in December 2021. The investments  
18 of equity in late December of 2020 and 2021 were in addition to other  
19 regular ongoing equity investments during the course of those years that  
20 the owners made to keep the capital structure in balance as the capital  
21 spending budget required additional financing with external capital.

22 Q. HOW DO EXCESS EQUITY INVESTMENTS IN ONCOR AND DEBT  
23 REDUCTIONS AT THE END OF 2020 AND 2021 AFFECT THE  
24 CALCULATION OF ONCOR’S CREDIT RATING METRICS?

25 A. Credit ratios as calculated by the three major CRAs in their reviews in mid-  
26 2021 were based on the 2020 financial statements, which incorporated the  
27 reported December 31, 2020 debt (reduced) and equity (enhanced) due to

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<sup>15</sup> For convenience, I will refer to these two special injections of equity in 2020 and 2021 as “excess” because they result in equity balances that exceed the 42.5% Commission-authorized regulatory capital structure.