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APPLICATION OF ONCOR ELECTRIC DELIVERY COMPANY LLC FOR AUTHORITY TO CHANGE RATES	**§**	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

DIRECT TESTIMONY

AND

WORKPAPERS

OF

STEVEN HUNT

ON BEHALF OF THE

OFFICE OF PUBLIC UTILITY COUNSEL

AUGUST 26, 2022

SOAH DOCKET NO. 473-22-2695
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DIRECT TESTIMONY AND WORKPAPERS OF STEVEN HUNT

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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is Steven D. Hunt. I am a Managing Director of the firm GDS Associates, Inc. ("GDS"). My business address is 111 N. Orange Avenue, Suite 710, Orlando, Florida 32801.

Q. ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN THIS PROCEEDING?

A. I am presenting testimony on behalf of the Office of Public Utility Counsel ("OPUC").

Q. PLEASE OUTLINE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I hold a Bachelor of Science degree in Business with a major in Accounting from Virginia Polytechnic Institute and State University ("Virginia Tech"). Additionally, I earned a Master's degree in Accounting and Information Systems from Virginia Tech. I am also a certified public accountant licensed in Washington, D.C.

I am an accounting and rate specialist with 20 years of experience on accounting, audit, and cost-of-service ("COS") rate regulation matters in the electric, natural gas, and oil industries. I began my career in the regulated energy industry at the Federal Energy Regulatory Commission ("FERC"). From 2002-2020, I worked in the FERC Regulatory Accounting and Audit programs as an Accounting Analyst, Accounting Manager, Deputy Chief Accountant, and Chief Accountant. In all of these roles I worked directly with FERC's rate and legal programs on numerous electric and natural gas industry focused accounting request filings, rate filings, rulemakings, accounting guidance letter orders, and

policy statements. Additionally, I was a leading author or reviewing official for most FERC accounting orders and audit reports in the electric and natural gas industries for the 15 years prior to my departure. As a leader in FERC's audit program, I was directly involved in the initial risk assessment processes to determine audit focus areas, initial and supplemental discovery requests and interrogation, presenting findings of fact through draft audit reports, defending the findings of fact based on the evidentiary record and FERC precedent, and drafting final public audit reports that presented the scope of audit work, audit methodologies, and findings and recommendations. Through all of my FERC experiences, I frequently evaluated ratemaking concepts and precedent, utility operations, customer concerns, public utility needs, and financial accounting and income tax requirements to identify and resolve macro and micro regulatory issues.

In August 2020, I began working at GDS Associates, Inc. as a utility consultant. During my time at GDS, I have been an expert witness in three fully litigated retail rate proceedings in Texas and Vermont focusing on electric and natural gas revenue requirement issues and led rate reviews on many wholesale rate proceedings before FERC.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. Yes. I have submitted testimony before the Public Utility Commission of Texas.

II. PURPOSE AND SCOPE

Q. WHAT IS THE PURPOSE AND SCOPE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose and scope of my testimony is to evaluate Oncor Electric Delivery Company LLC's ("Oncor" or "Company") rate application requesting authority to change rates

("Application").[1] My testimony specifically identifies certain findings where I believe Oncor's proposed revenue requirement is not reasonable and recommends adjustments to the revenue requirement to resolve the identified finding. In the discussion below, I present six findings and propose recommendations to address each finding.

Q. UNDER WHAT AUTHORITY IS ONCOR REQUESTING TO CHANGE ITS RATES?

A. Oncor's Application was filed under the requirements of the Public Utility Regulatory Act, Texas Utilities Code Title 2 ("PURA") §§ 36.102 and 36.157, the Public Utility Commission of Texas ("Commission") rate review schedule rule found within the Texas Administrative Code ("TAC"), specifically, 16 TAC §25.247, and the Commission's order in Docket No. 52100.[2]

III. SUMMARY OF FINDINGS AND RECOMMENDATIONS

Q. PLEASE SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS IN THIS PROCEEDING.

A. Based on my evaluation of the Application and Oncor's responses to the parties' requests for information, I have made the following findings and recommendations:

A. Depreciation – Oncor has overstated its depreciation expense by $36,629,974 million, related to three overstated negative net salvage percentages for Accounts 352, 355 and

[1] *Application of Oncor Electric Delivery Company LLC for Authority to Change Rates*, Docket 53601 (May 13, 2022). ("Application").

[2] *Application of Oncor Electric Delivery Company LLC for Good-Cause Exception to Extend the Rate Filing Deadline Under 16 TAC §25.247*, Docket No. 52100 Order (July 30, 2021). ("Attachment SDH-25").

356, as well as three service life and curve combinations for Accounts 354, 356, and 362.

B. Acquisition Adjustment – Oncor proposes recovery of a $23.5 million acquisition premium, which I do not find to be supported by the record in this proceeding or previously authorized by the Commission. I recommend that the acquisition premium and the associated $851,000 annual amortization be removed from the revenue requirement.

C. Allowance For Funds Used During Construction ("AFUDC") – Oncor's capitalization of AFUDC in 2019 does not comply with the FERC account regulations and resulted in an overstatement of AFUDC by $4.9 million. I recommend that this amount of AFUDC be removed from rate base and the revenue requirement.

D. Excess Accumulated Deferred Income Taxes ("Excess ADIT") – Oncor improperly removed Excess ADIT of $1.1 million from its books following the sale of assets to AEP Texas in 2019. This amount of Excess ADIT does not appear to have been refunded to Oncor's customers and should not have been removed from its books.

E. Mobile Generation Capital Leases – Oncor proposes to include the present value of future lease payments for mobile generation units in rate base, currently valued at $3,146,147. I recommend the exclusion from rate base of all capital leases that have not been prepaid or otherwise represent invested capital. In addition, I recommend that costs includable in Oncor's proposed regulatory asset for incremental costs associated with mobile generation operations be clearly defined and exclude costs that are included in base rates.

F. Self-Insurance Reserve Losses – Oncor's self-insurance reserve regulatory asset includes several costs determined to be recoverable under existing third-party insurance policies or represent non-cash expense accruals of $9.2 million. I recommend that such amounts be removed from the regulatory asset and recovery in rates in this proceeding. In addition, I recommend that the regulatory asset for self-insurance reserve losses be amortized over 10 years, consistent with the provisions in the prior rate case. This will impact the revenue requirement by approximately $40.35 million.

Q. WHAT IS THE IMPACT OF YOUR RECOMMENDED ADJUSTMENTS ON ONCOR' S REVENUE REQUIREMENT?

A. My recommended adjustments result in a $78.86 million reduction to the revenue requirement as shown in Table 1 Below

TABLE 1

Issue	**Revenue Requirement Impact**
Depreciation	$36.6 million
Acquisition Premium	$0.851 million
AFUDC	$.571 million
Excess ADIT	$.211 million
Mobile Generation Capital Leases	$0.281 million
Self-Insurance Reserve Losses	$40.35 million
Total	**$78.6 million**

Q. IF YOU DO NOT ADDRESS AN ISSUE OR POSITION IN YOUR TESTIMONY, SHOULD THAT BE INTERPRETED AS SUPPORTING THE COMPANY'S POSITION ON THAT ISSUE?

A. No. Any cost or adjustment included in Oncor's Rate Filing Package ("RFP") that is not addressed in my testimony does not indicate my acquiescence to Oncor's proposed cost or adjustment.

IV. OVERVIEW OF APPLICATION

Q. PLEASE DISCUSS ONCOR'S APPLICATION TO CHANGE RATES.

A. Oncor's last base rate case was in Docket No. 46957, Application of Oncor Electric Delivery Company LLC for Authority to Change Rates. Docket 46957 had a test year ending December 31, 2016.

On May 13, 2022, Oncor filed current Application with the Commission, requesting authority to change rates. The test year in this proceeding is the year ending December 31, 2021. Oncor is seeking an increase over present revenues of approximately $251 million, or approximately a 4.5% increase over the adjusted test-year revenues of $5,811 million. Oncor's requested revenue requirement includes the following known and measurable adjustments: an increase in wholesale transmission service expenses of $135 million to reflect increases in the rates of third-party wholesale transmission service providers and growth in Oncor demand; an increase to operating and maintenance expenses ("O&M") of $47.2 million to reflect an updated self-insurance loss reserve provision proposed by Oncor and an increase in O&M of $75.1 million to address under-recovered property and liability losses; an increase of $16 million to labor-related O&M to address compensation

increases; and a reduction in pension O&M of $20.1 million, a reduction in other post-employment benefits ("OPEB") O&M of $21.1 million, a reduction of $7.9 million in amortization of under-recovered pension and OPEB costs.

Oncor is also seeking a proposed return on investment ("ROE") of 10.3%, a capital structure of 55% debt and 45% equity, and a proposed overall weighted cost of capital of 7.05% on a rate base of approximately $18,816 million. Oncor is requesting approval of a total adjusted revenue requirement of $5,710,691,370. The proposed effective date of Oncor's requested rate change in this proceeding is June 17, 2022.

V. FINDINGS AND RECOMMENDATIONS

A. Depreciation

Q. WHAT IS DEPRECIATION?

A. In 1958, the National Association of Regulatory Utility Commissioners ("NARUC") sanctioned the following definition of depreciation, which was incorporated into the FERC Uniform System of Accounts:

> "Depreciation," as applied to depreciable utility plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of elements, inadequacy, obsolescence, changes in the art, changes in demand, and requirements of public authorities.[3]

[3] Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to the Provisions of the Federal Power Act, 18 C.F.R. Part 101 (1993). ("Attachment SDH-2").

Another commonly cited definition of depreciation is that of the American Institute of Certified Public Accountants:

> "Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any) over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation. Depreciation for the year is the portion of the total charge under such a system that is allocated to the year. Although the allocation may properly take into account occurrences during the year, it is not intended to be a measurement of the effect of all such occurrences."[4]

In short, depreciation is the process of recovering the initial investment in tangible capital assets in a systematic fashion over the useful service life of the plant, recognizing that utility plant is typically a group of investments.

Q HOW DOES DEPRECIATION EXPENSE AFFECT A UTILITY COMPANY'S RATES?

A. Depreciation expense directly increases the Company's revenue requirement.

Q. CAN DEPRECIATION BE CALCULATED WITH ABSOLUTE PRECISION?

A. No, but to ensure that the analysis is as accurate as reasonably possible, it requires the knowledge and informed judgment of an expert trained in the field of utility depreciation. The judgment pertains to the estimation of the future surviving life of plant as indicated by past patterns of retirements, industry trends, and corporate investment plans.

Q. WHAT ARE THE BASIC PARAMETERS USED TO DEVELOP A DEPRECIATION RATE?

[4] *Accounting research and Terminology bulletins; Accounting terminology bulletins; Accounting research bulletins*, American Institute of Certified Public Accountants. Accounting Principles Board; American Institute of Certified Public Accountants. Committee on Accounting Procedure, (1961). ("Attachment SDH-3").

A. At its simplest level, the only parameter that is absolutely required is an estimate of the service life of the asset being retired. The reciprocal of that service life can be used as the depreciation rate.[5] Because most utility depreciation rates are applied to *groups* of assets with varying lives, however, virtually all utilities use "remaining life" depreciation. This "remaining life" procedure computes the depreciation rate by dividing the unrecovered net investment by the estimated remaining years of the asset's (or group of assets') service life. It is intended to ensure that any past under-accruals or over-accruals of depreciation are recovered during the remaining life of the asset.

The remaining life procedure requires an estimate of the dispersion of retirements around an average service life. In the electric utility industry, this dispersion is usually described in terms of "Iowa Curves," so named because they were developed at Iowa State University. These curves describe how closely the retirements are grouped around the average service life and whether they tend to occur more rapidly before, after, or coincident with the average service life.[6] I discuss Iowa curves in more detail in a later section of this testimony.

Q. PLEASE ILLUSTRATE HOW THE PARAMETERS YOU HAVE JUST DESCRIBED ARE USED TO DEVELOP DEPRECIATON RATES.

[5] In general, the reciprocal of a fraction simply interchanges the numerator and denominator of the fraction. Thus, the reciprocal of 5 is 1/5.

[6] Attachment SDH-3. For a complete discussion of Iowa Curves, see *Public Utility Depreciation Practices*, National Association of Regulatory Utility Commissioners, (Aug. 1996).

A. Beginning with a simple example, assume the existence of a single asset with a 20-year life.[7] Its depreciation rate is the reciprocal of 20:

$$1/20 = 5\% \text{ of the original cost depreciated per year}$$

Now, let us assume that the asset is expected to have a salvage value equivalent to 5 percent of its investment value. The depreciation rate declines:

$$\frac{1-.05}{20} = \frac{.95}{20} = 4.75\%$$

This is called a "whole life" rate because it is based on the whole life of 20 years. To develop the remaining life rate, we must identify some additional items of data: the original cost of the asset, the depreciation reserve (the amount of depreciation that has already been recovered), and the remaining life of the asset.

In this illustration, let us assume that the asset originally cost $1 million and that past depreciation charges have recovered $400,000. This means that we have yet to recover $600,000 in original cost less 5 percent positive salvage, or $50,000. The total amount yet to be recovered is thus $550,000. Let us further assume that the asset is 10 years old, leaving 10 years of remaining life. In remaining life depreciation, the unrecovered amount is divided by the remaining life:

$$\frac{\$550{,}000}{10 \text{ years}} = \$55{,}000 \text{ required annual accrual}$$

[7] This example is only to illustrate basic principles. As I explain in the next section, there are primarily *groups* of assets rather than a single asset, with each asset group assigned to an account. Thus, this example is not illustrative of how depreciation is actually calculated in current practice.

The depreciation rate is then calculated by dividing the annual amount to be recovered by the gross investment, in this case:

$55,000 / $1,000,000 = 5.5%

Service Life Discussion

Q. WHAT METHODOLOGIES WERE USED TO STUDY SERVICE LIVES IN THIS CASE?

A. Mr. Watson has used two distinct service life analysis methodologies in this case. One, broadly known as the "Actuarial Analysis Method," (also known as the retirement rate method) is used when retirement data in which both the activity year (the year in which the plant was retired) and the vintage year (the year in which the plant was placed into service) have been recorded. The other method is known as the "Simulated Plant Record" ("SPR") method, and it is generally used when the activity year for retirements is known, but the vintage years have not been recorded. Mr. Watson has provided an adequate description of the workings of both of these accounts in his depreciation study.[8] Mr. Watson has used both of these analysis methods in concert, and relies on them interchangeably—often giving one weight over the other. However, it is important to understand that these methodologies are not equivalent, and should not be afforded equal weight. The NARUC Depreciation Practices has the following to say on this subject:

> "Actuarial analysis requires information in greater detail than do other life analysis methods (e.g., turnover, simulation) and, as a result, may be impractical to implement for certain accounts (see Chapter VII). However, for accounts for which application of

[8] Direct Testimony of Dane Watson on behalf of Oncor Electric Delivery Company LLC, ("Oncor") Exhibit DAW-2 at 11-15. ("Attachment SDH-5").

actuarial analysis is practical, it is a powerful analytical tool and, therefore, is generally considered the preferred approach."

Accordingly, where the actuarial and SPR methodologies come into conflict, it is generally appropriate to credit the accuracy of the actuarial method. The mitigating consideration here is that because the actuarial method requires that vintage retirement records be kept, activity data is not necessarily available from the beginning of the plant record. However, Oncor has vintage retirement records as of 1990. The resulting activity bands, 1990-2021, are more than adequate to provide for a highly reliable actuarial analysis.

I will discuss each account that I have adjusted in detail below. However, in general, I have weighted the results of actuarial analysis over that of the SPR analysis. On the other hand, as will be discussed, I have not dismissed the SPR analysis, which has the benefit of containing a longer period of retirements, in its entirety.

Plant Service Life

Q. ARE YOU DISPUTING ANY OF THE METHODOLOGIES THAT THE COMPANY IS USING TO ARRIVE AT AVERAGE OR REMAINING LIVES?

A. Other than disputing the weight afforded to the "actuarial" and "SPR" methodologies, as discussed above, I am not disputing the methodologies utilized by Mr. Watson.

Q. ARE YOU DISPUTING ANY OF THE AVERAGE SERVICE LIVES PROPOSED BY MR. WATSON IN THIS CASE?

A. Yes. I am proposing to adjust three service lives proposed by Mr. Watson (Account 354-Transmission Towers and Fixtures, Account 356 – Transmission Overhead

Conductors, and Account 362 – Distribution Substations). I will discuss the adjustment to each account in detail below.

Service Life Discussion

Account 354 – Transmission Towers and Fixtures

Discussion: The currently approved average service life for this account is a 60-R3 life and curve combination. Mr. Watson has proposed increasing the average service life to 72-R2.5. However, the best-fitting life and curve for the full band of available data is for a 76-R2.5 life and curve.[9] Visual inspection of the curve confirms that the longer curve shape is a better fit through the higher ages of the curve. Mr. Watson's SPR analysis is unfortunately inconclusive, because no limits were placed on minimum censorship of the curve. However, the SPRs appear consistent with a somewhat longer service life R-shaped curve.[10] In consideration of all of these factors, I am proposing the 76-R2.5 life and curve combination, which is the best fit to the full band of actuarial analysis for this account.

Account 356 – Transmission Overhead Conductors

Discussion: The current average service life for this account is a 50-R2 life and curve combination. Mr. Watson is proposing a 50-S5 life and curve. Mr. Watson notes that Oncor's SME anticipates a shorter average service life for this account. Particular attention is paid to the specific statements regarding a greater focus on reconductoring in the future.[11] However, on a historical basis, these expectations are at odds with the actuarial analysis

[9] Direct Testimony of Dane Watson on behalf of Oncor, Watson Workpapers at 1. ("Attachment SDH-24").

[10] *Id.* at 2.

[11] Direct Testimony of Dane Watson on behalf of Oncor Electric Delivery Company LLC, ("Oncor") Exhibit DAW-2 at 5. ("Attachment SDH-5").

which consistently shows higher average service lives. The best fitting life and curve for the full band of actuarial analysis for this account is 75-R1.[12] The various SPR runs performed by Mr. Watson are consistent with Mr. Watson's proposed life and curve.[13] However, as discussed above, the SPR life analysis method is generally inferior to the actuarial method. In consideration of all of these factors, it is appropriate to somewhat discount the higher average service lives indicated by the actuarial analysis. However, I have not dismissed these results entirely, as Mr. Watson appears to have done based on his proposal. The most recent periods of actuarial analysis performed on rolling bands are consistent with a life in the range of 60 years.[14] I also think it is appropriate to credit the likelihood of increased retirements at higher ages, so I accept Mr. Watson's proposed S5 life and curve. In combination, I propose a 60-S5 life and curve combination

Account 362 – Distribution Substations

Discussion: The current average service life for this account is a 55-R1.5 life and curve combination. Mr. Watson is proposing to moderately increase the average service life of this account to 57 years, maintaining the R1.5 curve shape. Mr. Watson's discussion of this account indicates that this is in part due to Oncor's expectation that they expect certain components in this account to have a service life of 50 years. However, the best fit according to Mr. Watson's own actuarial analysis is a 67-L0.5 life and curve combination.[15] The SPR results on the full band of data show average service lives ranging

[12] Attachment SDH-24 at 3.

[13] *Id.* at 4.

[14] *Id.* at 5.

[15] *Id.* at 6.

from 63 years to 75 years with a consistent indication of lives with a relatively flat distribution.[16] Reviewing the entirety of both the actuarial and SPR analysis, a longer service life is indicated. However, I give partial weight to Oncor's retirement expectations going forward, as well as the general expectation that plant at higher ages will likely see increased retirements as their age increases. In combination of all of these factors, I am proposing a 63-R1 life and curve combination for this account.

Q. WHAT IS THE IMPACT OF YOUR AVERAGE SERVICE LIFE RECOMMENDATIONS ON THE COMPANY'S ANNUAL DEPRECIATION EXPENSE?

A. The impact of adjusting the average service life for these three accounts reduces the company's depreciation expense by $25.4 million.

Net Salvage Discussion

Q. PLEASE EXPLAIN THE ROLE OF NET SALVAGE IN ESTIMATING ANNUAL DEPRECIATION EXPENSE.

A. As explained in the quote above from the American Institute of Certified Public Accountants depreciation aims to "… distribute the cost or other basic value of tangible capital assets, less salvage (if any) over the estimated useful life of the unit[.]"[17] What this means is that the salvage value of the capital asset is to be included in the total amount to be recovered through depreciation expense.

Plant Value – Salvage Value = Amount to be depreciated

[16] *Id.* at 7.

[17] Attachment SDH-2.

Salvage value is further defined as the amount that company can expect to recoup from salvaged parts and materials after retirement (simply called "gross salvage"), minus the cost of removal of the retired plant ("cost of removal").

Gross Salvage – Cost of Removal = Net Salvage

While historically it was not unusual for the gross salvage to exceed cost of removal, resulting in positive net salvage, today it is significantly more common for cost of removal to greatly outweigh gross salvage, resulting in negative net salvage. Referring to the formula above, we can see that if the "Salvage Value" is negative, the future depreciable amount will be higher than the initial plant value. This is the typical state of utility depreciation today.

Q. DOES INCLUDING NET SALVAGE IN THE DEPRECIATION CALCULATION LEAD TO ANY PROBLEMS WITH ESTIMATING THE APPROPRIATE ANNUAL DEPRECIATION EXPENSE?

A. Yes. The fundamental challenge presented by the way that net salvage is included in depreciation is that it requires the future cost of removal and salvage value of current plant in service to be estimated. What this means is that in order to calculate depreciation expense, it is necessary to estimate future costs effectively over the average remaining life of the current plant in service. In the case of Oncor, that means that future net salvage is being estimated over *an average* of 38.22 years.[18] This is an unusual period over which to be attempting to estimate and charging consumers for a future expense.

[18] Attachment SDH-5. (Total of Unrecovered Investment column for Intangible (611,524,727), Transmission (14,720,725,372), Distribution Substations (2,701,037,722), Distribution (13,939,841,438), General Plant Depreciated (316,764,614) functions for a total depreciable Unrecovered Plant (32,289,893,614) divided by total of

Q. HOW DOES MR. WATSON ESTIMATE FUTURE NET SALVAGE INCLUDED IN HIS DEPRECIATION RATES?

A. Mr. Watson utilizes the most common methodology for estimating future net salvage.[19] This method utilizes a simple ratio, which is as follows:

$$\frac{\textit{Historical Net Salvage (\$)}}{\textit{Historical Retirements}} = \textit{Net Salvage Percentage}$$

This "Net Salvage Percentage" is then applied to Total Plant in Service:

*Total Plant In Service * Net Salvage Percentage = Future Net Salvage*

This Future Net Salvage is then included in the future amount to be depreciated as discussed above.

This explanation has been simplified for clarity. In reality, the analyst reviews many years of net salvage history, ideally fifteen years or more. This historical data analysis will produce a different net salvage percentage for each individual year, a total net salvage percentage for the entire period, and a variety of net salvage percentages for rolling averages over a variety of periods. The preponderance of data is viewed by the analyst and an appropriate net salvage percentage is selected. In my view, using a net salvage percentage that is based on the most recent five-year average of retirements and net salvage strikes a good balance between the stability of an averaged period, and relying on the most

Annual Accrual Amount column for Intangible (79,420,212), Transmission (324,561,451), Distribution Substations (55,631,763), Distribution (376, 623,772), and General (8,585,769) for total Annual Accrual Amount (844,832,966) for a weighted average remaining life of 38.2204473.).

[19] Direct Testimony of Dane A. Watson on behalf of Oncor, Office of Public Utility Counsel ("OPUC") Attachment SDH-6 at 26:1-4. ("Watson Testimony").

recent, relevant period. This also aligns with the period between the filing of depreciation studies for most companies, which should be three to five years.

Mr. Watson's method has some benefits, but also has some significant drawbacks. However, we are not disputing Mr. Watson's use of this method in this case, merely his application of this methodology to arrive at his proposed net salvage percentages.

Q. WHAT ISSUES DO YOU HAVE WITH MR. WATSON'S APPLICATION OF HIS NET SALVAGE METHOD IN THIS CASE?

A. The issue with the method outlined above is that it is extremely broad and imprecise. As such, it is frequently necessary to apply judgment to the results to arrive at a net salvage percentage that reflects the underlying data, but produces a result that also reflects other factors, such as the expectations of company staff, company plans, engineering estimates, the experience of other companies operating similar plant types, or as is sometimes the case, the interest of rate stability.

This is not unique to this net salvage methodology. It is necessary to apply judgment to the outcome of any depreciation analysis. However, the lack of absolute precision in the net salvage analysis means that judgment is a significantly larger component of most net salvage percentage recommendations than in service life recommendations. In this case, there are many accounts where I am not disputing Mr. Watson's net salvage recommendations where he has heavily relied on his professional judgment. In these cases, it was necessary for Mr. Watson to rely on judgment because the net salvage method did not produce a result that is in the range of reasonableness. For those accounts, I have found Mr. Watson's recommendations to be reasonable.

Q. DOES THIS MEAN THAT THE RESULTS OF NET SALVAGE ANALYSIS CAN BE DISREGARDED IN FAVOR OF ANALYST JUDGMENT?

A. No. While judgment is valuable, and necessary, there is a significant danger of providing net salvage recommendations that can appear arbitrary. This is unavoidable in some cases, where the net salvage percentages produced by the analysis method are too unreliable. In those cases, the analysist must rely on their accumulated knowledge and experience to arrive at a proper conclusion. However, where the net salvage methodology does produce a result that is within the range of reasonableness, it should still be afforded significant weight.

It is still possible that deviation from the net salvage analysis is appropriate, even where it produces a reasonable result. For instance, where the analyst is deviating from reasonable analytic results, it is crucial that judgment be supported by verifiable facts or principles. Otherwise, judgment can be used to produce results that arbitrarily result in a higher or lower depreciation expense.

Q. HAVE YOU IDENTIFIED ANY ACCOUNTS IN THIS CASE WHERE MR. WATSON HAS RELIED ON JUDGMENT WITHOUT SUFFICIENT SUPPORT?

A. Yes. There are three accounts:

Account 352 – Transmission Substation Structures and Improvements

Mr. Watson proposes a greater negative salvage percentage than what is in current rates, i.e., a change from (37%) to (50%). Mr. Watson explains that this is primarily driven by excluding the retirements in 2021 from the negative salvage computation. However, Mr. Watson does not explain why discounting the final year of retirements should influence the

analysis and his application of judgement is unsupported and contradicted by more current data. The net salvage percentages for the most recent five years is (45%), which appears to more closely align with future expectations. Accordingly, I recommend a (45%) net salvage percentage based on actual data, rather that the (50%) proposed by Mr. Watson based on unsupported judgement.

Account 355 – Transmission Poles and Fixtures

Mr. Watson is proposing to adjust the current negative net salvage percentage from (100%) to (75%). However, Mr. Watson does not explain or justify the reasoning for not adjusting the negative salvage percentage based on recent historical experience. Mr. Watson proposes "incrementally" moving to (75%).[20] There is no data indicating that the net salvage is likely to be more negative again in the future. Additionally, given that the five-year average net salvage percentage is (63.85%), it appears that Oncor has been over-collecting for net salvage up to this point, accruing a significant depreciation reserve. An incremental move to the appropriate net salvage percentage can only serve to continue the overcollection for net salvage at a somewhat slower rate. In the absence of a reason to believe this percentage is likely to increase in the future, there is no risk inherent in correcting down to the five-year average. For these reasons, I propose that Oncor use a net salvage percentage of (64%), which is the five-year average, rounded to the nearest digit.

[20] Attachment SDH-5 at 10.

Account 356 – Transmission Overhead Conductor

Mr. Watson is proposing to adjust the current negative salvage percentage from the current (70%) for Oncor and (50%) for Oncor NTU. These adjustments do not adjust the percentage to the five-year average (32.84%), which represents recent historical experience. Again, Mr. Watson proposes an incremental move from (70%) to (40%).[21] However, consistent with the discussion for Account 355 above, Oncor has been significantly over-collecting on net salvage for some time. That is, it has collected negative salvage at (70%) while its actual experience is based on the five-year average has been (33%). Accordingly, there is no risk to begin immediately correcting down to the five-year average of (33%) and reflect an estimate that closer aligns with future expectations.

Q. WHAT IS THE IMPACT OF YOUR NET SALVAGE ADJUSTMENTS ON THE COMPANY'S ANNUAL DEPRECIATION EXPENSE?

A. In total, these three net salvage percentages result in a decrease to the Company's depreciation expense of $12.3 million dollars.

Depreciation Summary

Q. WHAT IS THE IMPACT OF YOUR DEPRECIATION ADJUSTMENTS FOR BOTH AVERAGE SERVICE LIVES AND NET SALVAGE?

A. The total impact of all six adjustments (three net salvage adjustments and three service life adjustments) is a decrease to the Company's depreciation expense of $36,629,974. Note that this is $1 million *less than* the combined impact of the net salvage and service life adjustments when calculated independently. This is appropriate, because as remaining life

[21] Attachment SDH-5 at 11.

rates are calculated, the impact of the adjustment to service life is mitigated by the impact of the adjustment to net salvage for Account 356.

B. Acquisition Adjustment

Q. DOES ONCOR PROPOSE TO RECOVER AN ACQUISITION PREMIUM IN THIS PROCEEDING?

A. Yes. Oncor proposes to recover an acquisition premium of $23.5 million associated with an acquisition of utility plant assets by Sharyland Utilities in 2013 ("Sharyland transaction") from Southwestern Public Service Company ("SPS").[22] The Sharyland transaction was approved by the Commission in Docket No. 41430.[23] In that transaction, Sharyland Utilities recognized an acquisition premium of $29.3 million and began amortizing the acquisition premium over the expected remaining life of the assets. The acquisition premium was amortized below-the-line to Account 425, Miscellaneous Amortization.[24] Oncor then purchased the assets approved in Docket No. 41430 from Sharyland Utilities as a part of the InfraREIT Acquisition. Oncor represents that, as of the end of the test year, the unamortized acquisition premium was $23.5 million.

Q. HAS THE COMMISSION PREVIOUSLY APPROVED RATE RECOVERY OF THIS ACQUISITION PREMIUM?

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[22] Direct Testimony of W. Allen Ledbetter on behalf of Oncor. OPUC Attachment SDH-7 at 3-4. ("Ledbetter Testimony").

[23] *Joint Report and Application of Sharyland Utilities, L.P., Sharyland Distribution & Transmission Services, L.L.C., and Southwestern Public Service Company for Approval of Purchase and Sale of Facilities, for Regulatory Accounting Treatment of Gain on Sale, and for Transfer of Certificate Rights*, Docket No. 41430 Commission Order (Dec. 20, 2013). ("Attachment SDH-8").

[24] Oncor's Response to OPUC's Second Request for Information Question No. 2-08. ("Attachment SDH-9").

A. No. In Docket No. 41430, the Commission stated that the ratemaking treatment of the acquisition adjustment associated with the purchase of the facilities will not be determined in this proceeding but will be addressed in Sharyland's next rate proceeding.[25] This is consistent with the Commission's precedent of the recovery of acquisition premiums discussed by the Administrative Law Judge's Proposal for Decision in Docket No. 41430, discussing the Commission's ruling in Docket No. 8374.[26] The ALJ stated:

> "The Commission found that the sale of assets in Docket No. 8374 was in the public interest. The Commission went on to conclude, however, that the issue of whether the acquisition adjustment should be included in rate base was an issue that should properly be addressed in the utility's future base rate case. The Commission also clarified that a finding that the transaction is in the public interest does not equate to a finding that the acquisition adjustment will automatically be includable in rate base in the future base rate proceeding. According to Commission Staff, TIEC, and Pioneer, consistent with prior practice, the Commission should address Issue No. 3 in Sharyland's future base rate case when Sharyland seeks approval of the acquisition adjustment's inclusion in rate base."[27]

Since Sharyland did not have a rate proceeding prior to the sale of its assets to Oncor, the next rate proceeding for the acquisition premium to be addressed is this proceeding, filed by Oncor.

Q. DOES ONCOR VIEW THAT THE COMMISSION HAS ALREADY APPROVED THE RATE RECOVERY OF THIS ACQUISITION PREMIUM?

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[25] Attachment SDH-8 at 20.

[26] *Application of Electra Telephone Company, Inc. for the Transfer of a Certificate of Public Convenience and Necessity from Electra Telephone Company,* Docket No. 8374 (Aug. 1, 1990). ("Attachment SDH-10").

[27] *Joint Report and Application of Sharyland Utilities, L.P., Sharyland Distribution & Transmission Services, L.L.C., and Southwestern Public Service Company for Approval of Purchase and Sale of Facilities, for Regulatory Accounting Treatment of Gain on Sale, and for Transfer of Certificate Rights*, Docket No. 41430 Proposal for Decision at 3-4 (Dec. 20, 2013). ("Attachment SDH-11").

A. Yes. Oncor states the reasonableness of the Sharyland acquisition of the SPS assets that generated the $23.5 million acquisition adjustment has already been ruled upon by the Commission.[28] According to Oncor, the only issue involves the mechanism for regulatory recovery of the acquisition adjustment, as reflected in Conclusion of Law Number 14 of Docket No. 41430's Order, which provides that "(t)he ratemaking treatment of the acquisition adjustment associated with the purchase of the facilities will not be determined in this proceeding but will be addressed in Sharyland's next rate proceeding."[29]

As stated above, the Commission's practice is not to approve the rate recoveries of acquisition premiums in proceedings under PURA § 14.101(b). Such proceedings are to determine the whether the transaction is in the public interest, including a determination on the reasonableness of the purchase price. This determination under PURA § 14.101(b) however is not dispositive of any issue in subsequent rate proceedings before the Commission. In fact, Conclusion of Law 8a in the Commission order approving the Sharyland transaction states, "The determination that the value of the facilities is reasonable under PURA § 14.101(b) is not dispositive of any issue in subsequent rate proceedings before the Commission, including without limitation the applicability of PURA § 36.053."[30] As such, I therefore disagree with Oncor's conclusion that the acquisition adjustment has been approved by the Commission.

Q. HAS ONCOR SUFFICIENTLY DEMONSTRATED THAT THE ACQUISITION PREMIUM SHOULD BE RECOVERED IN THIS PROCEEDING?

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[28] Oncor's Response to OPUC's Third Request for Information Question No. 3-01. ("Attachment SDH-12").

[29] *Id.*

[30] Attachment SDH-8.

A. Oncor has not justified the recovery of the Sharyland acquisition premium in this proceeding beyond arguing that the Sharyland's purchase of the assets prior to the InfraREIT acquisition reflects prudent acquisition of used and useful assets at a price below alternative options then available to meet the utility's needs. Recovery of an acquisition premium should be based on a company's ability to demonstrate that clear, quantifiable, and substantial net benefits have been realized by ratepayers which would not have been realized had the transaction not occurred. This has not been demonstrated in this proceeding.

Q. WHAT IS YOUR RECOMMENDATION RELATED TO THE SHARYLAND ACQUISITION PREMIUM?

A. I recommend that the acquisition premium be excluded from Oncor's proposed revenue requirement. This includes the exclusion of the $23.5 million acquisition premium from rate base and recovery of about $851,000 for annual amortization.

Q. DO YOU RECOMMEND ANY ACCOUNTING CHANGES?

A. Yes. Oncor stated that the acquisition premium was previously amortized below-the-line to Account 425 since the acquisition date, and that it now proposes to amortize the cost above-the-line to Account 406, amortization of electric plant acquisition adjustments. I recommend that Oncor be required to continue amortizing the acquisition premium to Account 425, as required for acquisition premiums that are excluded from rate recovery.[31]

[31] Attachment SDH-2.

C. Allowance For Funds Used During Construction

Q. PLEASE DISCUSS ONCOR'S ACCOUNTING PROCEDURES FOR AFUDC.

A. Oncor provides its accounting procedures for determining the AFUDC rate and capitalizing AFUDC accruals in Exhibit WAL-6.[32] The Oncor AFUDC Procedures state that it follows the FERC requirements for capitalizing AFUDC for its regulated businesses.[33] According to these procedures, AFUDC rates are based on the capital structure of the Company as of the end of the prior fiscal year.[34] The AFUDC rate is calculated using estimates of the short-term debt balances and related cost applicable to construction work in progress ("CWIP") and the average balances of CWIP.[35] The balances for long-term debt, preferred stock, preferred securities, and common equity are the actual book balances as of the end of the prior fiscal year.[36] The cost rates for long-term debt, preferred stock, and preferred securities are the weighted average cost of such capital.[37] The cost rate for common equity is the rate that was granted in the most recent rate proceeding.[38] Oncor also explains that the AFUDC rate is monitored and calculated monthly until year-end using 13-month averages of short-term debt applicable to CWIP and CWIP balances (both calculated using actual balances as they occur plus outstanding estimates); and the weighted average cost

[32] Oncor Exhibit WAL-6, Oncor Principles, Policies and Procedures - Accounting, *50-02 Allowance for Funds Used During Construction (AFUDC)*. ("Attachment SDH-13").

[33] *Id.* at 1.

[34] *Id.*

[35] *Id.*

[36] *Id.*

[37] *Id.*

[38] *Id.*

of equity and long term debt.[39] After determining the maximum AFUDC accrual rate, Property Accounting calculates the percentage allocation between borrowed funds (Debt) and other funds (Equity).[40] Finally, Oncor's procedures include a year-end analysis to assess the amount of deviation between projected AFUDC rate for year-end and the rate applied during the year.[41] If the actual AFUDC rate projected for the end of the year is higher than the AFUDC rate applied during the year by 25 basis points or more, the rate is changed on a retroactive basis to the beginning of the year to reflect the new rate per the requirements of FERC Order Number 561. This retroactive adjustment usually occurs near the end of the year.[42]

Q. HOW DO ONCOR'S AFUDC ACCOUNTING PROCEDURES COMPLY WITH THE FERC ACCOUNTING REGULATIONS?

A. Oncor's accounting procedures for AFUDC contains certain deviations from the FERC's accounting regulations for AFUDC in 18 C.F.R. Part 101, Electric Plant Instruction No. 3(17).[43] The regulations are as follows:

> "The rates shall be determined annually. The balances for long-term debt, preferred stock and common equity shall be the actual book balances as of the end of the prior year. The cost rates for long-term debt and preferred stock shall be the weighted average cost determined in the manner indicated in § 35.13 of the Commission's Regulations Under the Federal Power Act. The cost rate for common equity shall be the rate granted common equity in the last rate proceeding before the ratemaking body having primary rate jurisdictions. If such cost rate is not available, the average rate

[39] *Id.*

[40] *Id.*

[41] *Id* at 2.

[42] *Id.*

[43] Attachment SDH-2.

> actually earned during the preceding three years shall be used. The short-term debt balances and related cost and the average balance for construction work in progress plus nuclear fuel in process of refinement, conversion, enrichment, and fabrication shall be estimated for the current year with appropriate adjustments as actual data becomes available."[44]

Of most significant note, Oncor's accounting procedures deviate from the FERC accounting regulations by computing AFUDC on a monthly basis. This deviation is not necessarily problematic as the FERC has approved accounting waiver requests for similar treatments. The FERC orders approving such waiver request have generally limited the approval to ensure the AFUDC accrued and capitalized under a monthly methodology does not exceed the maximum allowable under its regulations.[45]

Q. HOW DO ONCOR'S AFUDC ACCOUNTING PROCEDURES COMPLY WITH OTHER AUTHORITATIVE ACCOUNTING REQUIREMENTS FOR AFUDC FOR FERC OR ITS PREDECESSOR (FEDERAL POWER COMMISSION)?

A. Federal Power Commission ("FPC") Order No. 561 established the FERC accounting regulations on AFUDC.[46] The order and the related order on rehearing provide clarification and implementation guidance on AFUDC. As it pertains to the year-end adjustment, Order No. 561 states:

> "We are modifying the proposed rule to provide that the balances of long-term debt, preferred stock, and common equity for use in the

[44] *Id.*

[45] *Ameren Transmission Company of Illinois*, FERC Docket No. AC17-262-000, Delegated Order (Jan. 30, 2018). *See also*, *PNM Resources*, FERC Docket No. AC12-114-000, Delegated Order (Nov. 7, 2012.) ("Attachment SDH-14").

[46] *Amendments To Uniform System Of Accounts For Public Utilities And Licensees And For Natural Gas Companies (Classes A, B, C And D) To Provide For The Determination Of Rate For Computing The Allowance For Funds Used During Construction And Revisions Of Certain Schedule Pages Of FPC Reports*, 57 F.P.C. at 1-3. (1977). ("Attachment SDH-15").

> formula for the current year will be the balances in such accounts at the end of the prior year; the cost rates for long-term debt and preferred stock will be the effective weighted average cost of such capital. The average short-term debt balances and related cost and the average construction work in progress balance will be estimated for the current year. *We shall require, however, that public utilities and natural gas companies monitor their actual experience and adjust to actual at year-end if a significant deviation from the estimate should occur*. For this purpose we shall consider a significant deviation to exist if the gross AFUDC rate exceeds by more than one-quarter of a percentage point (25 basis points) the rate that is derived from the formula by use of actual 13 monthly balances of construction work in progress and the actual weighted average cost and balances for short-term debt outstanding during the year. [Emphasis added.]"[47]

The plain reading of Oncor's accounting procedure of its year-end analysis is closely aligned with the FERC requirements to determine if a significant deviation exists. In response to a request for information ("RFI"), Oncor provided its annual computations to identify any significant deviation for 2016 - 2021.[48] Based on my review, Oncor determined that a significant deviation occurred in 2019 in which the AFUDC rate used during the year was 91.6 basis points lower than the year-end AFUDC rate.[49] Accordingly, it appears that Oncor recorded additional AFUDC amounts of $4.9 million, which I believe was capitalized to construction projects in 2019 and are now included in Oncor's proposed revenue requirement in this proceeding. This AFUDC adjustment does not comply with the requirements of Order No. 561, because the order only requires an adjustment if the AFUDC rate used throughout the year based on estimates exceeds the rate determined

[47] *Id.* at 3.

[48] Oncor's Response to OPUC's Second Request for Information Question No. 2-03. ("Attachment SDH-16").

[49] Oncor's Response to OPUC's Second Request for Information Question No. 2-04. ("Attachment SDH-17").

based on the inclusion of year-end actuals for short-term debt and CWIP. That is, the provision for year-end adjustments should only be used to lower the AFUDC rate and related AFUDC capitalized. Accordingly, Oncor incorrectly applied its year-end analysis to increase capitalized AFUDC. Second, the year-end analysis under Order No. 561 should only adjust short-term debt and CWIP estimated balances with actuals and the balances of long-term debt and equity are to remain the same, i.e., prior year-end balances. However, the driver to the significant deviation was driven by changes to equity during 2019, rather than differences caused by actuals for short-term debt and CWIP. Accordingly, I do not believe that Oncor's year-end AFUDC adjustment was consistent with Order No. 561 or the FERC accounting regulations for AFUDC. I also note that Oncor has not received any orders from the Commission or FERC authorizing a waiver or modification to its AFUDC computation effective for 2016 through 2021.[50]

Q. WHAT IMPACT DOES ONCOR'S ACCOUNTING DISCREPANCY HAVE ON ITS CAPITALIZED AFUDC SINCE THE LAST RATE CASE?

A. I believe that Oncor's $4.9 million accounting discrepancy on AFUDC in 2019 resulted in an overstatement of CWIP in that year, which is now likely treated as utility plant in service. This overstatement now affects Oncor's revenue requirement by overstating utility plant included in rate base and overstating depreciation expense.

Q. WHAT ADJUSTMENT DO YOU RECOMMEND TO ONCOR'S REVENUE REQUIREMENT FOR THIS DESCREPENCY?

[50] Oncor's Response to OPUC's Second Request for Information Question No. 2-06. ("Attachment SDH-18,").

A. I recommend an adjustment to the revenue requirement of $571,347 to reflect the balance in rate base and annual depreciation expense.

D. Excess Accumulated Deferred Income Taxes

Q. PLEASE DISCUSS ONCOR'S TREATMENT FOR EXCESS ACCUMULATED DEFERRED INCOME TAXES ON THE SALE OF ASSETS.

A. In response to an RFI, Oncor states that due to the sale of certain assets to AEP Texas, Inc. in 2019, $1,116,261 of non-protected plant-related Excess ADIT was removed from Oncor's books and the amount of amortization was adjusted accordingly.[51] I interpret this statement to mean that upon the sale of assets, Oncor removed Excess ADIT from its books that it determined was generated by the assets sold. Oncor's statement does not verify whether the Excess ADIT amounts amortized were in fact refunded to customers.

Q. SHOULD EXCESS ADIT BALANCES BE REDUCED UPON THE SALE OF ASSETS?

A. Excess ADIT balances are regulatory liability balances that should only be reduced or amortized as such amounts are refunded to customers. In Docket No. 48325, the Commission approved a black-box settlement resulting in a reduction to Oncor's annual revenue requirement based on the effects of the Tax Cuts and Jobs Act of $75,042,855 for Excess ADIT.[52] In addition, Oncor agreed to return the unprotected Excess ADIT over a

[51] Oncor's Response to OPUC's Forth Request for Information Question No 4-04. ("Attachment SDH-19").

[52] *Application of Oncor Electric Delivery Company LLC for Authority to Decrease Rates Based on the Tax Cuts and Jobs Act of 2017*, Docket No. 48325 Commission Order (Apr. 4, 2019). ("Attachment SDH-20").

ten-year amortization period.[53] These provisions establish the framework for any amortization and reduction to the Excess ADIT liability, as it is connected to the amounts used in the actual revenue requirement. Any amortization of the Excess ADIT liability not provided for in the Commission-approved settlement on Oncor's books would not appear to result in any refunds to customers and appears to be an accounting only reduction to the liability. To my knowledge, the Excess ADIT amortized by Oncor associated with the sale of assets to AEP Texas was not a provision in the black-box settlement and not contemplated in the $75 million reduction to the revenue requirement agreed upon. Accordingly, I recommend that Oncor reverse the $1,116,261 of non-protected plant-related Excess ADIT that was removed from Oncor's books for accounting and ratemaking purposes.

E. Mobile Generation Capital Leases

Q. PLEASE DISCUSS ONCOR'S ACCOUNTING AND RATE TREATMENT FOR LEASES OF MOBILE GENERATION.

A. Oncor states that it leased multiple mobile generation assets to aid its ability to restore power after a widespread power outage event, as authorized by PURA § 39.918(b)(1).[54] Oncor also states that pursuant to US Generally Accepted Accounting Principles, the lease associated with these mobile generation assets is classified as an operating lease.[55] However, pursuant to the provisions in PURA § 39.918(j), Oncor explains that these assets

[53] *Id.* at 10.

[54] Attachment SDH-7 at 2.

[55] *Id.*

have been reclassified as financial leases in this rate proceeding to reflect the present value of future payments required under the lease in the Company's balance of invested capital (i.e., rate base) and the long-term debt component of Oncor's capitalization and weighted average cost of capital calculation.[56]

Q. PLEASE DISCUSS PURA § 39.918 (H)(1) AND (J).

A. PURA § 39.918 codifies regulations to provide for the rate treatment of utility facilities for power restoration after widespread power outages. Paragraph H(1) of this section states that the Commission shall permit:

> "a transmission and distribution utility that leases and operates facilities under Subsection (b)(1) to recover the *reasonable* and necessary costs of leasing and operating the facilities, including the present value of future payments required under the lease, using the rate of return on investment established in the commission's final order in the utility's most recent base rate proceeding."[57]

Paragraph J of this section states:

> "A transmission and distribution utility may *request* recovery of the *reasonable* and necessary costs of leasing or procuring, owning, and operating facilities under this section, including any deferred expenses, through a proceeding under Section 36.210 or in another ratemaking proceeding. A lease under Subsection (b)(1) must be treated as a capital lease or finance lease for ratemaking purposes."[58]

Q. DO YOU BELIEVE ONCOR'S PROPOSAL TO INCLUDE THE OPERATING LEASE IN RATE BASE IS CONSISTENT WITH THE INTENT OF PURA § 39.918?

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[56] *Id.*

[57] PURA § 39.918 (H)(1).

[58] PURA § 39.918 (J).

A. No. PURA § 39.918 provides that the costs of capital finance leases may be presented in a rate proceeding for rate recovery, but it does not guarantee rate recovery.[59] Also, the regulation qualifies the rate recovery of capital finance leases to those costs that are reasonable and necessary.[60] I believe the practical implementation of this provision is to allow rate base treatment for capital finance leases that have been prepaid. It is not reasonable to provide rate base treatment on the present value of future payments, which do not represent current or previously invested capital. In a situation where a utility enters into a leasing contract without prepayment, the utility has not invested any capital by which to earn a return on and the payments are not yet known and measurable to qualify as a post-test year adjustment. Allowing such a return cannot be considered reasonable. This position is also consistent with the Texas Administrative Code ("TAC"), which provides for a working capital allowance included in rate base, inclusive of reasonable prepayments for operating expenses and specified sources of invested capital.[61] It is important for the Commission to provide guidance on this issue because future investments in mobile generation are likely to be significant and the decision made here may serve as a precedent or baseline for future lease costs.

Q. WHAT IS YOUR RECOMMENDATION ON ONCOR'S PROPOSED RATE BASE TREATMENT OF MOBILE GENERATION LEASES?

A. I recommend that the capital lease costs be excluded from rate base and determined to be unreasonable for a return, to the extent the leases are not prepaid or represent actual

[59] *Id.*

[60] *Id.*

[61] 16 TAC §25.231(c)(2).

invested capital. This results in the exclusion of $3,146,147 from rate base for the net present value of the lease payments associated with the seven mobile generation units, as shown in Schedule II-B-1, Line No. 25.

Q. WHAT ADDITIONAL RECOMMENDATIONS DO YOU HAVE REGARDING ONCOR'S PROPOSAL FOR THE COSTS OF MOBILE GENERATION?

A. Oncor explains in response to Commission Staff RFI 10-7 that it expects the costs in its requested rates for mobile generation to recur on an annual basis for the original seven mobile generation units leased in 2021.[62] Oncor also states that it expects to incur incremental costs above the amounts in its requested rates because, to date, Oncor has leased an additional eight mobile generation units, for a total of 15 units.[63] Oncor explains that the amounts included in its request to change rates do not include costs to deploy and operate the mobile generation units in response to a widespread power outage.[64] Accordingly, Oncor seeks to defer for future rate recovery the incremental operating costs and the return, not otherwise recovered in a rate proceeding, associated with leasing or procurement, ownership, and operation of the mobile generation facilities.[65] Although I do not take issue with Oncor's regulatory asset request in general, I do not believe Oncor has sufficiently determined the scope and limitations of "incremental costs" subject to be deferred as a regulatory asset. For example, the cost of insurance is already covered in the

[62] Oncor's Response to Commission Staff's Tenth Request for Information Question No. 10-07. ("Attachment SDH-21").

[63] *Id.*

[64] *Id.*

[65] *Id.*

rates provided in this proceeding, unless it specifically issues a new insurance policy specifically for mobile generation. The cost of internal labor by Oncor employees should not be considered incremental costs because their salaries and benefits are currently reflected in the rates provided in this proceeding, unless it is required to increase staffing levels beyond those contemplated in this proceeding. Nevertheless, Oncor states in OPUC's RFI Question No. 3-17 that incremental cost includes several categories but does not demonstrate that its definition of incremental cost will be limited to costs that are not already incurred. That is, incremental costs should not include any project costs for the deployment of mobile generation in an event, where the technicians employed, for example, are existing Oncor staff. My recommendation is that the Commission does not accept Oncor's scope of incremental cost or that Oncor provides more clarity on what its incremental costs will be and how those costs will be distinguished from costs already included in this rate proceeding.

F. Self-Insurance Reserve

Q. PLEASE DISCUSS ONCOR'S RATE PROPOSAL FOR THE CURRENT COSTS OF ITS THE SELF-INSURANCE RESERVE.

A. Oncor explains that its rates should reflect a self-insurance reserve allowance of $122.2 million annually to meet the current costs associated with self-insured property and liability losses.[66] That is, Oncor's rate proposal would allow rate recovery of $122.2 million of new property and liability losses that may arise each year. Oncor's current rates reflect $75.0

[66] Direct Testimony of Ashley Thenmadathil on behalf of Oncor at 2-6. ("Attachment SDH-22").

million annually to cover the current losses covered by the self-insurance reserve.[67] Accordingly, Oncor's proposal in this proceeding increases the annual recoveries by $47.2 million annually, approximately a 61% increase.

Q. PLEASE DISCUSS ONCOR'S RATE PROPOSAL FOR PRIOR LOSSES OF ITS SELF-INSURANCE RESERVE.

A. Oncor explains that under the Settlement and Order in Docket No. 46957 it agreed to a ten-year recovery and amortization period for the $426.4 million under-recovered self-insured losses existing at December 31, 2016.[68] This resulted in an annual recovery of $42.6 million. Oncor states that the under-recovered balance has grown to about $588.5 million, reflecting $223.3 million of the December 31, 2016 balance previously reviewed costs—plus an additional $365.2 million in under-recovered property and liability losses as of December 31, 2021.[69] In addition, Oncor proposes to recover the December 31, 2021 self-insurance reserve regulatory asset balance of $588.5 million balance over a five-year amortization period in this proceeding.[70] The annual recovery under this proposal would be $117.7 million, or an increase of $75.1 million over the current $42.6 million level.

Q. WHAT RECOMMENDATIONS DO YOU HAVE ON ONCOR'S RATE PROPOSAL FOR ITS THE SELF-INSURANCE RESERVE?

A. Oncor's rate proposal would undo the ten-year amortization it agreed to in settlement in Docket No. 46957, which I do not think is appropriate. I recommend that the settlement

[67] *Id.* at 3.

[68] *Id.*

[69] *Id.*

[70] *Id.*

provision of the prior rate case remain intact. Accordingly, Oncor should continue recovering the remaining balance from the prior proceeding at an amount of $42.6 million annually. In addition, I recommend the current tier of self-insurance reserve losses be recovered over a ten-year recovery period, or $36.5 million annually. The combined tiers of self-insurance loss recoveries total $79.1 million and represents a proposed reduction in revenue requirement of $38.6 million annually. I believe maintaining the ten-year amortization period is appropriate to temper the rate impact of prior losses in rates. A ten-year amortization period is also supported by the fact that Oncor's proposal calls for a 61% increase to the current self-insurance costs, which may change the trending increases in self-insurance losses.

Q. PLEASE DISCUSS ONCOR'S TREATMENT OF WINTER STORM URI COSTS INCLUDED IN THE SELF-INSURANCE RESERVE.

A. In response to OPUC's RFI Question No. 3-08, Oncor identifies $507,066 of costs included in the self-insurance reserve as of December 31, 2021 that were subsequently recovered through its third-party insurance coverage.[71] Oncor states that the full $507,066 was credited to the insurance reserve regulatory asset when the proceeds were received in 2022.[72]

Q. HOW SHOULD ONCOR ADJUST ITS SELF-INSURANCE RESERVE REGULATORY ASSET FOR COSTS SUBJECT TO RECOVERY?

[71] Oncor's Response to OPUC's Third Request for Information Question No. 3-08(a). ("Attachment SDH-23").

[72] *Id.*

A. Oncor should exclude all costs included in the self-insurance reserve regulatory asset that are subject to cost recovery through existing insurance policies with third-party providers or any other rate provisions. This would include the $507,066 that was recovered through the insurance policy in 2022. This would also include any other cost that is eligible for recovery through third-party insurance coverage or otherwise reimbursable from another party. I do not think Oncor should wait to receive the cash insurance recovery to credit the regulatory asset. Rather, Oncor should pursue insurance claims for all eligible costs and exclude all such costs from the self-insurance regulatory asset as a matter of policy. Accordingly, Oncor should adjust the self-insurance regulatory asset to exclude the $507,066 and assess its regulatory asset to identify any other costs eligible for recovery through third-party insurance or otherwise reimbursable to be removed.

Q. PLEASE EXPLAIN ONCOR'S TREATMENT FOR ACCRUED EXPENSES INCLUDED IN THE SELF-INSURANCE RESERVE REGULATORY ASSET.

A. Accrued expenses recorded in the self-insurance reserve regulatory asset serve to increase the regulatory asset balance by the amount of estimated future costs. In response to OPUC's RFI Question No. 3-08, Oncor explains that it has expense accruals for property losses and liability claims totaling $8,728,590 included in the self-insurance reserve regulatory asset as of the end of the test year.[73] I believe these amounts do not represent actual cash payments made by Oncor and should be removed from the regulatory asset.

[73] *Id.* at Question No. 3-08(b).

Q. HOW SHOULD ONCOR ADJUST ITS SELF-INSURANCE RESERVE REGULATORY ASSET FOR INSURANCE RECOVERIES AND ACCRUED EXPENSES?

A. Oncor should exclude costs from the regulatory asset for cost recoveries that have not been paid. I do not think it is appropriate for Oncor to earn a return on amounts that do not represent current or previously invested capital. Accordingly, accrued expenses such as the insurance recoveries totaling $507,066 and property loss and liability claim accruals totaling $8,728,590 should be excluded from the regulatory asset. This will result in a reduction to the revenue requirement of $1.748 million.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, at this time.

ATTACHMENTS
AND
WORKPAPERS

GDS Associates, Inc
ENGINEERS & CONSULTANTS

Steven D. Hunt, CPA

Managing Director

EDUCATION

- Bachelor of Science in Business, Major: Accounting, Virginia Tech (Blacksburg, VA)
- Master of Accounting and Information Systems, Virginia Tech (Blacksburg, VA)

PROFESSIONAL CERTIFICATIONS AND MEMBERSHIPS

- Certified Public Accountant: Washington, DC Certificate No. CPA901827
- Energy Bar Association
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PROFESSIONAL EXPERIENCE

Mr. Hunt is the former Chief Accountant and Director of the Division of Audits and Accounting at the Federal Energy Regulatory Commission (FERC) with 19 years of experience on FERC matters. As the Chief Accountant, Mr. Hunt was the director of FERC's regulatory accounting, financial reporting, and financial and operational audit programs. During his career at FERC Mr. Hunt provided expert advice on all accounting matters before FERC in rate proceedings, merger applications, requests for declaratory orders, policy statements, rulemakings, accounting guidance orders, pipeline certificate applications, and accounting filings. Mr. Hunt has also actively led FERC audits covering compliance topics associated with: transmission formula rates; merger hold harmless commitments; transmission owner and ISO/RTO OATT; Standards of Conduct; FERC Uniform System of Accounts for electric utilities, centralized service companies, natural gas companies, and oil companies; and Form Nos. 1, 2, 6, 60, 3-Q, and EQR; and electric reliability. Mr. Hunt's experience combines FERC electric and natural gas enforcement, ratemaking concepts and precedent, utility operations, wholesale customer concerns, and financial accounting and income tax matters to identify and resolve macro and micro regulatory issues.

- **GDS Associates, Inc., Orlando Office *(August 2020 – Present)***
  Managing Director

  Technical accounting and rate design expert and project manager for electric and natural gas matters in GDS' Rates and Regulatory Division. Leverages his 18 years of FERC experience to help clients identify regulatory compliance issues and strategically navigate the resolution of those issues.

- ***Federal Energy Regulatory Commission, Washington, DC (June 2002 – August 2020)***

  Chief Accountant & Director, Office of Enforcement - Division of Audits & Accounting (3 years)

  FERC's principal audit, accounting, and financial reporting authority for electric, natural gas, and oil regulatory programs, which supported FERC ratemaking and regulatory actions and oversight responsibilities.

  Deputy Chief Accountant, Office of Enforcement - Division of Audits & Accounting (4 years)

  Principal advisor to FERC Chief Accountant communicating advanced audit and accounting strategies and leading the operation, administration, and technical determinations for all audit and accounting projects.

Regulatory Accounting Branch Manager, Office of Enforcement - Division of Audits & Accounting (3 years)

Built a collaborative team of nine high-performing accountants organized to provide the Commission with technical accounting expertise on elaborate ratemaking, energy market, and auditing projects. Steered progression of accounting rulemaking projects and boosted internal and external collaborations.

Senior Accountant, Office of Enforcement - Division of Audits & Accounting (8 years)

Provided innovative industry guidance for highly complex and unique accounting issues ensuring compliance with FERC rule and policies.

Regulatory Experience

GDS Regulatory Experience

- Vermont Public Utility Commission – Case No. 21-0898-TF, Application of Vermont Gas Systems, Inc. for a change in rates and use of the System Expansion and Reliability Fund. GDS worked as expert witnesses on behalf of the Vermont Department of Public Service (Department). Mr. Hunt led the provision of expert regulatory services to the Department in the areas of accounting standards and practices for natural gas utilities, standards of prudency and cost recoverability, and FERC approved cost-of-service methodologies including, revenue requirements, taxation, operations and maintenance costs, affiliate transactions, cost allocations, and depreciation. Deliverables provided under Mr. Hunt's leadership included development of discovery questions, initial and surrebuttal written testimony, response to discovery on testimony, oral testimony before the Vermont Public Utility Commission, and technical assistance for initial and reply briefs. (2021)
- Texas Public Utility Commission – Docket No. 51445, Application of Southwestern Electric Power Company for Authority to Change Rates. GDS worked on behalf of East Texas Electric Cooperatives, Inc. and Northeast Texas Electric Cooperative, Inc. to review and analyze certain components of the cost-of-service rate filing. Mr. Hunt provided expert testimony, attended the hearing, and stood for cross examination in the case. (2021)
- Federal Energy Regulatory Commission – Docket No. EL22-7-000, Virginia Municipal Electric Association v. Virginia Electric and Power Co. d/b/a Dominion Virginia Power. Mr. Hunt provided expert testimony on the proper accounting for electric utility asset impairments under the FERC financial accounting and reporting regulations in support of the complainant. (2021)
- Vermont Public Utility Commission – Case No. 22-0175-INV, Tariff filing of Green Mountain Power requesting a 2.34% increase in base rates effective on bills rendered on or after October 1, 2022. GDS worked as expert witnesses on behalf of the Vermont Department of Public Service (Department). Mr. Hunt led the

provision of expert regulatory services to the Department in the areas of accounting standards and practices for electric distribution utilities, standards of prudency and cost recoverability, and FERC approved cost-of-service methodologies including, revenue requirements, taxation, operations and maintenance costs, affiliate transactions, cost allocations, and depreciation. Deliverables provided under Mr. Hunt's leadership included development of discovery questions, initial and surrebuttal written testimony, response to discovery on testimony, and oral testimony before the Vermont Public Utility Commission. (2022)

FERC Regulatory Experience

- Led the development of FERC accounting policies and precedents on numerous topics, including depreciation, utility plant capitalization policies, regulatory assets and liabilities, construction work in progress in rate base, wholesale fuel adjustment clause, vegetation management, asset retirement obligations, and natural gas pipeline accounting matters.
- Directed the development of audit strategies for financial, cost-of-service rate, and operational audits covering wholesale production and transmission formula rates, FERC accounting and financial reporting requirements, Open Access Transmission Tariffs (OATT) by public utilities, OATT administration by RTO/ISOs, Standards of Conduct, and Open Access Same-Time Information System reporting.
- Issued four Accounting Guidance Letter Orders as Chief Accountant.
- Provided oversight to FERC ratemaking and accounting orders supporting the Tax Cuts and Jobs Act of 2017.
- Expert knowledge of FERC and Chief Accountant decisions on AFUDC, including modifications to Accounting Release AR-5.
- Expert knowledge of FERC orders establishing transmission incentive under section 219 of the Federal Power Act (FPA) and subsequent orders modifying its incentive policy.
- Expert knowledge of FPA section 203 orders and the application of its merger policies with respect to hold harmless commitments.
- Expert knowledge of FERC Order No. 784 establishing accounting and financial reporting for energy storage assets.
- Expert knowledge and co-author of FERC accounting, financial reporting, and cost allocation requirements for centralized service companies.
- Provided senior leadership to FERC income tax allowance ratemaking and accounting policies.
- Advisor in the FERC Office of Enforcement on certain enforcement actions.
- For a more comprehensive listing of FERC accounting and rate orders and audit reports Mr. Hunt materially participated in, see Table 1 and Table 2 below.

TABLE 1 - SAMPLE OF ACCOUNTING AND RATE ORDERS LED

Docket No.	Description	Year	Signature or Personal Reference[1]
AI05-1-000	Order on Accounting for Pipeline Assessment Costs	2005	No
AC-6-1-000	Capitalization of Mitigation Payments and Contributions Related to Pipeline Construction Projects	2006	No
AC06-18-000	Accounting for Hydrostatic Spike Testing	2006	No
AI11-1-000	Revision to Accounting Release No. 5, Capitalization of Allowance for Funds Used During Construction	2011	No
AI18-1-000	Accounting and Financial Reporting for Pensions and Post-retirement Benefits other than Pensions	2017	No
AI19-1-000	Accounting and Financial Reporting for Leases	2018	Yes
RM18-11-000	Interstate and Intrastate Natural Gas Pipelines; Rate Changes Relating to Federal Income Tax Rate	2018	No
PL17-1-000	Policy for Recovery of Income Taxes for MLPs	2018	No
PL19-2-000	Policy Statement on Accounting and Ratemaking Treatment of Accumulated Deferred Income Taxes and Treatment Following the Sale or Retirement of an Asset	2018	No
AI20-1-000	Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract	2019	Yes
AI20-2-000	Accounting for Cumulative-Effect Adjustments to Retained Earnings Related to the Implementation of FASB's Accounting Standard on Credit Losses	2019	Yes
AI20-3-000	Accounting for Pipeline Testing Costs Incurred to Comply with New Federal Safety Standards	2020	Yes
AC20-127-000	AFUDC Accounting 12-Month Waiver – COVID-19	2020	No

[1] Signature or Personal Reference, response "Yes", means that the FERC order was either issued under Mr. Hunt's delegated authority as Chief Accountant or his name is mentioned in the order as the point of contact. For these public orders, Mr. Hunt could be viewed as having established technical positions on the accounting topics discussed therein. Where the response is "No", Mr. Hunt was either the lead accounting analyst (pre-2010) or materially involved as a reviewing official on an order that was issued by the FERC commissioners or the prior Chief Accountant (post-2010).

TABLE 2 - SAMPLE OF AUDITS DIRECTED

Docket No.	Description	Year	Signature or Personal Reference
FA14-10-000	Kinder Morgan Financial Audit of El Paso Merger	2015	Yes
FA15-10-000	Entergy Gulf States Louisiana Audit	2018	Yes
FA15-11-000	Entergy Arkansas Audit	2018	Yes
FA16-1-000	American Transmission Company Audit	2018	Yes
PA16-2-000	Northern Natural Gas Company Audit	2019	Yes
PA16-4-000	Trunkline Gas Company Audit	2018	Yes
FA16-2-000	National Grid USA Audit	2019	Yes
FA16-3-000	Black Hills Power Audit	2018	Yes
FA16-5-000	Explorer Pipeline Audit	2018	Yes
FA16-6-000	Plains Pipeline Audit	2018	Yes
FA16-7-000	Marathon Pipeline Audit	2018	Yes
FA17-2-000	Ohio Power Company Audit	2019	Yes
FA17-4-000	Xcel Energy Audit	2019	Yes
FA17-5-000	Northern States Power	2019	Yes
FA17-6-000	Equitrans Audit	2018	Yes
PA18-2-000	Avista Corporation	2019	Yes
PA18-3-000	Exelon Corporation Audit	2019	Yes
FA18-1-000	ONEOK NGL Pipeline Audit	2020	Yes
FA18-2-000	Transcontinental Gas Pipe Line Audit	2019	Yes
FA18-3-000	Cleco Power Audit	2019	Yes
FA19-6-000	National Fuel Gas Audit	2020	Yes
FA19-7-000	Michigan Electric Transmission Audit	2020	Yes

Exhibit SDH-2 – FERC Accounting Regulations Excerpts

Source: https://www.ecfr.gov/current/title-18/part-101

PART 101 - UNIFORM SYSTEM OF ACCOUNTS PRESCRIBED FOR PUBLIC UTILITIES AND LICENSEES SUBJECT TO THE PROVISIONS OF THE FEDERAL POWER ACT

Definition No. 12 - Depreciation

12. *Depreciation,* as applied to depreciable electric plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities.

Account 114 - Electric Plant Acquisition Adjustments

114 Electric plant acquisition adjustments.

A. This account shall include the difference between (1) the cost to the accounting utility of electric plant acquired as an operating unit or system by purchase, merger, consolidation, liquidation, or otherwise, and (2) the original cost, estimated, if not known, of such property, less the amount or amounts credited by the accounting utility at the time of acquisition to accumulated provisions for depreciation and amortization and contributions in aid of construction with respect to such property.

B. With respect to acquisitions after the effective date of this system of accounts, this account shall be subdivided so as to show the amounts included herein for each property acquisition and to electric plant in service, electric plant held for future use, and electric plant leased to others. (See electric plant instruction 5.)

C. Debit amounts recorded in this account related to plant and land acquisition may be amortized to account 425, Miscellaneous Amortization, over a period not longer than the estimated remaining life of the properties to which such amounts relate. Amounts related to the acquisition of land only may be amortized to account 425 over a period of not more than 15 years. Should a utility wish to account for debit amounts in this account in any other manner, it shall petition the Commission for authority to do so. Credit amounts recorded in this account shall be accounted for as directed by the Commission.

Account 425 – Miscellaneous Amortization

425 Miscellaneous amortization.

This account shall include amortization charges not includible in other accounts which are properly deductible in determining the income of the utility before interest charges. Charges includible herein, if significant in amount, must be in accordance with an orderly and systematic amortization program.

Items

1. Amortization of utility plant acquisition adjustments, or of intangibles included in utility plant in service when not authorized to be included in utility operating expenses by the Commission.

2. Other miscellaneous amortization charges allowed to be included in this account by the Commission.

Electric Plant Instruction No. 3 – Components of Construction Cost

3. *Components of construction cost.*

A. For Major utilities, the cost of construction properly includible in the electric plant accounts shall include, where applicable, the direct and overhead cost as listed and defined hereunder:

(1) *Contract work* includes amounts paid for work performed under contract by other companies, firms, or individuals, costs incident to the award of such contracts, and the inspection of such work.

(2) *Labor* includes the pay and expenses of employees of the utility engaged on construction work, and related workmen's compensation insurance, payroll taxes and similar items of expense. It does not include the pay and expenses of employees which are distributed to construction through clearing accounts nor the pay and expenses included in other items hereunder.

(3) *Materials and supplies* includes the purchase price at the point of free delivery plus customs duties, excise taxes, the cost of inspection, loading and transportation, the related stores expenses, and the cost of fabricated materials from the utility's shop. In determining the cost of materials and supplies used for construction, proper allowance shall be made for unused materials and supplies, for materials recovered from temporary structures used in performing the work involved, and for discounts allowed and realized in the purchase of materials and supplies.

Note:

The cost of individual items of equipment of small value (for example, $500 or less) or of short life, including small portable tools and implements, shall not be charged to utility plant accounts unless the correctness of the accounting therefor is verified by current inventories. The cost shall be charged to the appropriate operating expense or clearing accounts, according to the use of such items, or, if such items are consumed directly in construction work, the cost shall be included as part of the cost of the construction

(4) *Transportation* includes the cost of transporting employees, materials and supplies, tools, purchased equipment, and other work equipment (when not under own power) to and from points of construction. It includes amounts paid to others as well as the cost of operating the utility's own transportation equipment. (See item 5 following.)

(5) *Special machine service* includes the cost of labor (optional), materials and supplies, depreciation, and other expenses incurred in the maintenance, operation and use of special machines, such as steam shovels, pile drivers, derricks, ditchers, scrapers, material unloaders, and other labor saving machines; also expenditures for rental, maintenance and operation of machines of others. It does not include the cost of small tools and other individual items of small value or short life which are included in the cost of materials and supplies. (See item 3, above.)

When a particular construction job requires the use for an extended period of time of special machines, transportation or other equipment, the net book cost thereof, less the appraised or salvage value at time of release from the job, shall be included in the cost of construction.

(6) *Shop service* includes the proportion of the expense of the utility's shop department assignable to construction work except that the cost of fabricated materials from the utility's shop shall be included in *materials and supplies.*

(7) *Protection* includes the cost of protecting the utility's property from fire or other casualties and the cost of preventing damages to others, or to the property of others, including payments for discovery or extinguishment of fires, cost of apprehending and prosecuting incendiaries, witness fees in relation thereto, amounts paid to municipalities and others for fire protection, and other analogous items of expenditures in connection with construction work.

(8) *Injuries and damages* includes expenditures or losses in connection with construction work on account of injuries to persons and damages to the property of others; also the cost of investigation of and defense against actions for such injuries and damages. Insurance recovered or recoverable on account of compensation paid for injuries to persons incident to construction shall be credited to the account or accounts to which such compensation is charged Insurance recovered or recoverable on account of property damages incident to construction shall be credited to the account or accounts charged with the cost of the damages.

(9) *Privileges and permits* includes payments for and expenses incurred in securing temporary privileges, permits or rights in connection with construction work, such as for the use of private or public property, streets, or highways, but it does not include rents, or amounts chargeable as franchises and consents for which see account 302, Franchises and Consents.

(10) *Rents* includes amounts paid for the use of construction quarters and office space occupied by construction forces and amounts properly includible in construction costs for such facilities jointly used.

(11) *Engineering and supervision* includes the portion of the pay and expenses of engineers, surveyors, draftsmen, inspectors, superintendents and their assistants applicable to construction work.

(12) *General administration capitalized* includes the portion of the pay and expenses of the general officers and administrative and general expenses applicable to construction work.

(13) *Engineering services* includes amounts paid to other companies, firms, or individuals engaged by the utility to plan, design, prepare estimates, supervise, inspect, or give general advice and assistance in connection with construction work.

(14) *Insurance* includes premiums paid or amounts provided or reserved as self-insurance for the protection against loss and damages in connection with construction, by fire or other casualty injuries to or death of persons other than employees, damages to property of others, defalcation of employees and agents, and the nonperformance of contractual obligations of others. It does

not include workmen's compensation or similar insurance on employees included as *labor* in item 2, above.

(15) *Law expenditures* includes the general law expenditures incurred in connection with construction and the court and legal costs directly related thereto, other than law expenses included in protection, item 7, and in injuries and damages, item 8.

(16) *Taxes* includes taxes on physical property (including land) during the period of construction and other taxes properly includible in construction costs before the facilities become available for service.

(17) *Allowance for funds used during construction* (Major and Nonmajor Utilities) includes the net cost for the period of construction of borrowed funds used for construction purposes and a reasonable rate on other funds when so used, not to exceed, without prior approval of the Commission, allowances computed in accordance with the formula prescribed in paragraph (a) of this subparagraph. No allowance for funds used during construction charges shall be included in these accounts upon expenditures for construction projects which have been abandoned.

(a) The formula and elements for the computation of the allowance for funds used during construction shall be:

$A_i = s(S/W) + d(D/D + P + C)(1-S/W)$

$A_e = [1-S/W][p(P/D+P+C)+c(C/D+P+C)]$

A_i = Gross allowance for borrowed funds used during construction rate.

A_e = Allowance for other funds used during construction rate.

S = Average short-term debt.

s = Short-term debt interest rate.

D = Long-term debt.

d = Long-term debt interest rate.

P = Preferred stock.

p = Preferred stock cost rate.

C = Common equity.

c = Common equity cost rate.

W = Average balance in construction work in progress plus nuclear fuel in process of refinement, conversion, enrichment and fabrication, less asset retirement costs (See General Instruction 25) related to plant under construction.

(b) The rates shall be determined annually. The balances for long-term debt, preferred stock and common equity shall be the actual book balances as of the end of the prior year. The cost rates for long-term debt and preferred stock shall be the weighted average cost determined in the manner indicated in § 35.13 of the Commission's Regulations Under the Federal Power Act. The cost rate for common equity shall be the rate granted common equity in the last rate proceeding before the ratemaking body having primary rate jurisdictions. If such cost rate is not available, the average rate actually earned during the preceding three years shall be used. The short-term debt balances and related cost and the average balance for construction work in progress plus nuclear fuel in process of refinement, conversion, enrichment, and fabrication shall be estimated for the current year with appropriate adjustments as actual data becomes available.

Note:

When a part only of a plant or project is placed in operation or is completed and ready for service but the construction work as a whole is incomplete, that part of the cost of the property placed in operation or ready for service, shall be treated as *Electric Plant in Service* and allowance for funds used during construction thereon as a charge to construction shall cease. Allowance for funds used during construction on that part of the cost of the plant which is incomplete may be continued as a charge to construction until such time as it is placed in operation or is ready for service, except as limited in item 17, above.

1961

Accounting research and Terminology bulletins; Accounting terminology bulletins; Accounting research bulletins

American Institute of Certified Public Accountants. Accounting Principles Board; American Institute of Certified Public Accountants. Committee on Accounting Procedure

to the length of useful life, but the annual charge remains an allocation to the year of a proportionate part of a total cost or loss estimated with reference to a longer period.

55. Obviously, the term *depreciation* as here contemplated has a meaning different from that given it in the engineering field. The broad distinction between the senses in which the word is used in the two professions is that the accounting concept is one of systematic amortization of cost (or other appropriate basis) over the period of useful life, while the engineering approach is one of evaluating present usefulness.

56. After long consideration the committee on terminology formulated the following definition and comments:

> *Depreciation accounting* is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation. *Depreciation for the year* is the portion of the total charge under such a system that is allocated to the year. Although the allocation may properly take into account occurrences during the year, it is not intended to be a measurement of the effect of all such occurrences.

NOTE. This method of accounting may be contrasted with such systems as the replacement, the retirement, the retirement reserve, and the appraisal methods of recognizing the fact that the life of certain fixed assets is limited.

The words *depreciate* and *depreciation* are used in various ways in connection with depreciation accounting. The verb is used in a transitive as well as in an intransitive sense (cf., the use of accrue in accrual accounting). The noun is used to describe not only the process but also a charge resulting from the process or the accumulated balance of such charges; it is also used to describe the exhaustion of life which gives rise to the method of accounting.

In all these uses, the meaning of the word is sharply distinguished from the sense of "fall in value" in which the word is employed in common usage and in respect to some assets (e.g., marketable securities) in accounting.

APPENDIX A

Part 3

THE IOWA CURVES

The Iowa curves were developed empirically to represent the life characteristics of most industrial and utility property. The development of the Iowa curves may be traced to the data assembly effort of Professor Edwin Kurtz in 1916. Kurtz was later joined by Robley Winfrey, and in 1931 they issued *Bulletin 103, Life Characteristics of Physical Property,* at Iowa State University. In this report, 65 retirement frequency curves calculated for industrial and utility property were generalized into 13 curve types. Analysis of 111 more curves resulted in the addition of five curve types.

The resulting 18 Pearsonian type curves were originally published in *Bulletin 125, Statistical Analyses of Industrial Property Retirements,* in 1935. The curves were classified according to the location and magnitude of the mode, or highest point, of the retirement frequency curve. The curves were placed into **L**, **S**, and **R** families depending upon whether the mode was located *left* of, *symmetrical* to, or *right* of the curve's average life (see Figures 1, 2, and 3).

The curves in each family were then ordered according to the magnitude of the mode of the retirement frequency curve from low mode (e.g., **L0**) to high mode (e.g., **L5**) (see Figure 1). For these families, the mode and retirement dispersion are inversely related, i.e., the higher the mode, the less the dispersion, or standard deviation. For the **L** and **R** families, it can be seen that the modal age approaches the average life as the mode increases.

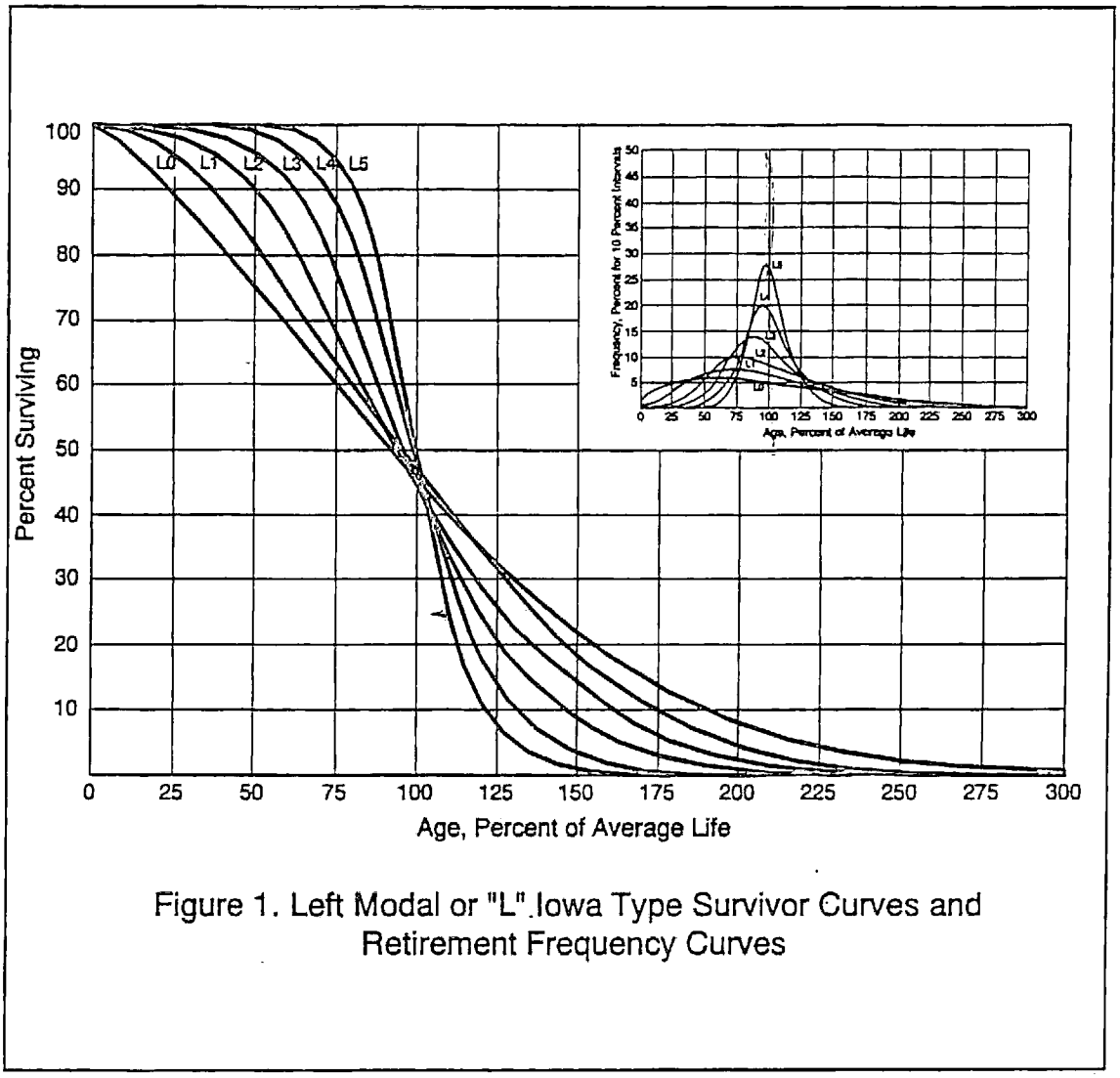

Figure 1. Left Modal or "L" Iowa Type Survivor Curves and Retirement Frequency Curves

Source: Plotted by Gannett Fleming Valuation and Rate Consultants, Inc.

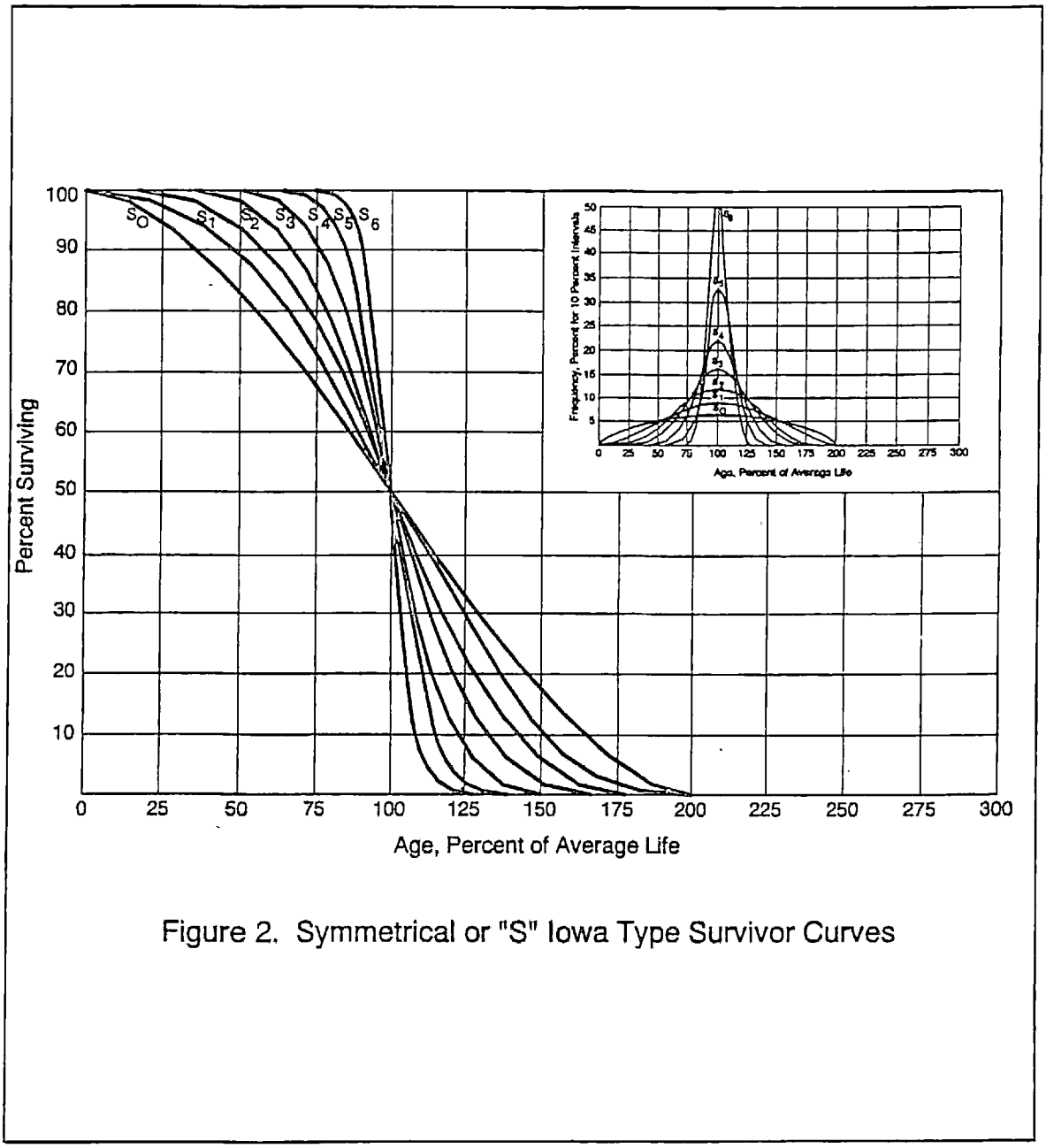

Figure 2. Symmetrical or "S" Iowa Type Survivor Curves

Source: Gannett Fleming.

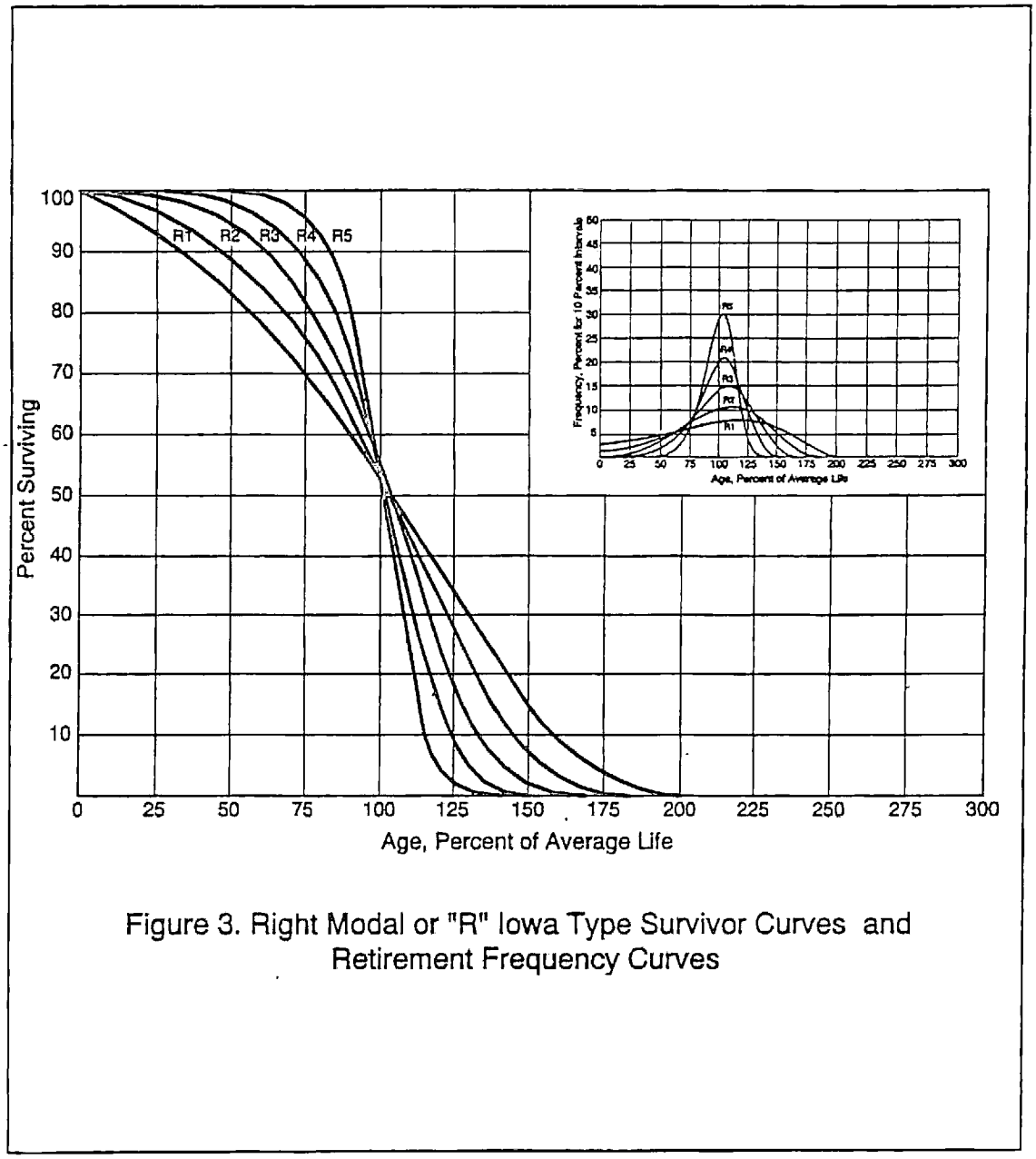

Figure 3. Right Modal or "R" Iowa Type Survivor Curves and Retirement Frequency Curves

Source: Gannett Fleming.

The revised edition of *Bulletin 125,* published in 1967, contains four additional curves that were developed by Couch for his Masters of Science at Iowa State. These curves were termed the O curves because their modal age is at the origin (see Figure 4). For this curve family, the mode and dispersion are directly related, i.e., the higher the mode, the greater the dispersion.

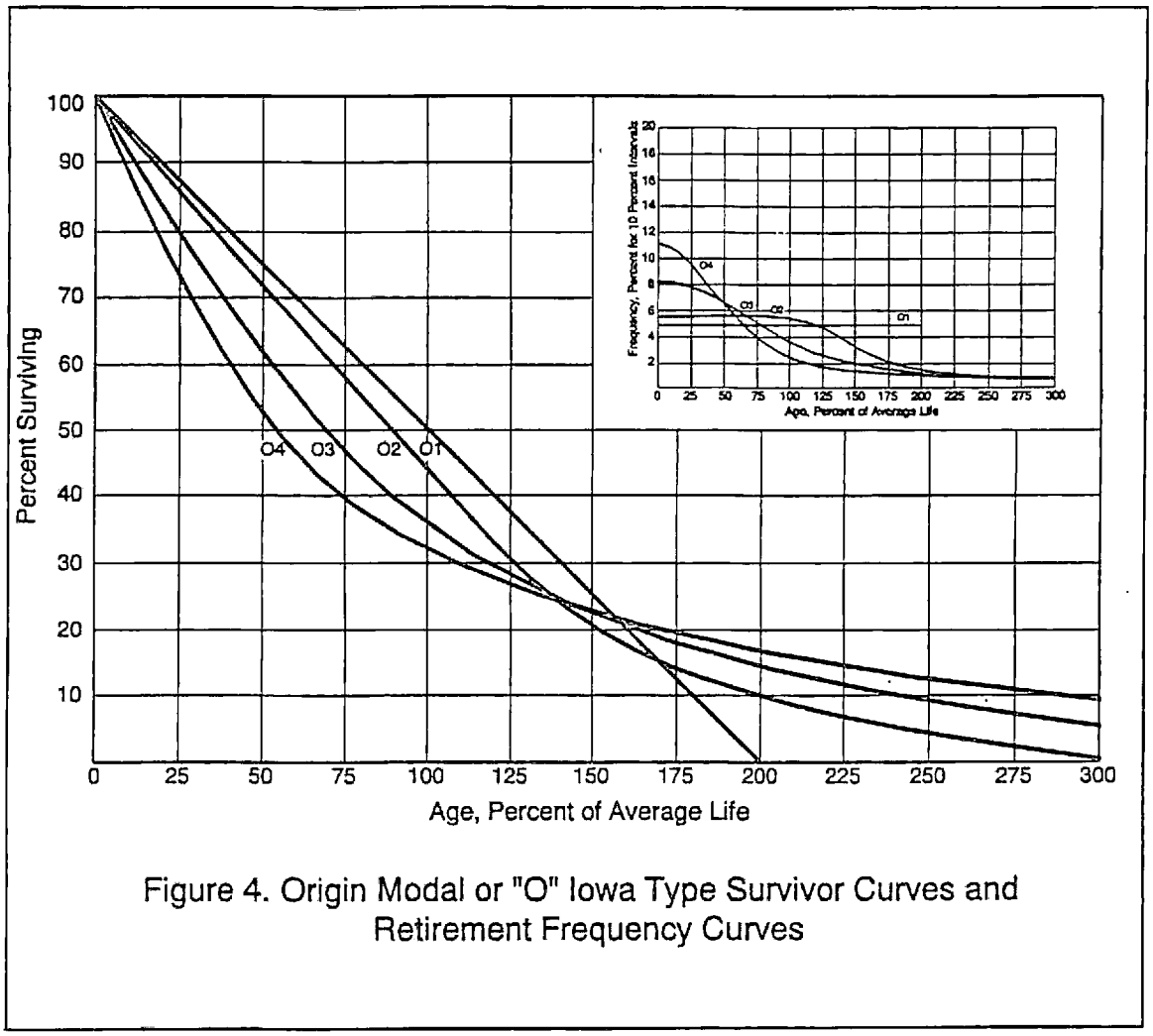

Figure 4. Origin Modal or "O" Iowa Type Survivor Curves and Retirement Frequency Curves

Source: Gannett Fleming.

The Iowa curve set was expanded to 31 curve types by combining the original curves to form *half* curves (e.g., **S0.5**). For any one of the 31 curve types, curves with different average lives may be generated by varying the area under curves of the given type. This process results in an infinite number of curves of the same type, as shown in Figure 5 for the **S0** curve type.

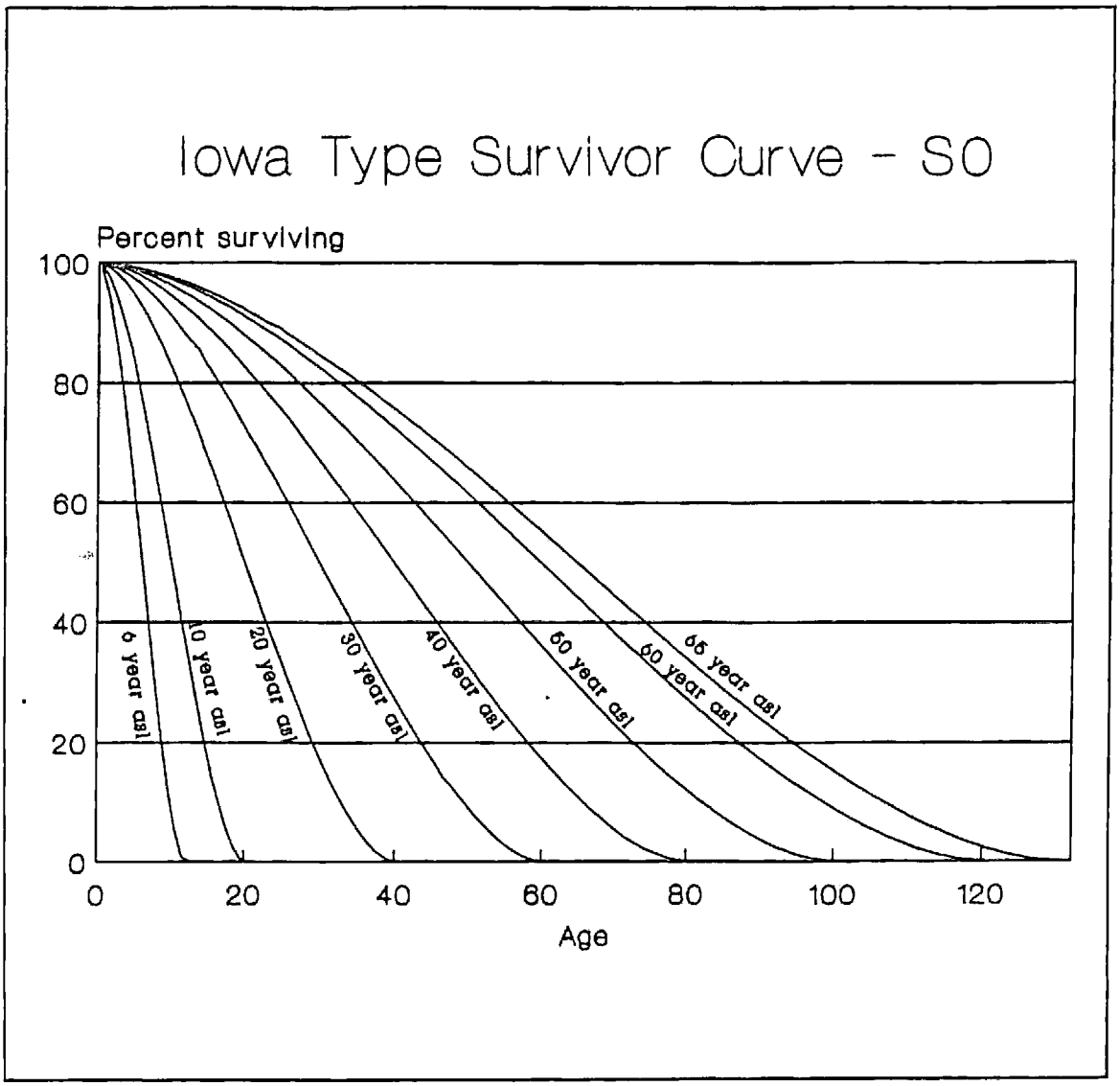

Figure 5. Survivor curves of the **S0** type.

To investigate whether the curves were still representative of property mortality characteristics, G. Russo repeated Winfrey's data collection, testing, and analysis methods. In his Ph.D. dissertation at Iowa State, he concluded the following:[1]

1. No evidence was found to conclude that the Iowa curve set, as it stands, is not a valid system of standard curves.

2. No evidence was found to conclude that new curve shapes, not now represented in the Iowa curve set, are necessary.

[1] Russo, J. G., *Revalidation of Iowa Type Survivor Curves.* Unpublished Ph.D. Dissertation, Iowa State University, Ames, Iowa, 1978.

A NEW SET OF GENERALIZED SURVIVOR TABLES 241

RONALD E. WHITE, Ph.D.

REPRINT

II. Development of the Iowa Curves

The standard survivor curves developed by Kurtz and Winfrey at the Iowa Engineering Experiment Station (now known as the Engineering Research Institute) were originally presented in Bulletin 103 as a set of 13 generalized retirement frequency curves obtained from an analysis of the retirement experience of 65 property groups. The original set of 13 curves was later modified and expanded to include five additional curves. The new curves were developed by Winfrey from an analysis of 124 property groups, which included the 65 group considered in the earlier study. The Iowa curves now number 31. The set includes four origin moded curves developed by Couch, a square (SQ) distribution and eight half-curves suggested by Caunt.

The Iowa curves, which are mathematically described in terms of the Pearson frequency curve family, are classified according to the location of the mode of the retirement frequency curve in relation to the mean and to the maximum height of the modal ordinate.

The mathematical form of the symmetrical frequency distributions is given by

$$y=y_0(1-\frac{t^2}{a^2})^m$$

which is a Pearson type II. The constants in this equation are y_0, a and m which were estimated by the method of moments. The variable t represents age (in units equal to 10 percent of average life) measured from the average life ordinate.

The right and left modal distributions were obtained by segmenting the observed frequencies into major and minor constituent distributions, each of which was fitted to a Pearson type I and summed to obtain the total distribution. The resulting distributions are described by a general equation of the form

$$y=Y_e(1+\frac{t}{A_1})^{M_1}(1-\frac{t}{A_2})^{M_2}$$

$$+y_e(1+\frac{t}{a_1})^{m_1}(1-\frac{t}{a_2})^{m_2}$$

where Y_e, y_e, A_i, a_i, M_i, and m_i (i=1,2) are constants and t represents age (in units equal to 10 percent of average life) measured from the average life ordinate.

The origin moded distributions (except for the group classified as O_1) were obtained through a trial and error adjustment of a Pearson type VIII which is given by the general equation

$$y=y_0(1+\frac{t}{a})^{-m}$$

The group classified as O_1(which is referenced as SC in the new survivor tables) is described by a straight line having an ordinate value of 5.0 for all values of t between -10 and +10.

Because the cumulative proportion surviving was the most common and convenient series to graduate using graphical overlay techniques, the Iowa retirement frequency distributions were numerically integrated to obtain a set of generalized survivor tables. The functional relationship between the retirement frequency distribution and the cumulative proportion surviving S(t) is given by

$$S(t)=1.0-\int_o^t f(x)dx$$

$$=\int_t^\infty f(x)dx$$

Herein lies a problem, however, with modern computer applications of the tables. The functional form of the Iowa retirement frequency distribution f(x) does not permit an evaluation of the definite integral

$$\int_a^o f(x)dx$$

which is required to obtain a survivorship function. The original Iowa survivor tables were therefore developed using a combination of numerical integration techniques to approximate the value of the integral over finite intervals of one percent of average life.

In general, Simpson's quadrature formula was used when the curvature of the frequency curve was too severe to approximate the interval area by the trapezoidal rule. The calculated interval areas were then summed from maximum life to zero age to determine the percent surviving at each one percent of age. Absent a knowledge of the integration technique applied to each age interval, it is impossible to recreate the original published values of the Iowa survivor tables.

2022 RATE CASE
ONCOR ELECTRIC DELIVERY COMPANY LLC
EXHIBIT DAW-2, Book Depreciation Accrual Rate Study
FOR THE TEST YEAR ENDING December 31, 2021
SPONSOR: DANE A. WATSON

ONCOR ELECTRIC DELIVERY COMPANY LLC
DEPRECIATION RATE STUDY
AT DECEMBER 31, 2021

Table of Contents

PURPOSE

The purpose of this study is to develop depreciation rates for the depreciable transmission, distribution, and general property as recorded on the books of Oncor Electric Delivery Company ("Oncor" or "Company") as of December 31, 2021. The depreciation rates were designed to recover the total remaining undepreciated investment, adjusted for net salvage, over the remaining life of Oncor's property on a straight-line basis. Non-depreciable property, property being recovered through the leasehold agreements, and any assets with a remaining net book value from the AMS surcharge were excluded from this study. Oncor is a regulated electric transmission and distribution company principally engaged in providing delivery services to retail electric providers ("REPs") that sell power in the north-central, eastern, and western parts of Texas. Oncor provides the essential service of delivering electricity safely, reliably, and economically to end-use consumers through its distribution systems, as well as providing transmission grid connections to merchant power plants and interconnection to other transmission grids in Texas.

The assets for Oncor have changed since the last depreciation study was adjudicated in Docket No. 46957. In Oncor's last base rate, Docket No. 46957, the Commission's Order was predicated on Oncor and the company known at that time as Sharyland Distribution & Transmission Services, LLC ("Sharyland") reaching closing on a transaction to exchange assets (Oncor was to acquire primarily distribution assets, while Sharyland was to receive certain Oncor CREZ transmission assets). The Sharyland transaction did close, and the asset exchange took place in 2017.

Additionally, in Docket No. 48929, the Commission approved a transaction that resulted in Oncor's acquisition of the electric transmission assets previously held by Sharyland and/or Sharyland Utilities, L.P., and a new wholly owned subsidiary of Oncor, Oncor Electric Delivery Company NTU LLC ("Oncor NTU"), was created to hold those assets. The assets now held by Oncor NTU include mostly transmission, distribution, and general plant. The Oncor NTU assets are currently being depreciated at the depreciation rates approved for Sharyland in Docket No. 45414, which retained the existing depreciation rates from Docket No. 41474. I have prepared one depreciation study that combines Oncor and Oncor NTU assets. At the Company's direction, this study

recommends one set of combined depreciation and amortization rates to be applied to both companies, since Oncor will operate, maintain, and construct Oncor NTU transmission facilities consistent with the same business practices currently used by Oncor.

FERC Account 356 Transmission Overhead Conductor (50 S5)

This account consists of transmission overhead conductors that are used to transmit electricity at voltages of 69 kV and above. A pro-forma adjustment was made to plant to remove plant and accumulated depreciation related to assets to be sold to Lubbock Power and Light. This sales transaction is under review by the Commission in Docket 52726. A proposed order recommends approval of this transaction. After adjustment, there is $3.0 billion in plant in this account. Conductor can consist of aluminum, copper, metal, or steel of various diameters depending on location and design. The approved life for Account 356 is 50 years with an R2 dispersion for Oncor Legacy and 50 years with an R3 dispersion for Oncor NTUSU.

Actuarial analysis was used in Docket No. 35717 to establish historical life characteristic. The Company reports that this account will be impacted by the increasing focus on replacing older conductor as capacity needs change and assets get older. Given the shift in capital expenditure, the Company expects that the life expectations of conductor assets to be less than what would have been seen a few years ago. Company personnel expect conductor to have a shorter life than tower (Account 354) and possibly shorter than poles (Account 355) due to reconductoring. Reconductoring allows for an increase in capacity without requiring the replacement of poles and towers. The increasing level of reconductoring would affect (shorten) the life of the conductor without impacting the structures they are installed on, as there are a number of cases where conductor is replaced without having to replace the poles.

SALVAGE ANALYSIS

When a capital asset is retired, physically removed from service, and finally disposed of, terminal retirement is said to have occurred. The residual value of a terminal retirement is called gross salvage. Net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the asset).

Gross salvage and cost of removal related to retirements are recorded to the general ledger in the accumulated provision for depreciation at the time retirements occur within the system.

Removal cost percentages are calculated by dividing the current cost of removal by the original installed cost of the asset. Some plant assets can experience significant negative removal cost percentages due to the timing of the addition versus the retirement. For example, a Transmission asset in FERC Account 355 with a current installed cost of $500 (2021) would have had an installed cost of $31.19[5] in 1949. A removal cost of $50 for the asset calculated (incorrectly) on current installed cost would only have a -10 percent removal cost ($50/$500). However, a correct removal cost calculation would show a -160 percent removal cost for that asset ($50/$31.19). Inflation from the time of installation of the asset until the time of its removal must be taken into account in the calculation of the removal cost percentage because the depreciation rate, which includes the removal cost percentage, will be applied to the original installed cost of assets.

The Company's net salvage history is shown in Appendix E.

[5] Using the Handy-Whitman Bulletin No. 184, E-4, line 36, $31.19 = $500 x 34/545

Salvage – Intangible Property (0% net salvage)

In Docket Nos. 38929 and 46957, zero net salvage was approved for Oncor's intangible assets. Retirement of software does not produce gross salvage or removal cost. Sharyland does not have any intangible property at December 31, 2021. Based on past practice and judgment, this study recommends retention of zero percent net salvage for this account.

Net Salvage - Transmission Property

The long lead time of transmission projects may result in two to four year gaps between removal cost expenditures and closure of the project with the accompanying retirements. Between 2003 and 2008, the Company began a program to mitigate congestion on transmission lines in the DFW area and replace assets in the infrastructure. Congestion mitigation projects required the reconductoring and rebuilding of towers and poles. Although these projects have moderated, the Company expects these projects to continue as a reduced level in the future. From 2008-2015, the Company focused on new infrastructure, including the CREZ projects, which were authorized by the PUC. Before entering the CREZ construction, Oncor contracted with a single source supplier who performed 100 percent of the transmission construction and removal cost projects. The contract was entered into on June 12, 2008. Between 2007 and 2015, 65% of the Transmission capital budget was focused on greenfield activities. That contract brought significant economies during that period and reduced transmission removal cost, as fewer replacement projects were undertaken, and wages were held at the same level for the contract.

All net salvage percentages represent an estimate of the future, by dividing the net of gross salvage and removal cost by retirements for each plant account. Moving averages, which smooth out yearly fluctuations between retirements and net salvage, are used to examine data over the 1995 to 2021 period and determine net salvage estimates for each account. Detailed analysis and results by account are given discussed below. Net salvage projects must be moderated by judgment given the changing focus of the capital budget and higher removal costs from new contracts.

FERC Account 350 Transmission Depreciable Land Rights (0% net salvage)

This account consists of the salvage and removal cost transactions related to land rights and easements associated with Transmission lines or Transmission substations. The currently approved net salvage percentage is 0 percent for

Oncor Legacy and 0 percent for Oncor NTUSU. Retirement activity has been very limited in this account with no salvage or removal cost. Since land rights intrinsically have no removal costs (removal costs are attributed to the property on the land) and have no salvage value, this study recommends retention of 0 percent net salvage for this account.

FERC Account 352 Transmission Substation Structures and Improvements (-50% net salvage)

This account consists of the salvage and removal cost transactions related to Transmission substation structures. The currently approved net salvage percentage is negative 37 percent for Oncor Legacy and negative five percent for Oncor NTUSU. A large level of retirements in 2021 has appeared to moderate net salvage from year end 2020 levels. The five-year and 10-year net salvage percentages are negative 45 and negative 49 percent respectively. Excluding 2021 data, the percentages exceed negative 100 percent. This study recommends a conservative movement to negative 50 percent net salvage for this account.

FERC Account 352 Transmission Station Structures and Improvements DC Tie Lines and SVC assets (-50% net salvage)

This account consists of the salvage and removal cost transactions related to DC Ties Lines and SVC Transmission substation structures. The currently approved net salvage percentage is negative 37 percent for Oncor Legacy and negative five percent for Oncor NTUSU. Based on the recommendation for Account 352, this study recommends a conservative movement to negative 50 percent net salvage for this account.

FERC Account 353 Transmission Station Equipment (-15% net salvage)

This account consists of the salvage and removal cost transactions related to a wide variety of transmission substation equipment, from circuit breakers to

switchgear. The currently approved net salvage percentage is negative 15 percent for Oncor Legacy and negative 10 percent for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 19 and negative 16 percent respectively. This study recommends a negative 15 percent net salvage for this account.

FERC Account 353 Transmission Station Equipment DC Tie Lines and SVC Assets (-15% net salvage)

This account consists of the salvage and removal cost transactions related to a DC tie lines and SVC assets. These items have previously been depreciated as part of Account 353. The currently approved net salvage percentage is negative 15 percent for Oncor Legacy and negative 10 percent for Oncor NTUSU. Based on the recommendation for Account 353 Transmission Station Equipment, this study recommends a negative 15 percent net salvage for this account.

FERC Account 354 Transmission Tower and Fixtures (-40% net salvage)

This account consists of the salvage and removal cost transactions related to transmission towers that are used to transmit electricity at a voltage of 69 kV and above. The currently approved net salvage percentage is negative 35 percent for Oncor Legacy and negative 20 percent for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 41 and negative 34 percent respectively. The 15-year net salvage for this account is negative 43 percent. This study recommends moving to negative 40 percent net salvage for this account.

FERC Account 355 Transmission Poles and Fixtures (-75% net salvage)

This account consists of the salvage and removal cost transactions related to transmission poles and fixtures which are used to transmit electricity at a voltage of 69 kV and above. The currently approved net salvage percentage is negative 100 percent for Oncor Legacy and negative 50 percent for Oncor

NTUSU. The five-year and 10-year net salvage percentages are negative 64 and negative 52 percent respectively. The 15-year and 20-year net salvage for this account are negative 63 percent and negative 80 percent respectively. This study recommends incrementally moving to negative 75 percent net salvage for this account at this point.

FERC Account 356 Transmission Overhead Conductor (-40% net salvage)

This account consists of the salvage and removal cost transactions related to transmission overhead conductors that are used to transmit electricity at voltages of 69 kV and above. The currently approved net salvage percentage is negative 70 percent for Oncor Legacy and negative 50 percent for Oncor NTUSU. The five year and 10-year net salvage percentages are negative 33 and negative 28 percent respectively. The 15-year and 20-year net salvage percentages for this account are negative 38 and negative 50 percent respectively. This study recommends incrementally moving to negative 40 percent net salvage for this account.

FERC Account 357 Transmission Underground Conduit (-10% net salvage)

This account consists of the salvage and removal cost transactions related to underground conduit used for the transmission network serving portions of Dallas and Fort Worth. The currently approved net salvage percentage is negative 10 percent for Oncor Legacy and there was no plant for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 25 and negative 23 percent net salvage respectively. Based on the limited data, it is evident that removal cost will be incurred in the retirement of underground conduit. This study recommends retaining negative 10 percent net salvage for this account until more information is available.

FERC Account 358 Transmission Underground Conductor and Devices (-20% net salvage)

This account consists of the salvage and removal cost transactions related to underground conductor used for the transmission network serving Dallas and Fort Worth. The currently approved net salvage percentage is negative 10 percent for Oncor Legacy and there was no plant for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 70 and negative 51 percent respectively. Based on the limited data, it is evident that removal cost will be incurred in the retirement of underground conduit. The 15-year net salvage percentage for this account is negative 77 percent. Since there is limited data available, this study recommends a conservative movement to negative 20 percent net salvage for this account until more information is available.

Net Salvage - Distribution Property

Since 1998, accounting systems have improved to allow account level detail on salvage and removal cost for distribution mass accounts, i.e., Accounts 364-373, to be extracted from functional amounts reported on the general ledger. Distribution Information System ("DIS") software generates addition and removal cost information for each capital project, based on the materials and labor activities project designers indicate are necessary to complete the project. Over the course of each project, DIS interfaces with the general ledger and CPR system to send addition, retirement, and removal cost information based on project design parameters. Net salvage data by account is available since 1995 for Accounts 360-362. Negative net salvage within this function was authorized in the Final Order in Docket No. 35717.

What has changed somewhat is the overall nature and allocation of capital investments made by the Company in distribution projects since Docket No. 35717. Specifically, in the 2008 to 2012 timeframe, in addition to the focus on new transmission infrastructure, the Company deployed various grid-enhancing technologies throughout the Oncor system. These investments resulted in a temporary focus on new infrastructure as compared to the balance the Company has made historically (and what it expects to make in the future) on more traditional distribution upgrade and/or replacement projects. In 2007-2012, for example, smart grid-related capital expenditures made up approximately 26% of Oncor's overall distribution capital investments. The table below shows the percentage of the capital budget that was dedicated to smart grid infrastructure.

Year	Percentage of Total
2007	11.0%
2008	4.3%%
2009	36.6%
2010	34.69%
2011	32.65%
2012	31.17%

After completion of the smart grid technologies, the Company has returned to more balanced capital expenditures for distribution. The impact of capital being more focused on infrastructure replacement is expected to increase the amount of retirements and the corresponding removal cost.

The results of those account level net salvage analyses are shown below. Account specific information for distribution property is found below.

FERC Account 360 Distribution Depreciable Land Rights (0% net salvage)

This account consists of the salvage and removal cost transactions related to land rights and easements associated with distribution property or distribution substations. The currently approved net salvage percentage is 0 percent for Oncor Legacy and 0 percent for Oncor NTUSU. Retirement activity has been very limited in this account with no salvage or removal cost. Since land rights intrinsically have no removal costs (removal costs are attributed to the property on the land) and have no salvage value, this study recommends a 0 percent net salvage for this account.

FERC Account 361 Distribution Substation Structures and Improvements (-40% net salvage)

This account consists of the salvage and removal cost transactions related to Distribution substation structures. The currently approved net salvage percentage is negative 25 percent for Oncor Legacy and negative 5 percent for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 69 and negative 55 percent respectively. The 15-year net salvage percentage for this account is negative 44 percent. As infrastructure replacement spending rises, removal cost is also expected to increase. This study recommends moving to negative 40 percent net salvage for this account.

FERC Account 362 Distribution Substation Equipment (-25% net salvage)

This account consists of the salvage and removal cost transactions related to a wide variety of distribution substation equipment, from circuit breakers to switchgear. The currently approved net salvage percentage is negative 7 percent for Oncor Legacy and negative 10 percent for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 29 and negative 25 percent respectively. This study recommends a negative 25 percent net salvage for this account.

FERC Account 364 Distribution Poles, Towers, and Fixtures (-100% net salvage)

This account consists of the salvage and removal cost transactions related to poles and towers of various material types: wood, concrete, and steel. The currently approved net salvage percentage is negative 40 percent for Oncor Legacy and negative 50 percent for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 136 and negative 133 percent respectively. This study recommends an incremental move toward the more negative net salvage indications with a negative 100 percent net salvage. .

Account 365 Distribution Overhead Conductor and Devices (-75% net salvage)

This account consists of the salvage and removal cost transactions related to overhead conductor of various thickness, as well as various switches and reclosers. The currently approved net salvage percentage is negative 40 percent for Oncor Legacy and negative 30 percent for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 98 and negative 89 percent respectively . This study recommends moving to negative 75 percent net salvage as a conservative estimate of the ongoing removal cost in this account.

FERC Account 366 Distribution Underground Conduit (-40% net salvage)

This account consists of the salvage and removal cost transactions related

to distribution conduit, duct banks, vaults, manholes, and ventilating system equipment. The currently approved net salvage percentage is negative 20 percent for Oncor Legacy and negative 10 percent for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 136 and negative 87 percent respectively. This study recommends a negative 40 percent net salvage as a conservative estimate of the ongoing removal cost in this account.

FERC Account 367 Distribution Underground Conductor and Devices (-20% net salvage)

This account consists of the salvage and removal cost transactions related to distribution conductor, switches, and switchgear. The currently approved net salvage percentage is negative 5 percent for Oncor Legacy and negative 10 percent for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 35 and negative 28 percent respectively. This study recommends a negative 20 percent net salvage as a conservative estimate of the ongoing removal cost in this account.

FERC Account 368 Distribution Line Transformers (-20% net salvage)

This account consists of the salvage and removal cost transactions related to line transformers, regulators, and capacitors. The currently approved net salvage percentage is negative 15 percent for Oncor Legacy and negative 5 percent for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 21 and negative 25 percent respectively. This study recommends a negative 20 percent net salvage for the ongoing removal cost in this account.

FERC Account 369 Distribution Services (-30% net salvage)

This account consists of the salvage and removal cost transactions related to all distribution services, both overhead and underground. The currently approved net salvage percentage is negative 15 percent for Oncor Legacy and negative 30 percent for Oncor NTUSU. The Company uses standard cost units

for retiring these assets. The five-year and 10-year net salvage percentages are negative 43 and negative 44 percent respectively. This study recommends moving to negative 30 percent net salvage as a conservative estimate of the ongoing removal cost for this account.

FERC Account 370 Meters (-7% net salvage)

This account consists of the salvage and removal cost transactions related to advance meters installed after 2012 and Interval Data recorder ("IDR") meters. The currently approved net salvage percentage is negative 5 percent for Oncor Legacy. There is no plant in this account for Oncor NTUSU. The five-year and ten-year net salvage percentages are negative 9 and negative 4 percent respectively. This study recommends a negative seven percent net salvage for the ongoing removal cost for this account.

FERC Account 370 IDR Meters (-10% net salvage)

This account consists of the salvage and removal cost transactions related to Interval Data recorder ("IDR") meters. The currently approved net salvage percentage is negative 5 percent for Oncor Legacy. There is no plant in this account for Oncor NTUSU. The five-year and ten-year net salvage percentages are negative 17 and negative 16 percent respectively. This study recommends a negative 10 percent net salvage for the ongoing removal cost for this account.

FERC Account 371 Distribution Installation on Customer Premises (-60% net salvage)

This account consists of the salvage and removal cost transactions related to guard lights and guard light standards. The currently approved net salvage percentage is negative 20 percent for Oncor Legacy and negative 15 percent for Oncor NTUSU. This account has experienced changes in net salvage over the study period. The five-year and 10-year net salvage percentages are negative 104 and negative 93 percent respectively. This study recommends a negative 60

percent net salvage based on the longer bands and as a conservative estimate when looking at the more recent indications of the ongoing removal cost in this account.

FERC Account 373 Distribution Street Lighting (-40% net salvage)

This account consists of the salvage and removal cost transactions related to all distribution streetlights, conductor, conduit, luminaire, and standards. The currently approved net salvage percentage is negative 20 percent for Oncor Legacy and negative 10 percent for Oncor NTUSU. The five-year and 10-year net salvage percentages are negative 49 and negative 48 percent respectively. This study recommends a negative 40 percent net salvage in this account, which is reflective of the experience across the bands.

Net Salvage - General Property

General Plant Depreciated

FERC Account 389 Land Rights (0% net salvage)

The current net salvage estimate for this account is 0 percent. The currently approved net salvage percentage is 0 percent for Oncor Legacy and 0 percent for Oncor NTUSU. Land rights generally have no salvage value at retirement, and none is shown in the analysis. A 0 percent net salvage is recommended for this account.

FERC Account 390 Structures and Improvements (-5% net salvage)

This account consists of all general plant structures, which may range from buildings to building components such as HVAC systems or roofs. The currently approved net salvage percentage is 0 for both Oncor Legacy and Oncor NTUSU. In general, the Company does not charge removal cost for replacements in this account. Large removal cost amounts in 2017 and 2018 were related to remediation prior to offering a building for sale, Such remediation may be required for future sales of owned facilities. The most recent 5-year and 10-year moving averages are negative 15.44 and negative 8.74 percent respectively. Since it is evident that this account does experience negative net salvage, a negative 5 percent net salvage is recommended for this account.

FERC Account 397 Communication Equipment (-2% net salvage)

This account consists of assorted communication equipment such as fiber optic cable, microwave equipment, and load monitoring equipment. The currently approved net salvage percentage is 0 percent for Oncor Legacy and 0 percent for Oncor NTUSU. The overall 10 year moving average is negative 6 percent and negative 3 percent for the 15- and 20-year periods. For the present, this study recommends a slight change in net salvage using negative 2 percent net salvage

for this account.

General Plant Amortized

FERC Account 391 Furniture and Fixtures (0% net salvage)

This account consists of furniture and fixtures such as desks, tables, chairs, and cabinets. The currently approved net salvage percentage is 0 percent for Oncor Legacy and 0 percent for Oncor NTUSU. There have been small amounts of gross salvage and cost of removal received for assets in this account. The overall 10 year moving average shows negative 1 percent. This study recommends retaining 0 percent net salvage for this account.

FERC Account 391 Computer Equipment (0% net salvage)

This account consists of gross salvage and cost of removal related to computer equipment, network equipment, and servers. Previously these assets were combined in Account 391 Office Furniture and Fixtures with furniture and fixtures such as desks, tables, chairs, and cabinets. The currently approved net salvage percentage is 0 percent for Oncor Legacy and 0 percent for Oncor NTUSU. It is not possibly to segregate Company history for this account into the two subaccounts. Based on experience with Account 391 Furniture and Fixtures and judgment on the value of used computer equipment, this study recommends retaining 0 percent net salvage for this account.

FERC Account 392 Transportation Equipment (20% net salvage)

This combination of accounts consists of automobiles, trucks, trailers, and other transportation equipment that might be a licensed vehicle. The currently approved net salvage percentage is positive 10 percent for Oncor Legacy and positive 15 percent for Oncor NTUSU. The moving averages for this account vary over the most recent transaction year. The combined Account of 392 and 396 was used to predict the future for this account. Proceeds on a year-to-year basis have been erratic. Given the erratic data patterns, this study recommends looking at longer moving averages to model future activity. Based in Company history and judgment, this study recommends positive 20 percent net salvage for the

combined account.

FERC Account 393 Stores Equipment (0% net salvage)

This account consists of general property related to stores such as cabinets, shelving materials, ramps, and material storage units. The currently approved net salvage percentage is 0 for Oncor Legacy and 0 percent for Oncor NTUSU. Since 1995, property retired in this account has produced minimal or no gross salvage. Since 1999, no gross salvage has been received for any equipment in this account. A 0 percent net salvage was chosen for this account based on historical trends and expectations of future net salvage activity. Retaining 0 percent net salvage is recommended for this account.

FERC Account 394 Large Tools (0% net salvage)

This account consists of various items or tools used in shop and garages, such as air compressors, grinders, mixers, hoists, and cranes. The currently approved net salvage percentage is 0 percent for Oncor Legacy and 0 percent for Oncor NTUSU. There have been small amounts of gross salvage and cost of removal received for assets in this account. The overall 10 year moving average shows negative 2 percent. Given the small amount of activity, this study recommends retaining 0 percent net salvage for this account.

FERC Account 394 Small Tools (0% net salvage)

This account consists gross salvage and cost of removal for various tools such as blowers, cable and wire handling equipment, drills, hot line tools, jacks, power hammers, power hand tools, saws, special purpose tools, work benches, welding equipment special purpose tools, and toolboxes. The currently approved net salvage percentage is 0 percent for Oncor Legacy and 0 percent for Oncor NTUSU. It is not possibly to segregate Company history for this account into the two subaccounts. Based on experience with Account 394 Large Tools and judgment on the value of used tools, this study recommends retaining 0 percent

net salvage for this account.

FERC Account 395 Laboratory Equipment (0% net salvage)

This account consists of laboratory equipment such as centrifuges, testing equipment, and other laboratory devices. The currently approved net salvage percentage is 0 percent for Oncor Legacy and 0 percent for Oncor NTUSU. No gross salvage has been received for any equipment in this account, and cost of removal has been very small. This study recommends retaining 0 percent net salvage for this account.

FERC Account 396 Power Operated Equipment (20% net salvage)

This account consists of power operated equipment such as bulldozers, forklifts, pile drivers, and tractors. The currently approved net salvage percentage is positive 10 percent for Oncor Legacy and positive 5 percent for Oncor NTUSU. No gross salvage has been received for any equipment in this account, and cost of removal has been very small. Based on results from the combined 392 and 396 account, this study recommends moving to positive 20 percent net salvage for this account.

FERC Account 397 Communication Equipment (0% net salvage)

This account consists of assorted communication equipment such as antennas, towers, telephone systems, multiplex systems, conductor, and remote-controlled diagnostics equipment. The currently approved net salvage percentage is 0 percent for Oncor Legacy and 0 percent for Oncor NTUSU. There has been no gross salvage or cost of removal since 2009. This study recommends retaining 0 percent net salvage for this account

FERC Account 398 Miscellaneous Equipment (0% net salvage)

This account consists of miscellaneous equipment such as kitchen equipment, fire extinguishers, portable buildings, photographic equipment, and

portable lighting systems. The currently approved net salvage percentage is 0 percent for Oncor Legacy and 0 percent for Oncor NTUSU. Over history from 1995-2005, property retired in this account has produced a small amount of gross salvage and nominal removal cost. A 0 percent net salvage is recommended for this account

APPENDIX A

Depreciation Rate Calculations

2022 RATE CASE
ONCOR ELECTRIC DELIVERY LLC
COMPUTATION OF DEPRECIATION ACCRUAL RATE
FOR THE TEST YEAR ENDING DECEMBER 31, 2021

Account	Description	Original Cost at 12/31/21	Allocated Reserve at 12/31/21	Net Salvage %	Net Salvage Amount	Unrecovered Investment	Remaining Life	Annual Accrual Amount	Annual Accrual %
Intangible									
303	Intangible 3 year	408,078	180,561	0%	0	227,516	1.76	129,157	31.65%
303	Intangible 5 year	32,215,865	9,177,651	0%	0	23,038,214	3.73	6,178,313	19.18%
303	Intangible 8 year	328,240,028	147,154,995	0%	0	181,085,033	4.90	36,973,871	11.26%
303	Intangible 15 year	559,318,494	152,144,531	0%	0	407,173,963	11.27	36,138,872	6.46%
	Total Intangible	920,182,465	308,657,738		0	611,524,727		79,420,212	
Transmission									
350	Land and Land Rights	615,926,404	106,785,501	0%	0	509,140,903	84.53	6,022,981	0.98%
352	Structures and Improvements	397,934,615	122,655,025	-50%	(198,967,308)	474,246,898	44.91	10,561,089	2.65%
353	Station Equipment	3,559,128,941	689,190,223	-15%	(533,869,341)	3,403,808,059	42.49	80,110,052	2.25%
354	Towers and Fixtures	1,929,652,755	467,580,047	-40%	(771,861,102)	2,233,933,810	59.19	37,740,833	1.96%
355	Poles and Fixtures	2,870,770,311	664,853,703	-75%	(2,153,077,733)	4,358,994,341	48.51	89,864,312	3.13%
356	Overhead Conductor	3,044,581,320	978,999,051	-40%	(1,217,832,528)	3,283,414,796	39.71	82,695,046	2.72%
357	Underground Conduit	60,197,135	19,336,448	-10%	(6,019,713)	46,880,401	44.37	1,056,605	1.76%
358	Underground Conductor and Devices	84,097,343	33,548,402	-20%	(16,819,469)	67,368,409	35.17	1,915,431	2.28%
352	DC Tie	1,686,569	1,004,480	-50%	(843,284)	1,525,374	35.52	42,946	2.55%
353	DC Tie	30,852,549	19,952,248	-15%	(4,627,882)	15,528,183	17.94	865,433	2.81%
352	SVC	20,424,706	4,397,608	-50%	(10,212,353)	26,239,451	47.96	1,099,391	5.38%
353	SVC	339,034,197	90,244,579	-15%	(50,855,130)	299,644,747	23.81	12,587,330	3.71%
		12,954,286,845	3,198,547,316		(4,964,985,843)	14,720,725,372		324,561,451	
Distribution Substations									
360	Land and Land Rights	5,858,702	1,166,793	0%	0	4,691,909	57.89	81,047	1.38%
361	Structures and Improvements	227,950,838	64,649,267	-40%	(91,180,335)	254,481,906	53.56	4,751,511	2.08%
362	Station Equipment	2,433,137,893	599,558,459	-25%	(608,284,473)	2,441,863,908	48.07	50,799,205	2.09%
		2,666,947,433	665,374,519		(699,464,808)	2,701,037,722		55,631,763	
Distribution									
360	Land and Land Rights	18,508,221	8,767,327	0%	0	9,740,894	42.36	229,982	1.24%
364	Poles, Towers, and Fixtures	2,679,007,190	1,107,841,801	-100%	(2,679,007,190)	4,250,172,580	44.70	95,086,678	3.55%
365	Overhead Conductor and Devices	1,676,515,252	635,519,287	-75%	(1,257,386,439)	2,298,382,403	43.05	53,389,547	3.18%
366	Underground Conduit	1,082,662,296	452,267,861	-40%	(433,064,918)	1,063,459,353	45.08	23,590,703	2.18%
367	Underground Conductor and Devices	2,555,767,640	578,524,153	-20%	(511,153,528)	2,488,397,015	43.83	56,776,913	2.22%
368	Line Transformers	2,493,082,807	743,687,643	-20%	(498,616,561)	2,248,011,725	39.64	56,703,755	2.27%
369	Services	1,652,238,990	1,097,314,113	-30%	(495,671,697)	1,050,596,574	20.91	50,246,720	3.04%
370	Meters (Post AMS)	199,955,073	25,049,410	-7%	(13,996,855)	188,902,519	18.05	10,466,010	5.23%
370	IDR Meters	162,996,844	89,799,408	-10%	(16,299,684)	89,497,121	13.30	6,729,285	4.13%
371	Installation on Customer Premises	54,631,097	75,069,053	-60%	(32,778,658)	12,340,702	5.16	2,390,143	4.38%
373	Street Lighting	437,411,078	372,034,958	-40%	(174,964,431)	240,340,551	11.44	21,014,035	4.80%
		13,012,776,489	5,185,875,013		(6,112,939,963)	13,939,841,438		376,623,772	
General Plant Depreciated									
389	Land and Land Rights	142,598	23,827	0%	0	118,772	40.73	2,916	2.05%
390	Structures and Improvements	253,852,226	21,404,361	-5%	(12,692,611)	245,140,476	49.23	4,979,354	1.96%
397	Communication Equipment	77,314,645	7,355,572	-2%	(1,546,293)	71,505,366	19.79	3,613,499	4.67%
	General Depreciated	331,309,469	28,783,760		(14,238,904)	316,764,614		8,595,769	

2022 RATE CASE
ONCOR ELECTRIC DELIVERY LLC
COMPUTATION OF DEPRECIATION ACCRUAL RATE
FOR THE TEST YEAR ENDING DECEMBER 31, 2021

Account	Description	Plant Balance at 12/31/21	Allocated Reserve at 12/31/21	Theoretical Reserve at 12/31/21	Reserve Difference	Amoritzation Period	Amortize Reserve Difference	Assets To Retire
Amortized Account								
391	Office Furniture and Equipment	22,857,230	2,164,598	4,837,865	(2,673,268)	8.00	334,158	0
391	Computer Equipment	285,165,642	140,525,746	200,167,538	(59,641,792)	8.00	7,455,224	92,232,608
392	Auto/Light Trucks	5,223,005	2,648,587	3,653,998	(1,005,411)	8.00	125,676	2,293,107
392	Heavy Trucks	1,040,309	315,690	622,395	(306,706)	8.00	38,338	84,180
392	Trailers	16,599,748	1,862,298	4,162,228	(2,299,929)	8.00	287,491	0
393	Stores Equipment	4,996,537	994,470	2,222,635	(1,228,165)	8.00	153,521	0
394	Large Tools	18,277,262	3,391,824	7,580,710	(4,188,886)	8.00	523,611	0
394	Small Tools	25,151,323	13,479,665	16,156,448	(2,676,783)	8.00	334,598	11,312,221
395	Laboratory Equipment	51,910,324	8,230,086	18,577,977	(10,347,891)	8.00	1,293,486	0
396	Power Operated Equipment	12,897,886	4,007,608	5,767,712	(1,760,104)	8.00	220,013	3,228,020
397	Communication Equipment	71,479,252	12,601,480	24,722,731	(12,121,252)	8.00	1,515,156	3,017,141
398	Miscellaneous Equipment	12,767,814	1,255,625	2,806,315	(1,550,690)	8.00	193,836	0
		528,366,331	191,477,674	291,278,551	(99,800,877)		12,475,110	112,167,277

Excluding Fully Accrued Assets:

Account	Description	Plant Balance at 12/31/20	Allocated Reserve at 12/31/20	Amortization Life	Amortization Net Salv %	Total Amortization	Amortization Rate
391	Office Furniture and Equipment	22,857,230	2,164,598	20	0%	1,142,861	5.00%
391	Computer Equipment	192,933,034	48,293,138	7	0%	27,561,862	14.29%
392	Auto/Light Trucks	2,929,898	355,480	7	20%	334,846	11.43%
392	Heavy Trucks	956,129	231,510	10	20%	76,490	8.00%
392	Trailers	16,599,748	1,862,298	15	20%	885,320	5.33%
393	Stores Equipment	4,996,537	994,470	40	0%	124,913	2.50%
394	Large Tools	18,277,262	3,391,824	35	0%	522,207	2.86%
394	Small Tools	13,839,102	2,167,444	10	0%	1,383,910	10.00%
395	Laboratory Equipment	51,910,324	8,230,086	25	0%	2,076,413	4.00%
396	Power Operated Equipment	9,669,866	779,587	15	20%	515,726	5.33%
397	Communication Equipment	68,462,111	9,584,339	15	0%	4,564,141	6.67%
398	Miscellaneous Equipment	12,767,814	1,255,625	22	0%	580,355	4.55%
		416,199,054	79,310,397			39,769,045	

APPENDIX B

Recommended Change in Depreciation Accrual

2022 RATE CASE
ONCOR TOTAL
COMPARISON OF DEPRECIATION RATES
FOR THE TEST PERIOD ENEDED DECEMCEMBER 31, 2021

Account	Description	Original Cost at 12/31/21	Existing Annual Accrual %	Existing Annual Accrual $	Proposed Annual Accrual %	Proposed Annual Accrual $	Difference $
Intangible							
303	Intangible 3 year	408,078	14.06%	57,376	31.65%	129,157	71,781
303	Intangible 5 year	32,215,865	14.06%	4,529,551	19.18%	6,178,313	1,648,762
303	Intangible 8 year	328,240,028	8.46%	27,769,106	11.26%	36,973,871	9,204,764
303	Intangible 15 year	194,391,584	5.61%	10,905,368	6.46%	12,560,093	1,654,726
303	CC&B & Aegis Systems - Settlement life	364,926,910	4.00%	14,597,076	6.46%	23,578,778	8,981,702
		920,182,465		57,858,477	8.63%	79,420,212	21,561,735
Transmission							
350	Land and Land Rights	615,926,404		5,215,664	0.98%	6,022,981	807,317
352	Structures and Improvements	397,934,615		10,719,658	2.65%	10,561,089	(158,569)
353	Station Equipment	3,559,128,941		88,792,317	2.25%	80,110,052	(8,682,265)
354	Towers and Fixtures	1,929,652,755		42,231,411	1.96%	37,740,833	(4,490,577)
355	Poles and Fixtures	2,870,770,311		112,077,282	3.13%	89,864,312	(22,212,970)
356	Overhead Conductor	3,044,581,320		102,092,788	2.72%	82,695,046	(19,397,741)
357	Underground Conduit	60,197,135		1,318,317	1.76%	1,056,605	(261,712)
358	Underground Conductor and Devices	84,097,343		2,295,857	2.28%	1,915,431	(380,426)
352	DC Tie	1,686,569		47,899	2.55%	42,946	(4,952)
353	DC Tie	30,852,549		768,228	2.81%	865,433	97,204
352	SVC	20,424,706		527,730	5.38%	1,099,391	571,662
353	SVC	339,034,197		8,481,166	3.71%	12,587,330	4,106,163
	Total Transmission	12,954,286,845	2.89%	374,568,318	2.51%	324,561,451	(50,006,866)
Distribution Substations							
360	Land and Land Rights	5,858,702		70,890	1.38%	81,047	10,156
361	Structures and Improvements	227,950,838		4,948,730	2.08%	4,751,511	(197,219)
362	Station Equipment	2,433,137,893		42,936,682	2.09%	50,799,205	7,862,523
	Total Distribution Substation	2,666,947,433	1.80%	47,956,303	2.09%	55,631,763	7,675,460
Distribution							
360	Land and Land Rights	18,508,221		223,949	1.24%	229,982	6,032
364	Poles, Towers, and Fixtures	2,679,007,190		77,433,626	3.55%	95,086,678	17,653,053
365	Overhead Conductor and Devices	1,676,515,252		47,456,867	3.18%	53,389,547	5,932,680
366	Underground Conduit	1,082,662,296		20,677,925	2.18%	23,590,703	2,912,778
367	Underground Conductor and Devices	2,555,767,640		65,948,558	2.22%	56,776,913	(9,171,645)

2022 RATE CASE
ONCOR TOTAL
COMPARISON OF DEPRECIATION RATES
FOR THE TEST PERIOD ENEDED DECEMCEMBER 31, 2021

Account	Description	Original Cost at 12/31/21	Existing Annual Accrual %	Existing Annual Accrual $	Proposed Annual Accrual %	Proposed Annual Accrual $	Difference $
368	Line Transformers	2,493,082,807		59,086,063	2.27%	56,703,755	(2,382,308)
369	Services	1,652,238,990		46,097,468	3.04%	50,246,720	4,149,252
370	Meters (Post AMS)	199,955,073		7,818,243	5.23%	10,466,010	2,647,766
370	IDR Meters	162,996,844		6,373,177	4.13%	6,729,285	356,109
371	Installation on Customer Premises	54,631,097		1,628,007	4.38%	2,390,143	762,137
373	Street Lighting	437,411,078		16,402,920	4.80%	21,014,035	4,611,116
	Total Distribution	13,012,776,489	2.68%	349,146,802	2.89%	376,623,772	27,476,969
General Plant							
389	Land and Land Rights	142,598		2,538	2.05%	2,916	378
390	Structures and Improvements	253,852,226		4,524,921	1.96%	4,979,354	454,433
397	Communication Equipment	77,314,645		4,739,388	4.67%	3,613,499	(1,125,889)
	General Depreciated	331,309,469	2.80%	9,266,847	2.59%	8,595,769	(671,077)
Retired Fully Accrued Assets							
391	Computer Equipment	92,232,608		0		-	0
392	Auto/Light Trucks	2,293,107		0		-	0
392	Heavy Trucks	84,180					
394	Small Tools	11,312,221		0		-	0
396	Power Operated Equipment	3,228,020		0		-	0
397	Communication Equipment	3,017,141		0		-	0
	General Amortized Retired Plant	112,167,277		0	0.00%	-	0
Amortized Accounts (Retire Assets > ASL)							
391	Office Furniture and Equipment	22,857,230		1,471,255	5.00%	1,142,861.48	(328,394)
391	Computer Equipment	192,933,034		13,253,848	14.29%	27,561,862.01	14,308,014
392	Auto/Light Trucks	2,929,898		196,868	11.43%	334,845.50	137,978
392	Heavy Trucks	956,129		70,562	8.00%	76,490.36	5,928
392	Trailers	16,599,748		1,222,322	5.33%	885,319.89	(337,002)
393	Stores Equipment	4,996,537		150,895	2.50%	124,913.41	(25,982)
394	Large Tools	18,277,262		566,595	2.86%	522,207.48	(44,388)
394	Small Tools	13,839,102		429,171	10.00%	1,383,910.20	954,740
395	Laboratory Equipment	51,910,324		2,299,627	4.00%	2,076,412.95	(223,214)
396	Power Operated Equipment	9,669,866		307,501	5.33%	515,726.18	208,225
397	Communication Equipment	68,462,111		3,603,550	6.67%	4,564,140.74	960,591