



**Public Utilities  
Commission**

Mike DeWine, Governor  
M. Beth Trombold, Acting Chair

**Commissioners**

Lawrence K. Friedeman  
Dennis P. Deters  
Daniel R. Conway

November 25, 2020

Docketing Division  
Public Utilities Commission of Ohio  
180 East Broad Street  
Columbus OH 43215

RE: *In the Matter of the Application of Ohio Power Company for an Increase in Electric Distribution Rates, Case Nos. 20-585-EL-AIR, 20-586-EL-ATA, and 20-587-EL-AAM.*

Dear Docketing Division:

Enclosed please find Staff's corrected Staff Report replacing the Staff Report issued on November 18, 2020 regarding Ohio Power Company, for an Increase in Electric Distribution Rates, Case Nos. 20-585-EL-AIR, et al.

Enclosure

Cc: Parties of Record

**Ohio Power Company**  
**Case No. 20-585-EL-AIR**  
**Case No. 20-586-EL-ATA**  
**Case No. 20-587-EL-AAM**

The purpose of this letter is to amend the Staff Report filed on November 18, 2020 in order to correct a clerical error contained within the schedules of the Staff Report for which three values were erroneously deleted. The clerical error was contained in Staff WPB-2.2b (cells K34 & K35) and WPB-2.2c (cell K35). Staff notes that this clerical error does not affect the revenue requirement, adjustments, or any other recommendations contained in the text of the Staff Report. This clerical error affected the following schedules:

- A-1: Overall Financial Summary
- B-1: Jurisdictional Rate Base Summary
- B-2: Plant in Service Summary by Major Property Groupings
- B-2.1: Plant in Service by Accounts and Subaccounts (pages 3 & 4)
- B-2.2: Adjustments to Plant in Service
- B-3.2: Depreciation Accrual Rates and Jurisdictional Reserve Balance by Accounts (pages 1 & 2)
- C-1: Jurisdictional Pro Forma Income Statement
- C-2: Jurisdictional Adjusted Test Year Net Electric Operating Income
- C-3: Summary of Jurisdictional Adjustments to Operating Income (pages 1, 2, & 3)
- C-3.12: Annualized Depreciation Expense
- C-3.13: Depreciation Rate Adjustments
- C-3.14: Federal and State Income Taxes
- C-3.25: Property Tax Calculation
- C-4: Adjusted Jurisdictional Income Taxes

The Staff Report filed on November 25, 2020, is intended to supersede and replace in its entirety the Staff Report filed on November 18, 2020.

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of	)	
Ohio Power Company for an	)	Case No. 20-585-EL-AIR
Increase in Electric Distribution Rates	)	
In the Matter of the Application of	)	
Ohio Power Company for Tariff	)	Case No. 20-586-EL-ATA
Approval	)	
In the Matter of the Application of	)	
Ohio Power Company for Approval	)	Case No. 20-587-EL-AAM
to Change Accounting Methods	)	

Sam Randazzo, Chairman  
M. Beth Trombold, Commissioner  
Lawrence K. Friedeman, Commissioner  
Dennis P. Deters, Commissioner  
Daniel R. Conway, Commissioner

To the Honorable Commission:

In accordance with the provisions of the Ohio Revised Code Section 4909.19, the Staff of the Public Utilities Commission of Ohio (Staff) has conducted its investigation in the above matter and hereby submits its findings to the Commissioners of the PUCO (Commission) in this Staff Report.

The Staff Report has been jointly prepared by the Staff's Rates and Analysis Department and Service Monitoring and Enforcement Department.

Copies of the Staff Report have been filed with the Docketing Division of the Public Utilities Commission of Ohio (PUCO) and served by certified mail upon the mayors of all affected municipalities and other public officials deemed representative of the service area affected by the application. A copy of this report has also been served upon the utility or its authorized representative. Interested parties are advised that written objections to any portion of the Staff Report must be filed within 30 days of the date of the filing of this

report, after which time the Commission will promptly set this matter for public hearing. Written notice of the time, place, and date of such hearing will be served upon all parties to the proceeding.

The Staff Report is intended to present for the Commission's consideration the results of the Staff's investigation. It does not purport to reflect the views of the Commission nor should any party to the proceeding consider the Commission as bound in any manner by the representations or recommendations. The Staff Report, however, is legally cognizable evidence upon which the Commission may rely in reaching its decision in this matter. (See *Lindsey v. Pub. Util. Comm.*, 111 Ohio St. 6 (1924)).

Respectfully submitted,

PUCO Rates and Analysis Department

A handwritten signature in black ink, appearing to read "Tamara S. Turkenton".

Tamara Turkenton  
Director

PUCO Service Monitoring and Enforcement Department

A handwritten signature in blue ink, appearing to read "R. Fadley".

Robert Fadley  
Director

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## BACKGROUND

The applicant, Ohio Power Company (AEP Ohio, Applicant, or the Company), is a subsidiary of American Electric Power and is the largest of its regional utility divisions. Headquartered in Gahanna, Ohio, with regulatory and external affairs offices in downtown Columbus, Ohio, AEP Ohio serves just over 1.5 million customers in 61 counties.

In Case No. 16-1852-EL-SSO, et al., the Public Utilities Commission of Ohio (PUCO or Commission) modified and approved a stipulation and recommendation (Stipulation) filed by AEP Ohio, Commission Staff (Staff), and numerous other signatory parties, which authorized the Company to implement an electric security plan (ESP) for the period of June 1, 2018, through May 31, 2024.<sup>1</sup> Among the commitments in the Stipulation, AEP Ohio agreed to file a base distribution rate case by June 1, 2020.<sup>2</sup>

On April 9, 2020, AEP Ohio filed a motion to set a test period and date certain for its forthcoming application for an increase in its electric distribution rates. AEP Ohio proposed, pursuant to R.C. 4909.15(C) and Chapter II(A)(5)(a) of the Commission's standard filing requirements (SFR) set forth in Ohio Adm.Code 4901-7-01, Appendix A, to use the 12 months ending November 30, 2020, as the test year for the filing, and December 31, 2019, as the date certain for determining rate base.

On April 29, 2020, AEP Ohio filed a pre-filing notice of its intent to file an application for approval of an increase in its electric distribution rates, tariff modifications, and changes in accounting methods.

By its Entry on May 6, 2020, the Commission approved the requested test period and date certain.

On June 8, 2020, the Company filed its application to increase electric distribution rates. By entry dated July 29, 2020, the Commission ordered that the application be accepted as of June 8, 2020.

In its application, AEP Ohio calculated a revenue deficiency of \$402,086,000 associated with base distribution services. The total base distribution revenue requirement requested is \$1,065,876,000, which included rolling into base rates the remaining capital investments within the Distribution Investment Rider (DIR) and both the capital and operations and maintenance expenses associated with the Enhanced Service Reliability Rider. Additionally, the federal income tax reduction from the Tax Cuts and Jobs Act of 2018 will be included in base rates and not credited through the Tax Savings Credit Rider.

Accounting for the change in riders effected by new base rates, the net total revenue deficiency as calculated by the Company is \$42,280,687; however, the Company designed its base distribution rates, excluding miscellaneous charges, to increase by \$39,233,971. As a result, AEP Ohio's proposed rate calculations produce a total revenue increase, including miscellaneous charges, of \$36,187,919.

### Summary of Staff's Recommendations

As shown on Schedule A-1, the Staff of the PUCO (Staff) recommends a revenue requirement in the range of \$901,428,666 to \$921,950,845. This represents an increase of 36 percent to 39 percent over test year operating revenue. This determination is based on Staff's examination of the accounts and records of the

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<sup>1</sup> See *In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan*, Case No. 16-1852-EL-SSO, Opinion and Order (April 25, 2018).

<sup>2</sup> *Id.* at 123-124.

Applicant for the 12 months ending November 30, 2020, as summarized in this report, including schedules which incorporate Staff's recommended rate of return, rate base, and adjusted operating income.

## **OPERATING INCOME AND RATE BASE**

### **Scope of Investigation**

The scope of the investigation was to determine if the Applicant's filed exhibits concerning test year operating income, rate base and other data are reasonable for ratemaking purposes, and if the financial and statistical records supporting the data can be relied upon. Staff interviewed the Applicant's key management personnel and reviewed both internal and published financial reports to assure understanding of the Applicant's operations and organization. Staff's investigation of test year operating income and date certain rate base included a review of the Applicant's budgeting and forecasting techniques, verification of the operating revenue computation, and an examination of the Applicant's continuing property records. In addition, Staff verified the existence and used and useful nature of the assets through physical inspections. Staff performed other independent analyses it considered necessary.

The Applicant proposed various adjustments to operating income and rate base, as summarized on the Applicant's Schedules. Staff reviewed and analyzed the Applicant's proposed adjustments to operating income and rate base and traced them to supporting workpapers and source data. As a result of its review and analysis, Staff accepted some of the proposed adjustments, changed some of the Applicant's proposed adjustments using alternative approaches, and/or proposed new adjustments. Staff's adjustments make the test year operating income and date certain rate base consistent with sound regulatory accounting practices, more representative of normal operations and appropriate for ratemaking purposes.

The purpose of Staff's investigation was to develop financial data for ratemaking purposes; it was not intended to provide a basis for expressing an opinion on the financial statements of the Company as a whole. The following sections of this report summarize the results of Staff's investigation, which Staff believes are relevant to the determination of test year operating income and rate base. Staff presents these sections in the general order in which the schedules are presented at the end of this document.

### **Revenue Requirement**

Schedule A-1 presents Staff's determination of the Applicant's revenue requirement. Staff's recommended revenue increase to base distribution revenue is shown on Staff's Schedule A-1. This determination is based on the examination of the accounts and records of the Applicant for the twelve months ending November 30, 2020, the test year in this proceeding. The results of Staff's examination are summarized in this report, and the schedules that incorporate Staff's recommended rate of return, rate base, and adjusted test year operating income are included.

Staff removed PUCO and Ohio Consumers Counsel (OCC) assessment fees from the gross revenue conversion factor, as calculated on Staff's Schedule A-2. There is no direct, causal relationship between the revenues collected by a utility and the amount that company is assessed. Additionally, the Company already has PUCO and OCC assessment fees embedded in its test year expenses. Furthermore, Staff removed non-Ohio state income taxes from the gross revenue conversion factor calculation.

## **RATE BASE**

The rate base represents the Applicant's net investment in plant and other assets as of the date certain, December 31, 2019, which were used and useful in providing electric utility service to its customers and upon which its investors are entitled to the opportunity to receive a fair and reasonable rate of return.

Staff's analysis of the rate base is divided into plant-in-service, DIR, depreciation, construction work in progress, working capital, and other rate base items. A comparison of the rate base submitted by the Applicant and Staff's recommendation is shown on Schedule B-1. Schedules B-2 through B-7, provide additional support for Staff's rate base findings.

### **Plant-In-Service**

The plant-in-service, as presented by the Applicant, is the surviving original cost of the plant that is used and useful or projected to be used and useful as of the date certain, in providing electric utility service to its customers. As a result of Staff's investigation and review of the application, Staff recommends that adjustments be made to the Applicant's date certain plant investment for ratemaking purposes. These adjustments are identified below, summarized on Schedule B-2.2, and reflected in the calculation of jurisdiction plant-in-service figures on Schedule B-2.1.

#### Prior Distribution Rate Case Adjustments

The Company did not reflect in the date certain balances of plant-in-service various adjustments that were made in prior rate cases. The total of adjustments results in a lump sum reduction of \$25,138,000. These adjustments are shown on Schedule B-2.2.

#### FERC Account 361 Adjustment

During Staff's review, the Company acknowledged an accrual was reversed incorrectly in the Company's system. Therefore, Staff made an adjustment to correct this error. The adjustment results in a reduction of \$504,884 to Account 361, as shown on Schedule B-2.2.

#### gridSMART Electric Exclusions

Both the Applicant and the Staff adjusted test year plant-in-service gridSMART Phase 2 assets recovered through AEP Ohio's Commission approved gridSMART Phase 2 Rider capital from rate base. The adjustment is \$195,469,487, as shown on Schedule B-2.2.

#### Fitness Equipment Adjustment

Staff has excluded the employee fitness equipment since these facilities are not used and useful in the provision of utility service. This adjustment reduces rate base by \$770,835 and is shown on Schedule B-2.2.

#### Electric Vehicles Charging Stations Adjustment

During its review, Staff found that the Company currently has electric vehicle (EV) chargers installed in four locations that can only be accessed by AEP Ohio personnel. The EV charging stations are, in part, used to charge personal vehicles and the Company has stated in a data request that they have no way of tracking the personal use of the chargers. Staff considers the personal use of these chargers as an employee perk that does not go toward providing utility service to the customer. Therefore, Staff has

disallowed recovery of the EV chargers. This adjustment reduces rate base by \$355,269 and is shown on Schedule B-2.2.

#### Capitalized Incentive Pay Adjustment

As part of the plant-in-service investigation, Staff reviewed capitalized incentive compensation included in Federal Energy Regulatory Commission (FERC) Account 303, Miscellaneous Intangible Plant. Staff avers that the support provided by the Company was insufficient to warrant inclusion in rate base. Staff recommends \$11,520 in adjustments related to the specific transactions for capitalized incentives for which Staff requested additional support during its investigation as shown on Schedule B-2.2.

Staff recommends that starting with the Commission's Opinion and Order in this case and going forward, the Company exclude from rate base all capitalized incentive compensation.

#### Intangible Plant Adjustment

During its review of Intangible Plant, Staff identified multiple expenditures for catered meals provided at Company meetings as well as entertainment-related expenditures, such as the bulk purchase of 300 movie tickets and tickets to a Columbus Blue Jackets game. Additionally, the Company advised Staff that two transactions included amounts that were incorrectly capitalized. Finally, Staff adjusted one transaction consisting of pens and drink tumblers inscribed with the Company's logo, as Staff found it to be inappropriate to include in rate base. Combining all adjustments results in a recommended reduction to FERC Account 303, Miscellaneous Intangible Plant of \$7,899, as shown on Schedule B-2.2.

### **Distribution Investment Rider**

Per the Commission Order in Case No. 16-1852-EL-SSO, upon approval of AEP Ohio's next rate case all plant-in-service being recovered through the DIR as of the date certain will be rolled into rate base and the annual revenue caps for the DIR will be set in a manner consistent with the new rate base.<sup>3</sup> In this Application, AEP Ohio proposed revenue caps for 2021 through 2024 and included several modifications to the DIR calculation.

#### AEP Ohio Proposed Changes

The Company proposes annual revenue caps of \$71 million in 2021, \$117 million in 2022, \$164 million in 2023, and \$211 million in 2024. AEP Ohio also proposes that there be a proration of 1/12 of the 2021 annual revenue cap which commences whenever the rate case rates go into effect in 2021. AEP Ohio states that its proposed annual revenue caps are based upon its projected capital needs. It also states that its proposed annual revenue caps do not include an adjustment for the normalized excess accumulated deferred income taxes (EDIT); that the estimated increase in plant based on the normalized EDIT is already included in its revenue cap calculation and as such it is no longer necessary to exclude that calculation from the cap balance. AEP Ohio states that if the revenue caps are not approved as proposed, the Company would need to continue to exclude the normalized EDIT from the revenue cap calculation.

AEP Ohio proposes to update the DIR calculation with the carry charge component rates to those proposed in its Application.

AEP Ohio also proposes several changes to the calculation of the DIR. First, AEP Ohio proposes the elimination of the offset of the capital revenue requirement for gridSMART Phase I and the monies

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<sup>3</sup> Id. at 18-19.

collected through the Enhanced Service Reliability Rider (ESRR) and the Energy Efficiency & Peak Demand Reduction Rider (EE/PDR) Rider collections. AEP Ohio states that gridSMART Phase I assets will be included in rate base and therefore will no longer be a necessary offset. AEP Ohio also posits that the costs included in the ESRR will be only operations and maintenance (O&M) expenses and as such are not relevant to the DIR. AEP Ohio states that any vegetation capital costs, to the extent there are any, will be included in the DIR.

Although not addressed in the testimony of AEP Ohio witness Moore, her attached proposed DIR calculation sheet, Exhibit AEM-3, page 1 of 2, shows no offsets for “Plant Held for Future Use” and the “Revenue Offset Provided in Distribution Stipulation.” Therefore, Staff’s assumption is that the Company has also proposed to remove the offset for Plant Held for Future use and the revenue offset caused by the previous base rate case.

AEP Ohio proposed an adjustment for the Theoretical Reserve Amortization. AEP Ohio states that the test year of the base case includes the amortization of a current theoretical reserve which has the impact of lowering depreciation expense during the test year. Therefore, upon the expiration of the theoretical reserve provided for in Case No. 16-1852-EL-SSO, the amortization amount included in the test year, \$23,726,170 (as found in Appendix A of the Stipulation filed in Case No. 16-1852-EL-SSO) will be included as additional revenue requirement through the DIR. After the test year in this case is established, the theoretical reserve amortization will increase by \$21,451,689 beginning on June 1, 2021 and ending May 31, 2023. Once the remaining three years of the meter amortization is complete the Company is proposing to increase the DIR revenue requirement by \$23,726,170 in June of 2023.

Lastly, the Company has proposed a separate revenue cap calculation section which it states is needed to avoid an under recovery of its DIR revenue requirement, up to the authorized annual revenue cap. AEP Ohio proposes a separate cap calculation section that is not linked in the DIR workbook that can be analyzed during the quarterly filings for accuracy.

#### Staff Recommendations

Staff will address the numerous proposed changes to the DIR in the order in which they have been summarized above.

Staff recommends the Commission not adopt AEP Ohio’s proposed annual revenue caps. Staff recommends that the Commission adopt the following annual revenue caps: \$57 million for 2021 (prorated for whenever new base distribution rates go into effect), \$78 million for 2022, \$96 million for 2023, \$46 million for the first five months of 2024, and \$0 after May 31, 2024 (the end date of AEP Ohio’s current SSO). First, Staff notes that AEP Ohio’s recommended revenue cap percentage of base distribution rates is in excess of the Commission’s previously stated maximum growth rate of 3% to 4%. Second, Staff’s DIR revenue cap recommendation is based upon its assessment that AEP Ohio has not demonstrated through the Application or its responses to data requests how the Asset Renewal and Reliability programs have maintained or improved reliability. Without a quantifiable demonstration of past or future benefits to customers, Staff recommends reducing these programs to zero. Staff recommends continuing the nondiscretionary programs (Major Projects, Customer, City and State Requirements and other work associated with the integration of new service to new residential and commercial customers, including the necessary transformers and meters, as well as outage restoration, and inspections). Because Staff’s annual revenue caps are based on AEP Ohio’s desired capital spend, albeit not the entirety of its proposed

distribution capital expenditures, there does not need to be an exclusion of the normalized EDIT from the cap calculation.

Staff recommends the DIR calculation with the carry charge rate components proposed by Staff in this Staff Report.

Staff recommends that the Commission continue the general requirement for the removal of all capital costs that are recovered elsewhere by AEP Ohio and that those capital costs be separately detailed in the quarterly DIR filings so that it can be confirmed that they are being removed from the DIR revenue requirement.

AEP Ohio proposes the elimination of the EE/PDR as an offset to the DIR calculation. Staff does not oppose this change to the DIR calculation so long as the EE/PDR is terminated by the Commission. To the extent the EE/PDR Rider is not terminated, or capital costs associated with these type of expenditures are allowed to be recovered by the Company in some manner (other than in rate base established in this case), any capital expenditures regarding these types of costs, should be required to be explicitly reported in the DIR calculation as an offset and the expenditures detailed in supporting documentation.

AEP Ohio also proposes the removal of the vegetation management rider offset to the DIR calculation as no capital costs are to be recovered in its proposed vegetation management rider. AEP Ohio states that capital vegetation costs, if any, would be recovered in the DIR. Staff is not opposed to this proposal to eliminate the vegetation management offset to the DIR revenue requirement so long as the vegetation rider is recovering only O&M expenditures. However, in order to ensure that Staff can meaningfully track any vegetation capital costs that may be proposed for recovery in the DIR, Staff recommends that all capitalized vegetation activity be separately reported in the DIR quarterly filings so that Staff can enforce the parameters around which capital costs are being proposed for recovery in the DIR. As of the order in this case, pursuant to the Stipulation and Commission Order in Case No 18-230-EL-RDR,<sup>4</sup> the only vegetation capital costs that may be included for recovery in the DIR are those associated with the establishment of right of way (ROW) or the establishment of an expanded ROW.

AEP Ohio also proposes the removal of the gridSMART Phase 1 recovery offset in the DIR because gridSMART Phase 1 assets are being included in base rates. Staff does not oppose this recommendation. With the elimination of the gridSMART Phase 1 assets from the DIR, only distribution costs as recorded in Accounts 360 to 374 are eligible for recovery in the DIR.

The Company has also proposed the elimination of Plant Held for Future Use and the revenue offset from the previous distribution rate case. Staff does not oppose the removal of the revenue offset generated by the previous distribution rate case. However, Staff does oppose the proposed elimination of the Plant Held for Future Use offset. The DIR is specifically limited to recovering only plant that is in service.

AEP Ohio proposes to add an adjustment for the theoretical adjustment provided for in Case No. 16-1852-EL-SSO.<sup>5</sup> Staff does not oppose AEP Ohio's proposed change to the DIR calculation. The Company's

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<sup>4</sup> See *In the Matter of the 2017 Review of the Distribution Investment Rider Contained in the Tariff of Ohio Power Company*, Case No. 18-230-EL-RDR, et al., Opinion and Order (June 17, 2020).

<sup>5</sup> See *In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan*, Case No. 16-1852-EL-SSO, Opinion and Order at 19 (April 25, 2018).

proposal acknowledges that the test year of the base case includes the amortization of the current theoretical reserve. It also addresses the commitment made in Case No. 16-1852-EL-SSO regarding the need to amortize the remainder of the theoretical reserve provided for in that case. The annual meter amortization of \$21,451,689 provided for in Case No. 16-1852-EL-SSO will be an offset to the DIR annual revenue requirement until it is completed. Thereafter, beginning June 2023, due to the inclusion of the theoretical reserve amortization in rate base, there will be a charge to the DIR revenue requirement of \$23,726,170 beginning June 1, 2023. The Staff recommends that the Commission direct AEP Ohio to continue to provide a theoretical reserve study annually.

There are several concerns associated with AEP Ohio's annual revenue cap verification concept that lead Staff to recommend against the Commission's adoption of AEP Ohio's proposal. First, the Company indicates that the proposed separate cap calculation work sheet is not linked to the DIR and is only meant to avoid unintended under-recoveries. However, the results of the work sheet do impact the DIR calculation. As shown on Witness Moore's Exhibit AEM-3, page 1 of 2, a substantive change in the DIR calculation would be occurring because the result of the annual verification work sheet would take the line item place of the previous annual revenue cap control. In addition, AEP Ohio does not explain how it is to effectuate this calculation. The Company indicates that it would adjust its revenue requirement in the last three months of the year to exactly generate the DIR revenue requirement. From Staff's examination of AEP Ohio's explanation of how its proposal would be effectuated, AEP Ohio's proposal does not appear to comport with the filing dates, effective dates, or dates certain associated with the DIR. Such mechanical issues may effectively cause an over recovery of the DIR if the proposed cap calculation work sheet is approved. Furthermore, the DIR calculation already contains mechanisms to address under recoveries. Finally, the Order in Case No. 16-1852-EL-SSO indicated that the annual revenue caps would be re-established in accordance with the new rate base, not that the DIR mechanism itself would be changed. Because a separate calculation work sheet is not "linked" to the current DIR calculation work sheets does not mean that a substantive change to the calculation of the DIR has not occurred. While Staff has not objected to several of AEP Ohio's other proposed changes to the DIR, it is because those changes have been necessitated due to the adjustments in the rate case itself. Nothing occurring as a result of the rate case has generated a need for this proposed changed to the DIR calculation.

## **Depreciation**

Depreciation is the process which distributes the original cost of depreciation assets, adjusted for net salvage, over the normal life of the property in a systematic and rational manner. Staff's investigation of depreciation is segregated into two areas: (1) Depreciation Reserve, and (2) Depreciation Accrual Rates and Depreciation Expense. Each of these areas is discussed in detail in the following sections.

### Depreciation Reserve

The Applicant maintains its depreciation reserve, by account, on a total company basis. In order to determine if the Applicant's booked reserve for depreciation is proper and adequate, Staff compared the Applicant's book reserve with a calculated theoretical reserve, as a guide to whether past accrual rate calculations have been appropriate. Staff compared the Applicant's book reserve level with a calculated theoretical reserve, based on the accrual rates discussed below, and the Applicant's December 31, 2019



projected plant balances. Staff determined that the level of the overall booked reserve is in close agreement with the theoretical reserve calculation.

Staff adjusted the reserve to exclude the reserve associated with adjustments in the Plant in Service section, as discussed above. These adjustments are shown on Schedule B-3.1.

Staff recommends that the jurisdictional reserve for depreciation, as adjusted by Staff and shown on Schedule B-3, is proper and adequate and should be used for the purposes of this proceeding.

#### Depreciation Accrual Rates and Depreciation Expense

The Applicant's current depreciation accrual rates were prescribed by the Commission in Case No. 13-2385-EL-SSO.

The Applicant filed a depreciation study for the Company's distribution and general plant accounts. Staff conducted an independent analysis of the depreciation study provided by the Applicant. Staff's recommended accrual rates are shown on Schedule B-3.2. Staff recommends that the Applicant be ordered to use the accrual rates shown on Schedule B-3.2 for book depreciation purposes, effective concurrently with the customer rates from this proceeding.

Staff has long maintained that depreciation accrual rates should be thoroughly reviewed every three to five years. Staff, therefore, recommends that within five years after the Commission's Opinion and Order in this proceeding, the Applicant's accrual rates be reviewed for all its plant accounts.

The Staff's calculation of depreciation expense is based on the adjusted jurisdictional plant in service balances at date certain and the accrual rates discussed above, is shown on Schedule B-3.2

### **Construction Work In Progress (CWIP)**

The Applicant did not request an allowance for CWIP in its filing and Staff, as shown on Schedule B-4, did not recommend an allowance.

### **Working Capital**

Working capital has been generally defined as the average amount of capital provided by investors in the Company, over and above the investments in plant and other specifically identified rate base items, to bridge the gap between the time that expenditures are required to provide service and the time collections are received for the service. The Applicant requested a working capital allowance of \$15,329,641 based on a thirteen-month average balance for materials & supplies and prepayments. The Applicant did not prepare a lead/lag study for this case; therefore, Staff cannot recommend a working capital allowance, which is consistent with Staff's treatment in prior cases.<sup>6</sup>

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<sup>6</sup> See, e.g., *In the Matter of the Application of the Cincinnati Gas and Electric Co. for an increase in Electric Rates in its Service Area*, Case No. 91-410-EL-AIR, Opinion and Order at 32 (May 12, 1992); see also *In the Matter of the Application of Ohio Edison Co. for Authority to Change Certain of its Filed Schedules Fixing Rates and Charges for Electric Service*, Case No. 89-1001-EL-AIR, Opinion and Order at 23 (Aug. 16, 1990); see also *In the Matter of the Application of Ohio Edison Co. for Authority to Change Certain of its Filed Schedules Fixing Rates and Charges for Electric Service*, Case No. 87-689-EL-AIR, Opinion and Order at 22 (Jan. 26, 1988)

## **Other Rate Base Items**

In its Application, the Company requested the inclusion in rate base of the jurisdictional balance of \$165,161,117 attributable to its prepaid pension asset. A prepaid pension asset represents the amount by which cumulative contributions to the pension plan exceed the cumulative pension cost. As part of its investigation, Staff requested that the Company quantify the effects on pension expense associated with overfunding the plan given that the investment gains on pension plan assets reduce pension expense.<sup>7</sup> The Company did not quantify the reduction in pension expense attributable to the excess contributions. Additionally, Staff requested that the Company provide support for the direct and indirect benefits resulting from overfunding the pension plan. Staff avers that the benefits identified, in aggregate, did not sufficiently justify the inclusion of the prepaid pension asset in rate base, upon which the Company would earn a return. Therefore, Staff removed the prepaid pension asset from Other Rate Base Items, reducing rate base by \$165,161,117, as shown on Schedule B-6.

## **Allocations**

Staff reviewed the Company's jurisdictional allocation factors which were based on the relationship reflected in the functional books and records for the twelve months ending December 31, 2019. Staff examined the Company's most recent Cost Allocation Manual, the Company's internal allocation audit reports, and the FERC's most recent audit report on the Company's internal allocations. Staff does not recommend any adjustments to Schedule B-7.

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<sup>7</sup> See response to PUCO-DR-03-014

## **OPERATING INCOME**

The Applicant's test year operating income combined one month of actual data for the period December 1, 2019 through December 31, 2019, with eleven months of forecasted data for the period January 1, 2020 through November 30, 2020. Staff conducted a review of the Applicant's budgeting process to ensure that the forecasted data used in formulating the test year operating income is commensurate with the projections contained in the Applicant's control budget. Staff verified that the test year projected figures comport with the control budget and, as described in the subsequent section on Current Adjustments, Staff adjusted the Applicant's test year operating income as required to render it an appropriate basis for setting rates.

Staff's pro forma operating income is Staff's adjusted test year operating income modified to reflect the Applicant's proposed increase in revenues and the associated increases in commercial activities taxes, state and municipal taxes, and federal income taxes. Staff's pro forma operating income also includes the Applicant's proposed increase in other revenues related to reconnection charges.

Schedules C-1 and C-2 present Staff's determination of operating income. The calculations, methodologies, and rationale used to develop Staff's adjusted pro forma operating income are detailed on Schedules A1.1, C-1, C-3.1 through C-3.33, and C-4.

### **Pro Forma Adjustments**

Schedule C-1 sets forth the Applicant's proposed increase in operating revenues and affected expenses that include commercial activities taxes, state and municipal taxes, and federal income taxes. The increase in revenues is the combined result of the increase in base revenues created by the Applicant's proposed tariffs, and an increase for reconnection charges.

### **Current Adjustments**

#### Universal Service Fund

Staff accepted the Company's methodology to compute adjusted test year operating income to eliminate revenues and corresponding expenses for the Universal Service Fund Rider in order to conform to standard practice of removing rider revenues and expenses from base rates. This flow through adjustment increases test year operating income by \$24,902,513, as shown on Schedule C-3.1.

#### kWh Tax Rider

Staff accepted the Company's methodology to compute adjusted test year operating income to eliminate revenues and corresponding expenses for the kWh Tax Rider in order to conform to standard practice of removing rider revenues and expenses from base rates. This flow through adjustment increases test year operating income by \$546,164, as shown on Schedule C-3.2.

#### Energy Efficiency & Peak Demand Reduction Rider

Staff accepted the Company's methodology to compute adjusted test year operating income to eliminate revenues and corresponding expenses for the EE/PDR Rider in order to conform to standard practice of removing rider revenues and expenses from base rates. This flow through adjustment decreases test year operating income by \$216,120, as shown on Schedule C-3.3.

Staff has accepted the Company's proposal to remove these expenses, however, this does not guarantee recovery through the EE/PDR rider. The prudence, validity, and audit of these expenses will be addressed through the EE/PDR rider true-up mechanism.

#### Economic Development Recovery Rider

Staff accepted the Company's methodology to compute adjusted test year operating income to eliminate revenues and corresponding expenses for the Economic Development Recovery (EDR) Rider in order to conform to standard practice of removing rider revenues and expenses from base rates. This flow through adjustment increases test year operating income by \$4,371,319, as shown on Schedule C-3.4.

#### Enhanced Service Reliability Rider

Staff accepted the Company's methodology in which operating income was adjusted to remove the effects of the ESRR using one month actual and eleven months projected data. These adjustments are shown on schedule C-3.5.

#### Adjust Incentive Compensation

Staff adjusted test year incentive compensation by removing all adjustments on this schedule. Staff removed all incentive compensation in Schedule C-3.7 and therefore any adjustments in this section were not necessary.

#### Annualize Labor & Payroll Taxes

Staff adjusted test year payroll expense by annualizing direct AEP Ohio's labor expense based on actual employee levels and average hourly rates as of August 2020. Staff removed incentive compensation based on earnings per share (EPS) and restricted stock for both AEP Ohio's labor expense and AEP service company employees. Staff's adjustments reduce the test year labor expense by \$17,576,390, as shown on Schedule C-3.7.

Staff adjusted test year payroll tax expenses by annualizing actual payroll tax as of August 2020. Staff's adjustment reduces the test year payroll tax expenses by \$1,428,303, as shown on Schedule C-3.7.

#### Energy Efficiency & Peak Demand Reduction Labor

As proposed in the Demand Side Management (DSM) Plan, the Company proposed to include an additional \$5,141,732 for internal labor costs in the test year operating income, of which, approximately \$4.2 million is estimated to support the DSM Plan. However, Staff disagrees with the Company's inclusion of energy efficiency labor, DSM labor, and any other miscellaneous expenses included in the test year and has removed \$5,141,732 from the test year operating income, as shown on Schedule C-3.8.

#### Annualize Pension Expense

Staff adjusted test year pension expenses by annualizing actual pension expenses as of August 2020. Staff's adjustment reduces the test year pension expenses by \$134,674, as shown on Schedule C-3.9.

#### Annualize OPEB Expense

Staff adjusted test year OPEB expenses by annualizing actual OPEB expenses as of August 2020. Staff's adjustment reduces the test year OPEB expenses by \$2,927,453, as shown on Schedule C-3.10.

#### Amortize Rate Case Expense

Both Staff and the Applicant adjusted rate case expense to reflect a five-year amortization period. The adjustment increases test year expenses by \$65,000, as shown on Schedule C-3.11.

Staff recommends that the Commission review the most recent updated information regarding the Applicant's rate case expense before issuing its final Opinion and Order. The Applicant should submit this information as a late filed exhibit.

#### Annualize Depreciation Expense

Staff adjusted the depreciation expense to reflect Staff's recommended depreciable plant in service as of the date certain and Staff's recommended accrual rates. This adjustment is presented on Schedule C-3.12, with the supporting calculations shown on Schedule B-3.2. Further discussion on depreciation can be found in the Rate Base section of this report.

#### Depreciation Rate Adjustment

Both Staff and the Applicant adjusted depreciation expense at current approved rates to proposed depreciation study rates based on date certain plant balances as of December 31, 2019. This adjustment is presented on Schedule C-3.13, with the supporting calculations shown on Schedule B-3.2. Further discussion on depreciation can be found in the Rate Base section of this report.

#### Federal & State Income Taxes

Staff adjusted income tax expense on Schedule C-3.14 in order to reconcile the test year income tax expense with the income tax expense calculated on Schedule C-4. Staff's adjustment reduces test year operating expenses by \$65,215,334, as shown on Schedule C-3.14.

#### gridSMART Rider

Staff increased the amount removed from test year operating income in order to eliminate the effect of the gridSMART rider. Staff's adjustment reflects removal of severance expense currently being recovered through the gridSMART rider, reduces test year expenses by \$71,880, as shown on Schedule C-3.15.

#### Distribution Investment Rider

Staff accepted the Company's methodology to compute adjusted test year operating income to eliminate revenues and corresponding expenses for the DIR in order to conform to standard practice of removing rider revenues and expenses from base rates. This flow through adjustment decreases test year operating income by \$242,341,365, as shown on Schedule C-3.16.

#### Remove Effect of Pilot Throughput Balancing Adjustment Rider

The Company and Staff adjusted distribution test year revenues in order to remove the effect of the Pilot Throughput Balancing Adjustment Rider (PTBAR) amortization and deferral. This adjustment decreases test year operating income by \$13,639,000, as shown on Schedule C-3.17.

#### Storm Expense Adjustment

Staff and the Applicant utilized a five-year average to adjust the test year expense related to major storms in Account 593. Staff's adjustment reduces test year expenses by \$1,779,322, as shown on Schedule C-3.18.

Regarding non-major storm expenses, the Applicant proposes a test year expense level of \$2.291 million, which is based on a five-year average of operation and maintenance costs attributable to non-major

storms. In its Application, the Company has requested to defer as a regulatory asset any costs for which the annual spending exceeds this amount. Staff recommends denial of this proposal. Staff finds it inappropriate to preemptively grant broad deferral authority, and instead recommends that the Company file an Application to Change Accounting Methods (AAM) in any year the Company finds it necessary to request deferral of non-major storm expenses in excess of the amount included in the test year.

#### Remove Effects of the Tax Savings Credit Rider

Both Staff and the Applicant adjusted test year income tax expense to remove the effects of the Tax Savings Credit Rider. The adjustment reduces test year expenses by \$33,946,004, as shown on Schedule C-3.19.

#### Smart City Rider

Both Staff and the Applicant adjusted test year income revenue and expense to remove the effects of the Smart City Rider. The adjustment reduces test year expenses by \$5,159,000, as shown on Schedule C-3.20.

#### To Include Credit Card Processing Fees in the Test Year

The Company adjusted distribution test year expenses to include credit card processing fees of \$3,102,000 in the test year. The Company further proposed to include any additional fees above the amount embedded in base rates to be included in the Bad Debt Rider. Staff does not support the inclusion of credit card processing fees within base rates or within the uncollectible expense rider. Staff's adjustment to exclude credit card processing fees decreases test year operating expenses by \$3,102,000, as shown on Schedule C-3.21.

#### Demand Side Management

The Company has requested to include \$40,261,000 in the test year to include forecasted customer assistance and supervision expenses associated with the implementation of the DSM Plan. This amount is derived from 12-months of forecasted DSM Plan program costs in the amount of \$36.6 million and a ten percent administration fee in the amount of \$3.66 million, which is further described below. Staff rejects including the DSM Plan in base rates and has removed \$40,261,000 from the test year operating income, as shown on Schedule C-3.22.

As explained in the filing, the costs associated with the DSM Plan and administration fee would be included in the test year and incorporated into the distribution rates. However, if the Company spends less than the budgeted program costs for the year, then the difference would be credited to the EDR rider.

The Company also proposed a program administration fee associated with the DSM Plan, which would allow the Company to earn 10% of the program year spend, if the spending was cost-effective at the program level and overall, using the Resource Value Test ("RVT") test.<sup>8</sup> The RVT value can be calculated by taking the sum of the present values of both the avoided costs and non-energy benefits and dividing by the sum of the present values of both the administrative costs and incentive costs. Finally, for eligible EE resources, the Company plans to bid those resources into PJM Interconnection, L.L.C.'s (PJM) base residual auction (BRA) and use 80% of the revenues to increase the DSM plan budget or offset expenses and retain the other 20%.

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<sup>8</sup> Direct Testimony of Jon F. Williams, Exhibit JFW-1, VI., Cost-Benefit Analysis, Case No. 20-585-EL-AIR (June 15, 2020).

Staff recommends that the Commission deny the Company's request to include the DSM plan costs on Schedule C-3.22, as proposed, and recommends an adjustment to decrease the test year expenses by \$40,261,000 to eliminate DSM Plan expenses. While Staff is generally supportive of energy efficiency and demand side management programs that furthers state policies as defined in R.C. 4928.02, there are concerns about the proposal in the current application. Specifically, Staff believes that the framework for the DSM plan puts unnecessary risk on rate payers for several reasons, which include, but are not limited to the following:

1. The Company would be guaranteed recovery of these expenses through distribution rates until the next rate case. However, the ability to credit (refund) customers for reduced expenses, (i.e. if the Company is under budget or chooses to eliminate programs all together), is contingent upon the availability of the EDR.
2. There is current legislative uncertainty surrounding the potential repeal of H.B. 6, which seems to make it impractical to include an EE/PDR investment of this magnitude in base rates, at this time.

Regardless of the cost recovery structure, Staff recommends that the Commission eliminate the proposed \$3.66 million included for the administration fee. The Commission has recently provided guidance that shared savings mechanisms are not necessary because there's no statutory basis and there is no need to incentivize the Company to implement these programs to ensure reliability.<sup>9</sup> Further, the DSM plan is projected to achieve an RVT value (the basis for the proposed administration fee) of 3.0 – meaning that the benefits are forecasted to be three times greater than the costs – which seems to indicate that it is relatively easy for the Company to achieve cost-effectiveness, without additional financial motivation.

In Staff's opinion, the same Entry addressing shared savings mechanisms also suggests that the retail market should be offering EE/DSM programs, so that customers can choose their desired products and services. Alternatively, a utility could offer programs for customers who elect to stay on the standard service offer, for which the associated costs could be recovered on a by-passable basis. The Company has not demonstrated that the retail market is unable to offer the types of products and services include in the current Application.

Finally, the Company has not demonstrated enough rationale to justify retaining twenty percent of PJM revenues related to bidding DSM plan resources into PJM's base residual auction. The Company stated that retaining these revenues would be necessary to offset risks associated with participating in the market, however, the Company has not incurred any financial penalties for non-performance, to date.<sup>10</sup>

#### Communication Plan Expense

As part of the Application, the Company proposed to recover as part of test year expenses, an additional \$1 million for communication with customers for reliability, safety, service, bill understanding and general customer communications (Communication Plan). The \$1 million is incremental to the \$452,000 currently included in the test year for funding to support communications. The Communication Plan includes funding for an external contractor who assists with creative design, video production/editing, research, media training, direct marketing and special event coordination. The Company seeks to increase the use

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<sup>9</sup> See *In the Matter of the Application of Duke Energy Ohio, Inc., for Approval of its 2021 Energy Efficiency and Demand Side Management Portfolio of Programs and Cost Recovery Mechanism*, Case Nos. 20-1013-EL-POR, et al., Entry at 3 (June 17, 2020)

<sup>10</sup> See Company response to PUCO-DR-09-027(I.b) & PUCO-DR-40-099(A)

of external contractors in its outreach and awareness programs. The Company's new request is to fund third party purchased content, a monthly newsletter managed by a third party, community outreach, support for a live line trailer exhibit, customer satisfaction surveys, a blog, focus groups, roundtables for major accounts, and more third party support contracts.

Staff recommends that the additional \$1 million for third party outreach activities and social media be rejected. Although many of the proposed outreach activities may provide customers with useful information, none of the activities are necessary for the provision of electricity or to satisfy a regulatory requirement. This adjustment decreases test year operating expenses by \$1,000,000, as shown on Schedule C-3.23.

#### Adjust Miscellaneous Bad Debt Expense

The Company and Staff adjusted bad debt expense based on the 12-month rolling average write-offs. This adjustment increases test year operating expenses by \$789,014, as shown on Schedule C-3.24.

#### Property Taxes

Staff adjusted property tax expense to reflect the latest known actual rates and valuation percentages and applied those rates and percentages to plant in service as of date certain. In addition, Staff removed West Virginia property tax expense that was included in the applicant's test year property tax expense. Staff's adjustment decreases property tax expense by \$16,731,751 as shown on Schedule C-3.25.

#### Revenue Adjustment

Both the Staff and the Applicant adjusted base revenues to eliminate all rider revenue. The Staff and the Applicant also adjusted test year base revenues to the amounts calculated on Schedule E-4.

In addition, the Staff adjusted test year revenue to reflect actual customer bills for the months of the test year, January 1, 2020, through July 31, 2020. Staff adjusted the customer bills for all tariffs except for outdoor and street lighting. Staff recommends updating customer bills to actuals because of the PTBAR and how the PTBAR is calculated in future years following a rate case. Future PTBAR filings will compare test year customer bills to actual customer bills and if customer bills are not updated in the current base rate case the initial PTBAR filing will be under recovered. Staff's adjustments increase test year operating revenue by \$923,544, as shown on Schedule C-3.26.

#### Miscellaneous Revenue Adjustment

Staff adjusted the test year miscellaneous revenue in order to account for the Company's proposed changes to miscellaneous charges as reflected in WP E-1 a-h and Staff's projected increases or decreases in the number of instances related to various cost-based services the utilities provide. Staff's adjustments decrease test year operating revenue by \$3,399,650, as shown on Schedule C-3.27.

#### Residential Late Fees

Staff adjusted the test year miscellaneous revenues in order to recognize residential late payment revenue within the test year. The Company proposed including all residential late payment revenue the uncollectible expense rider in lieu of building a forecasted amount into base rates. Staff's adjustment increases test year operating revenue by \$3,160,407, as shown on Schedule C-3.28.



#### Out of Period Expense Adjustment

Staff adjusted rate case expenses to remove costs that were incurred outside of the test year period. The adjustment decreases test year expenses by \$4,083,082, as shown on Schedule C-3.29.

#### Promotional Advertising

During its investigation, Staff identified expenses for advertising that is promotional in nature. Since the advertising is not of an informational or instructional character that is geared toward educating ratepayers, Staff determined that the expenses are not appropriate for recovery. Therefore, Staff removed the costs from test year expenses. The adjustment decreases test year expenses by \$131,711, as shown on Schedule C-3.30.

#### Miscellaneous Expense Adjustment

During its investigation, Staff identified various expenses that it determined were inappropriate to include for ratemaking purposes. Therefore, Staff removed these items from the test year. The adjustment decreases expenses by \$14,172, as shown on Schedule C-3.31.

#### Pole Attachment Rates

Staff adjusted operating revenues to reflect Staff's recommended pole attachment rate consistent with Staff's recommendation in the Rates and Tariff section of this report. Staff's adjustment decreases test year revenue by \$144,837, as shown on Schedule C-3.32.

#### Enhanced Service Reliability Rider Baseline

Staff adjusted test year operating expenses in order to shift a portion of vegetation management expenses from base rates into the Company's ESRR. Staff's adjustment decreases test year operating expenses by \$10,000,000, as described in the Rates and Tariff section of the Staff Report and as shown on Schedule C-3.33.

#### Jurisdictional Income Taxes

On Schedule C-4, Staff adjusted federal, state, and local taxes based on the method typically used in rate cases. This method is a formulaic approach in which current tax expense is calculated based on test year revenues and expenses, and deferred tax expense is calculated based on temporary differences in the test year related to book/tax timing differences. Additionally, in accordance with the method typically used in rate cases, Staff calculated deductible interest expense as the weighted cost of debt multiplied by rate base. Staff further adjusted tax expense remove non-Ohio income taxes from the calculation of state and local tax expense.

Staff adjusted income tax expense on Schedule C-3.14 in order to reconcile the test year income tax expense with the income tax expense calculated on Schedule C-4.

## RATE OF RETURN

The Staff recommends a rate of return in the range of 7.15 percent and 7.70 percent. The recommended rate of return was developed using a cost of capital approach which reflects a market-derived cost of equity and AEP Ohio's actual cost of debt.

### Capital Structure

AEP Ohio is a wholly owned subsidiary of AEP, Inc., which is a utility holding company that is publicly traded. Staff used the capital structure of AEP Ohio which is 45.57 percent debt and 54.43 percent equity.

### Cost of Long-Term Debt

Staff used the embedded cost of long-term debt of AEP Ohio as of December 31, 2019, as shown on the Applicant's Schedule D-3A. AEP Ohio's embedded cost of long-term debt is 5.22 percent.

### Cost of Equity

Staff used Value Line, Inc.'s (Value Line) Stock Screener tool to compile a list of comparable companies to use as a proxy group for the purpose of calculating a cost of equity estimate. Staff's initial criteria for the Stock Screener was industry type. Value Line provided a group of 39 companies that met the criteria of being an electric utility. Staff compiled a Safety Rank<sup>11</sup>, Financial Strength Rating<sup>12</sup>, and beta<sup>13</sup> values from Value Line for each of the 39 companies designated as electric utilities. Staff then considered credit ratings from Moody's Investors Service, Inc. and Standard and Poor's Financial Services LLC. Staff also considered market capitalization for the peer group when making final selections. As shown in the table below, in addition to AEP, Inc., Staff selected NextEra Energy, Inc., Consolidated Edison, Inc., WEC Energy Group, and Xcel Energy, Inc. to use as the peer group (Peer Group).

Company Name	Ticker	Industry	Safety™	Financial Strength Rating	Value Line Beta	Moody's	S&P	Market Cap as of 9/9/20 (\$ Bil)
NextEra Energy, Inc.	NEE	Electric Utilities	1	A+	0.85	Baa1	A-	\$ 140.358
AEP, Inc.	AEP	Electric Utilities	1	A+	0.75	Baa2	A-	\$ 40.482
Consolidated Edison, Inc.	ED	Electric Utilities	1	A+	0.75	Baa2	A-	\$ 24.662
WEC Energy Group	WEC	Electric Utilities	1	A+	0.8	Baa1	A-	\$ 31.137
Xcel Energy, Inc.	XEL	Electric Utilities	1	A+	0.75	Baa1	A-	\$ 37.347

<sup>11</sup> Value Line's Safety Rank measures the total risk of a stock relative to the approximately 1,700 other stocks covered by the Value Line Investment Survey.

<sup>12</sup> Value Line classifies 1,700 companies' Financial Strength ratings from A++ to C, in nine steps. The lowest grade is reserved for companies experiencing serious financial difficulty. Balance sheet leverage, business risk, the level and direction of profits, cash flow, earned returns, cash, corporate size, and stock price, all contribute to a company's relative position on the scale. The amount of cash on hand, net of debt, is also an important consideration.

<sup>13</sup> Beta is a measure of the volatility of a security or portfolio compared to the market.

Staff employed a cost of equity estimate for the Peer Group that used the capital asset pricing model (CAPM) and the discounted cash flow (DCF) model. In addition, Staff reviewed recent experienced returns by the utilities industry and recently authorized returns for electric utilities by other utility commissions.

Staff used the following formula to calculate the CAPM cost of common equity estimate:

$$CAPM = Risk\text{-}Free\ Rate + Beta * (Equity\ Risk\ Premium)$$

In making this calculation, Staff used a composite beta of 0.78, which was an average of the betas sourced from Value Line for the Peer Group. In calculating an Equity Risk Premium, Staff reviewed annual market returns associated with the S&P 500 index and the corresponding average long-term composite yield for U.S. Treasury Bonds for the past 30 years. For the time period between 1990 and 2019, the S&P 500 provided an arithmetic average return of 11.47 percent. During the same period, long-term U.S. Treasury Bonds had an average yield of 4.95 percent. Accordingly, Staff calculates the equity risk premium to be 6.52 percent (11.47 percent less 4.95 percent). Due to the recent drop in yields for U.S. Treasuries to historically low levels, Staff chose to use a “normalized” risk-free rate of 2.5 percent as published and recommended by Duff and Phelps.<sup>14</sup> The factors as detailed above produce the following calculation:

$$7.59 = 2.50 + (0.78 * 6.52)^{15}$$

In calculating its DCF cost of common equity estimate for each company in the Peer Group, Staff used the average stock price, the sum of the last four quarterly dividends, and estimates of the expected growth rate of earnings. The average stock price was determined by averaging the adjusted daily closing price for the period from September 3, 2019 through August 28, 2020. The DCF model assumes that earnings growth and dividends growth are the same. Staff averaged earnings per share growth estimates from Yahoo Finance, Reuters, and Value Line to determine DCF growth estimates for each company in the Peer Group. The Value Line average incorporates both the explicit long-range earnings estimate shown in the boxed area of investor sheets and the implicit continuous growth rate calculated from the estimates of earnings per share. For its determination of DCF cost of equity, Staff assumed a non-constant DCF growth rate. Staff assumed dividends grow at a rate derived from financial analysts' growth estimates for the first five years (i.e., long-term growth rate). Staff's DCF growth estimates were used for the first five years, as they are averages of estimates from various investor news services. From the twenty-fifth year on, the growth rate was assumed to equal the long-term growth rate in Gross National Product (GNP). For the sixth through twenty-fourth years, assumed dividend growth rates changed incrementally from the average growth used in the first five years towards the GNP rate in a linear fashion. The long-term growth rate in GNP was the average annual change in GNP from the U.S. Department of Commerce for 1929 through 2019.<sup>16</sup> Based on long-term GNP growth, the respective Company DCF growth estimate and dividend, a stream of annual dividends was calculated. Staff used the internal rate of return derived from

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<sup>14</sup> Duff and Phelps, *Table: Equity Risk Premium and Risk-free Rates*, <https://www.duffandphelps.com/-/media/assets/pdfs/publications/articles/dp-erp-rf-table-2020.pdf?la=en&hash=CEC22C0DD9928B72337F9B7E7536C753B0513063>

<sup>15</sup> See Staff Schedule D-1.3

<sup>16</sup> See Staff Schedule D-1.10

the dividend stream and the stock price for its non-constant growth DCF cost of equity estimate. The Peer Group's non-constant DCF cost of equity estimates average 9.03 percent.<sup>17</sup>

Staff also considered comparable returns being earned by a larger group of utilities that included both Peer Group and non-Peer Group utilities as an additional proxy for equity cost estimates. In doing so, Staff reviewed a group of utility holding companies that are included in the SPDR Select Sector Fund – Utility (XLU). Staff observed the earned returns on equity (ROE) achieved in 2019 by each of the companies in the XLU. The overall earned return for the group was 10.35 percent.<sup>18</sup> In addition, Staff reviewed the recent ROEs granted in rate case decisions decided in 2020 by other state public utilities commissions. According to S&P Global Marketplace Intelligence, utility rate case decisions in 2020 for electric utilities have resulted in an average authorized ROE of 9.50 percent. As shown on Staff Schedule D-1.12, Staff arrived at this calculation by averaging only the second and third quartiles in order to remove the impacts of outlier data points.

**ROE Summary**

CAPM	7.59%
DCF	9.03%
2019 Earned ROEs by Utility Group	10.35%
2020 Rate Case ROE Decisions	9.50%
Total Average	<b>9.12%</b>

Staff averaged the results of calculations of the CAPM and DCF with the averages of the comparable returns and using a one-hundred basis point range of uncertainty, the cost of equity estimate becomes 8.62 percent to 9.62 percent. To provide for this return, allowance must be made for issuance and other costs, as shown on Schedule D-1.2. Therefore, an adjustment factor of 1.01677 was applied resulting in a baseline cost of common equity recommendation of 8.76 percent to 9.78 percent, as shown on Staff's Schedule D-1.

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<sup>17</sup> See Staff Schedule D-1.4

<sup>18</sup> See Staff Schedule D-1.11

## RATES AND TARIFFS

In this case, Applicant requests authority to modify its electric distribution rates and charges. Staff investigated the rates and tariff matters proposed by Applicant. The results of the investigation by Staff are herein reported. It is the intent of Staff to provide analysis regarding the acceptability and reasonableness of the revenue recovery mechanisms contained in the proposed tariffs. Staff developed the recommended rates and charges in this section to generate a base distribution revenue requirement of \$911,751,041, which is an approximate midpoint of Staff's recommended revenue requirement range. The proposals made by Staff may require adjustments in order to generate the base distribution revenue requirement authorized by the Commission. Typical bills are presented at the end of the Report, in Schedule E-5.

### Tariff Analysis

The Applicant is proposing changes to its tariffs. Unless noted, Staff recommends approval of these change as proposed by the Applicant.

#### Inspections (Terms and Conditions 7) sheet No. 103-3

The Company is proposing to add the following tariff language to inspections: "The Company reserves the right to inspect any service that has been disconnected/deenergized for a period for six months or more prior to reconnecting the service. The customer shall pay the company \$27 for the inspection service."

Staff does not object to providing the Company with a right to inspect any service that has been disconnected for a period of six months or more. Staff, however, does not believe that the \$27 charge for such an inspection is appropriate or reasonable. Staff recommends that customers not have to pay an additional charge if a visual inspection is performed prior to a reconnection of service.

#### Location & Maintenance of Company's Equipment (Terms and Conditions 8) Sheet No. 103-4

The Company is proposing the following language (in italics) to location and maintenance of Company's equipment: "(t)he Company shall have the right to *require the customer to provide the necessary easement in order to allow the Company to erect and maintain its poles, lines, circuits and other necessary facilities on the customer's property, and to place and maintain its transformers and other apparatus on the property or within the buildings of the customer at convenient locations.*" This modification may establish a new requirement for customers to utilize the Company's standard easement.

Through data requests the Company suggests that the additional tariff language would require customers to utilize the Company's standard easement. Staff believes that the proposed language is vague as well as has the potential for additional disputes. Staff recommends not including this new right to require the customer to utilize the Company's standard easement.

#### Work Performed on Company's Facilities at Customer's Request (Terms and Conditions 12) Sheet No. 103-9

The Company is proposing that it will no longer itemize cost by major categories for work performed at the customer's request on the Company's facilities.

Through data requests the Company suggests that if a customer would request cost to be itemized then the Company would itemize the cost for the customer. Staff recommends adding tariff language, "Customers may request an itemization of cost."

**Meter Registration and Testing (Terms and Conditions 14) Sheet No. 103-10**

The Company is proposing to expand its access to customer's meters and premises to all hours by removing the "reasonable requirement" and "adding any business purpose."

Staff recommends denying the Company's proposal and, thereby, keeping access to a customer's meter and premises restricted to "reasonable hours" and not for "any business purpose." The Company's access issues over time should be resolved with AMI. Furthermore, every electric tariff has the "reasonable requirement" in its tariff. Staff also objects to allowing access for "any business purpose" as too broad.

**Advanced Meter Opt Out (Terms and Conditions 16) Sheet No. 103-12**

The Company is proposing to remove the requirement to have an area 85 percent installed AMI prior to charging for the opt out fee. In addition, there is a new provision to provide property owners with opt out rights superior to renters.

Staff recommends keeping the 85 percent requirement until a full deployment of AMI. Staff recommends not providing property owners with a superior right on meter choice.

**Delayed Payment Charge (Terms and Conditions Schedule RS) Sheet No. 210-3**

The Company is proposing a delayed payment charge on all residential accounts not paid as of the due date. The charge is one and one-half percent (1.5%) of the total amount billed due within 15 days after the mailing of the bill.

Staff recommends that the delayed payment charge be applied after 21 days of the mailing due date. In addition, Staff recommends that the delayed payment charge not apply to PIPP customers or to any competitive retail electric service or non-jurisdictional optional service.

**Net Energy Metering Service (Terms and Conditions Schedule NEMS) Sheet No. 261-2**

The Company is proposing multiple changes to the tariff. These changes correspond to the recent changes to the Ohio Adm.Code 4901:1-10-28.

Staff recommends the Company add a provision in the tariff to account for net metering customers who choose a net metering contract with their Competitive Retail Electric Service (CRES) provider. A customer with a standard service offer would naturally have their net metering agreement with the Company. A customer with a CRES provider, however, may elect to have their net metering generation agreement with the Company or their CRES provider. In the instance of a customer having their net meter generation agreement with their CRES provider, the Company would not be responsible for the excess generation credit. Staff recommends that the proposed tariff account for a CRES-managed net meter generation agreement.

In addition, the proposed method of settlement for CRES providers reflected in unaccounted for energy does not align with the settlement process described in Adm.Code 4901:1-10-28(A)(9)(h). Staff recommends that the company transition to the settlement of negative hour load with the hourly energy obligation instead of through unaccounted for energy.

**Pole Attachment Tariff Sheet Nos. 300-1 thru 300-3**

The Applicant's current tarified rate of \$9.59 per attachment, per year was established in Case No. 15-974-EL-ATA. The current rate was calculated using the Federal Communications Commission's (FCC) pole

attachment formula, as adopted by the Commission, primarily using 2014 FERC Form 1 data for inputs. The Applicant has proposed no changes to its Schedule PA (Pole Attachment) tariff excluding headers and footers.

In this case, Staff applied the pole attachment formula to calculate a current pole attachment rate. Staff is recommending that the tariffed pole attachment rate be updated to include 2019 FERC Form 1 data, the most recent available, as inputs in the calculation. The Staff's calculation also includes unamortized excess Accumulated Deferred Income Taxes as required by the Commission in Case No. 18-47-AU-COI.<sup>19</sup> Using the Commission's adopted pole attachment formula and its presumptions, Staff has determined the maximum annual rate for a pole attachment occupying one foot of space is \$9.38.

#### **Pilot Throughput Balancing Adjustment Rider (PTBAR) Sheet No. 406-1**

The Company proposes in this application to continue the PTBAR and update the rider to reflect the test year billing determinants authorized in this proceeding. The Company is also proposing to redesign the General Service (GS) schedules in this application. The proposed redesign of the GS schedules will eliminate Schedule GS-1, which is currently the only general service schedule decoupled in the PTBAR. Since the Company is eliminating Schedule GS-1, they are proposing to modify the PTBAR by decoupling only the first 4,500 kWh for all Schedule GS secondary voltage customers.

This proposal by the Company would be an expansion to the currently decoupled general service tariffs, both in terms of included customers and amount of energy revenue to be decoupled. Currently, the PTBAR includes 124,083 GS-1 customers and decouples \$6,523,829 in energy revenue associated with GS-1 customers. As proposed, the Company would include in the PTBAR 188,955 Standard GS-Secondary customers and decouple energy revenue of \$69,366,131.2. The proposed changes result in a test year energy revenue of \$367.10 per Standard GS-Secondary customer.

Staff supports the continuation of the PTBAR for residential and small general service customers and agrees with the Company that updating the test year usage and rates authorized in this proceeding should reduce the ongoing variances by capturing changes in customers usage. Staff also understands that the Company is in the process of redesigning and consolidating the general service tariffs. The Company's proposed changes to the general service tariffs would result in the need to adjust the PTBAR. While Staff understands the reason why the Company proposed to modify the PTBAR, the Company has not supported the modifications. As stated earlier, new customers and additional revenue that was never previously decoupled, will be decoupled under this proposal.

#### **Enhanced Service Reliability Rider Sheet No. 408-1**

Currently, AEP Ohio recovers approximately \$24 million in its base rates and an additional \$27.6 million through the ESRR associated with tree trimming. The Company is proposing to embed all tree trimming expenses, or \$45,091,362, into base rates and to utilize the ESRR to recover funding for its Danger Tree program without an annual cap.

Regarding tree trimming activities, Staff recommends that \$35,091,362 be embedded in base rates and \$10 million remain in the ESRR to allow for annual audits of the entire vegetation program. Any tree

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<sup>19</sup> See *In the Matter of the Commission's Investigation of the Tax Cuts and Jobs of 2017 on Regulated Ohio Utility Companies*, Case No. 18-47-AU-COI, Finding and Order at 19 (October 24, 2018).

trimming disallowances found would be reduced from the \$10 million recovered through the ESRR. This method of filing annual true-ups and auditing is consistent with the ESRR methodology currently in place.

In regard to the Company's Danger Tree program, Staff examined the reliability impact of outages caused by trees outside the right-of-way for each of the last five years<sup>20</sup> and found that while both interruptions per customer and outage minutes per customer were trending upward through 2018, the 2019 data suggests that the spending level in 2018 was appropriate for addressing danger trees. Based upon this previously mentioned data, Staff determined that 2018 spending of \$14,114,051 (rounded to \$15 million) to be an appropriate baseline for the amount recovered through the ESRR for the Danger Tree program with the expectation that spending, for this program, will dramatically decrease by 2024. Staff therefore recommends the Danger Tree program, annually funded through ESRR recoveries, be capped at \$15 million in years 2021 through 2023 as reflected in the following table.

Period	2021	2022	2023	2024 <sup>22</sup>	TOTAL
Base Rates	\$35,091,362	\$35,091,362	\$35,091,362	\$35,091,362	\$140,365,448
ESRR <sup>21</sup>	\$25,000,000	\$25,000,000	\$25,000,000	\$10,000,000	\$85,000,000
TOTAL	\$60,091,362	\$60,091,362	\$60,091,362	\$45,091,362	\$225,365,448

#### **Bad Debt Rider Sheet No. 461-1**

In this application, the Company is requesting to update the bad debt rider based on the test year level of factoring expense. The rider will compare the test year level of factoring expense to the actual factoring expense. The Company is also proposing to include in the rider any late payment fees collected from residential customers. This late payment revenue would be included as a credit to the bad debt rider. The Company further proposes to establish in base rates the 2019 level of transaction fees associated with debit and credit card payments. Any amounts above or below the base rate level would be reconciled through the bad debt rider.

Staff opposes the Company's proposals to include late payment fees and credit card transaction fees in the bad debt rider. Traditionally, late payment fees have been built into base rates as miscellaneous income and Staff is recommending that late payment fees continued to be recognized in that manner. Staff has made an adjustment on Schedule C-3.28 to recognize the inclusion of late payment revenue in the test year. Staff further opposes the inclusion of credit and debit card transaction fees in both the test year and the bad debt rider. Currently, customers who choose to pay using a credit or debit card bear the cost of the transaction fee. Staff avers that customers who choose this convenient third party provided payment method should continue to bear the cost of the fee. Staff has made an adjustment on Schedule C-3.21 to remove the level of transaction fees the Company proposed to establish in base rates.

<sup>20</sup> "Rule 10 Reports" filed in Case Nos. 16-0550-EL-ESS, 17-0890-EL-ESS, 18-0992-EL-ESS, 19-0992-EL-ESS, and 20-0992-EL-ESS.

<sup>21</sup> Includes \$10 million for incremental vegetation management Inside ROW (2021-2024) and \$15 million for the Danger Tree Program (2021-2023).

<sup>22</sup> Reflects Staff's recommendation that the reduction to the funding for the Danger Tree Program in the ESRR cease in 2024



#### **Retail Reconciliation Rider & SSO Credit Rider (Terms and Conditions) Sheet Nos. 425-1 and 424-1**

In Case No. 16-1852-EL-SSO, the Company was directed to differentiate the costs between standard service offer (SSO) customers and shopping customers.<sup>23</sup> Upon differentiation, the Company is proposing two riders to account for the proposed differences.

The Company has identified two quantifiable SSO costs of the PUCO/OCC assessment and the uncollectible expense of SSO customers. The Company has identified two quantifiable CRES costs of provider support labor costs and IT costs.

Staff recommends rejection of both riders. The Company did not examine all cost causation factors. Without looking at all factors, Staff cannot determine if or how cost should be allocated between shopping and non-shopping customers. Staff cannot recommend a charge that is not just and reasonable. In addition, Staff maintains that SSO is a default service, available to all customers and required by electric distribution companies to provide.

#### **Alternative Feed Service (Terms and Conditions Schedule AFS) Sheet No. 474-1**

The Company is proposing to tariff their alternative feed service (redundant service/backup service) which is currently a special service negotiated by individual contract. In addition, the Company wishes to gross up the contribution in aid of the customers for state and federal income taxes.

Although, Staff has concerns regarding a shift from negotiated contracts to a tariffed rate for Alternative Feed Service (AFS) particularly with the sensitivity of the AFS customers. Staff would recommend additional notice to the 111 customers of these proceedings as more than half of the current customers current are not charged for this service. In addition, Staff recommends that the income tax gross up of the customers contribution in aid be rejected.

#### **Miscellaneous Charges**

Miscellaneous charges are those costs recovered from customers who cause expenses to occur which are beyond the scope of regular business activities. These charges should be recovered from customers who cause the expense(s), rather than from customers in general. Staff has historically supported cost-based miscellaneous charges, in that they are incidental costs imposed by individual customers on the Applicant and, ultimately the rest of the customers. Staff believes the provisions and resulting charges should reflect the actual cost(s) incurred by the Applicant. The collection of these charges is generally not dollar-for-dollar, but a reasonable approximation of cost.

The Applicant proposed changes to current miscellaneous charges are summarized below:

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<sup>23</sup> See *In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan*, Case No. 16-1852-EL-SSO, Opinion and Order at 99 (April 25, 2018).

Table 1: Miscellaneous Charges			
Charges	Current rate	Proposed rate	Proposed Change
Reconnect Charge			
At meter - regular business hours	\$ 53	\$ 27	-49%
At meter - overtime	\$ 98	\$ 58	-41%
At meter - Sunday or holiday	\$ 119	\$ 71	-40%
At pole - regular business hours	\$ 154	\$ 161	5%
At pole - overtime	\$ 192	\$ 222	16%
At pole - Sunday or holiday	\$ 221	\$ 261	18%
Remove & reset meter	\$ 73	\$ -	-100%
Install locking device	\$ 73	\$ 78	7%
At customer's request for non-credit reasons	\$ 153	\$ 168	10%
Inspections for over 6 Months	\$ -	\$ 27	100%
Collection Trip Charge	\$ 16	\$ 18	13%
Meter Test Charge: Single Phase	\$ 64	\$ 75	17%
Meter Test Charge: Other Than Single Phase	\$ 85	\$ 100	18%
Investigate Tampering or Fraudulent Practice	\$ 49	\$ 52	6%
Returned Check Charge	\$ 9	\$ 12	33%
Temporary Service requiring only Read-in/out an Existing Meter	\$ 57	\$ 61	7%
Temporary Service (Overhead)	\$ 237	\$ 383	62%
Temporary Service (Underground)	\$ 134	\$ 144	7%
Connect Phone Line	\$ 57	\$ 66	16%
Perform Manual Meter Read	\$ 43	\$ 50	16%
Check Phone Line & Perform Manual Read	\$ 47	\$ 55	17%
Repair/Replace Surge Protector	\$ 119	\$ 119	0%
Repair/Replace Interval Board	\$ 121	\$ 137	13%
Repair/Replace Modem Board	\$ 210	\$ 236	12%
Repair/Replace Interval Board & Modem Board	\$ 260	\$ 279	7%
Monthly carrier charge		\$ 0.65	100%
Service Connections Fees-Service Fee Multiple Trips			
Normal Business Hours	\$ 28	\$ 31	11%
Off Shift	\$ 77	\$ 97	26%
Sunday or Holiday	\$ 100	\$ 127	27%

The Applicant also proposes new delayed payment charges for residential customers and other changes to current delayed payment charges are summarized below:

Table 2: Delayed Payment Charges			
Tariff Schedule	Proposed Sheet No.	Current Charge	Proposed Charge
RS	210-3	None	1.5% of the total amount billed
RS-TOD	216-1	None	1.5% of the total amount billed
RSDM	214-1	None	1.5% of the total amount billed
RS-TOU	215-1	None	1.5% of the total amount billed
GS	220-3	.67% - 5%	2.5% of the unpaid balance
GS-TOU	221-1	None	2.5% of the total amount billed
GS-TOD	222-1	2% - 5%	2.5% of the unpaid balance
County and Independent Fairs	228-1	5% of the total amount billed	2.5% of the unpaid balance
SL	241-6	5% of the total amount billed	2.5% of the total amount billed
EHG	250-1	5% of the unpaid balance	2.5% of the unpaid balance

#### **Reconnect Charge at Meter**

The Applicant proposed decreasing the Reconnect Charge at the meter for non-pay during regular business hours from \$53 to \$27; during overtime hours from \$98 to \$58; and on Sundays or holidays from \$119 to \$71. The Applicant provided support for the decrease with cost-based data, including work papers showing fully loaded hourly labor rate, travel time and equipment costs. The Applicant calculated Reconnect Charges at the meter to include an AMI Meter Adjustment Rounded 55% Credit. In response to Staff data request #154, the current percentage of AMI deployment as of October 2020 is 63%. This AMI deployment percentage amount is based on the number of AMI meters with remote capabilities to determine the AMI Meter Adjustment Credit. Staff has recalculated Reconnect Charge at the meter for non-pay during regular business hours to be \$23; during overtime hours \$47; and on Sundays or holidays \$58 using Applicant's methodology based on 63% AMI credit. As more AMI Meters are installed as part of future gridSMART proceedings, the AMI Meter Adjustment Credit must be updated as part of those proceedings to reflect the lowering costs of remote disconnection/reconnection. Therefore, Staff recommends the charges to be \$23, \$47 and \$58 respectively.

#### **Reconnect Charge at Pole**

The Applicant proposed increasing the Reconnection Charge at Pole for non-pay during regular business hours from \$154 to \$161; during overtime hours from \$192 to \$222; and on Sundays or holidays from \$221 to \$261. The Applicant provided support for the increase with cost-based data, including work papers showing fully loaded hourly labor rate, travel time and equipment costs. Therefore, Staff recommends approval.

#### **Install locking device service charge**

The Applicant proposed increasing the Install locking service charge from \$73 to \$78. The Applicant provided support for the increase with cost-based data, including work papers showing fully loaded hourly labor rate, travel time and equipment costs. Therefore, Staff recommends approval.

#### **Reconnect at customer's request for non-credit reasons**

The Applicant proposed increasing Disconnect and Reconnect at customer's request for non-credit related reasons from \$153 to \$168. However, the Applicant's workpaper supports a \$160 for the charge. In response to staff data request #16, the Applicant acknowledged \$160 is the recommended charge. Staff recommends approval of this charge at \$160.

**Inspection for over 6 Months**

The Applicant proposed new service charge of \$27 to inspect any service that has been disconnected /deenergized for a period of six months or more prior to reconnecting the service. Consistent with Staff's recommendation in the Tariff Analysis section of this report, Staff recommends the Commission deny this charge.

**Collection Trip Charge**

The Applicant proposed increasing the collection trip charge from \$16 to \$18. The Applicant provided support for the increase with cost-based data, including work papers showing fully loaded hourly labor rate, travel time and equipment costs. Therefore, Staff recommends approval.

**Minimum to Investigate Tampering or Fraudulent Practice**

The Applicant proposed increasing the minimum charge to investigate service obtained through tampering practices from \$49 to \$52. In response to staff data request #13, the Applicant provided support for the increase with cost-based data, including work papers showing fully loaded hourly labor rate, travel time and equipment costs. Staff recommends approval of the \$52 charge supported by the Applicant's work paper.

**Return Check Charge**

The Applicant proposed increasing the return check charge from \$9 to \$12. In response to staff data request #13, the Applicant provided support for the increase with cost-based data, including work papers showing fully loaded hourly labor rate, travel time and equipment costs. Staff recommends approval of the \$12 charge supported by the Applicant's work paper.

**Meter Test Charge: Single Phase**

The Applicant proposed increasing the meter test charge for single phase meters from \$64 to \$75. In response to staff data request #13, the Applicant provided support for the increase with cost-based data, including work papers showing fully loaded hourly labor rate, travel time and equipment costs. Staff recommends approval of the \$75 charge supported by the Applicant's work paper.

**Meter Test Charge: Other Than Single Phase**

The Applicant proposed increasing the meter test charge for meters other than single phase meters from \$85 to \$100. In response to Staff data request #13, the Applicant provided support for the increase with cost-based data, including work papers showing fully loaded hourly labor rate, travel time and equipment costs. Staff recommends approval of the \$100 charge supported by the Applicant's work paper.

**Temporary Service requiring only Reading-in/Out an Existing Meter**

The Applicant proposed increasing the charge for temporary service requiring only reading-in and reading-out an existing meter from \$57 to \$61. In response to Staff data request #13, the Applicant provided support for the increase with cost-based data, including work papers showing fully loaded hourly labor rate, travel time and equipment costs. Staff recommends approval of the \$61 charge supported by the Applicant's work paper.

**Temporary Service for Overhead/Underground Service**

The Applicant proposed to increase the charge to provide temporary service for single-phase 120/240 volt service from an existing source with adequate capacity from \$237 to \$383 (overhead) and from \$134 to \$144 (underground). In response to staff data request #13, the Applicant provided support for the increases with cost-based data, including work papers showing fully loaded hourly labor rate, travel time

and equipment costs. Staff recommends approval of the \$383 and \$144 charges supported by the Applicant's work paper.

#### **Interval Metering Operation, Maintenance and Meter Data Management Charges**

The Applicant proposed to increase the following charges associated with the operation and maintenance of an interval meter: Connect phone line to meter at a time other than the initial interval meter installation from \$57 to \$66; perform manual meter reading from \$43 to \$50; checking phone line and perform manual meter read due to communication loss from \$47 to \$55; replace interval board from \$121 to \$137; replace modem board from \$210 to \$236 and; replace interval and modem boards from \$260 to \$279. The Applicant proposed a new charge of \$0.65 per 1mb per month for communication with meters when the customer does not have telephone service. In response to staff data request #13 and #162, the Applicant provided support for the increases and new charge with cost-based data, including work papers showing fully loaded hourly labor rates, travel times, equipment costs and contracts. Staff recommends approval of the proposed charges supported by the Applicant's work papers.

#### **Service Connection Charges**

The Applicant proposes to increase the charges associated to initial service connections when three or trips are made for service installation that cannot be completed due to customer installation issues: during normal business hours from \$28 to \$31 ; other than normal business hours – off shift from \$77 to \$97 and; other than normal business hours – Sunday or holiday from \$100 to \$127. In response to staff data request #162, the Applicant provided support for the increases with cost-based data, including work papers showing fully loaded hourly labor rates, travel times and equipment cost. Staff recommends approval of the proposed charges supported by the Applicant's work papers.

#### **Delayed Payment Charges**

The Applicant proposes to establish a new 1.5 percent delayed payment charge for residential customers. In proposing to combine the Columbus Southern Power and Ohio Power rate zone schedules, the Applicant also proposes to apply a uniform 2.5 percent delayed payment charges for its general service customers. In response to staff data request #144, the Applicant clarified that the delayed payment charges will not compound on the total outstanding amount and will only apply to the unpaid portion of the current bill. They will not apply to third party charges or CRES charges nor will they be assessed to customers on PIPP accounts. Staff recommends approval of the delayed payment charges, subject to Staff's recommendations in the Tariff Analysis section of this report.

#### **Rate and Revenue Analysis**

Staff reviews an applicant's proposed rate schedules and designs for consistency with important ratemaking principles. The applicable schedules should provide the utility with the opportunity to recover an authorized revenue. The various schedules should represent a reasonable distribution of revenue between and among various customer classes. The schedules should be equitable and reasonable. The Schedules should provide for customer understanding, continuity of rates, and minimal customer impact.

Rate design criteria are to be viewed as a package; in that they are interrelated. Although each ratemaking principle can be separately identified and applied to rate schedule determinations, no single standard is overriding in the determination of a proper rate design. The rate schedules which comprise a utility's tariff should provide for recovery of expenses found proper during a regulatory proceeding. If the rate schedule is designed on the basis of cost causation, it will provide for expense recovery in the long-term, given changes in customer consumption characteristics. Normally, and to the extent sufficient information is

available, cost of service studies and related expense analyses are necessary to determine the appropriate level of revenue to be generated and the appropriate recovery of such revenue.

The rate schedules should be designed to be equitable and reasonable to the customers served, pursuant to their applicability. This criterion involves several considerations. The rate schedules should, to the extent practicable, be predicated upon the cost associated with a particular service rendered. Customers receiving like services should experience the same charges and provisions. Also, differences in applicable charges should represent differences in costs.

From a practical rate design standpoint, absolute equality between costs and revenues may be difficult to achieve in the short term. While it may be viewed as equitable to set rates at costs, if there is a substantial divergence in the current rates, the resulting impact on individual customers may be viewed as unreasonable. While Staff supports cost-based charges, Staff considers such items as resulting typical customer bill impacts and resulting revenue increases which would necessarily occur. While it is Staff's position that rates reflect costs, Staff also considers continuity associated with the current and proposed pricing structures. This may result in movement toward aligning revenues with costs, rather than an absolute match at a particular time period.

When employing these standards to develop and design rates, the results should be understandable to all the customers billed under the tariff.

### **Cost of Service Analysis**

Cost of service studies approximate the costs incurred by a utility in providing service and identify the cause of the costs. These are determined by assigning the costs to the customer class relative to what each class imposes on the system. There are several steps involved, as listed below:

- **Functionalization:** The separation of costs according to production, transmission or distribution function.
- **Classification:** The distribution of functionalized costs into the cost categories of customer, demand, or energy related costs. Customer costs are independent of customer usage characteristics and are costs which are associated with customer service connections to the system and vary with the number of customers served. Demand costs are those expenses which vary with the rate in which the service is used, such as the cost of meeting peak demand. Energy costs are the costs which vary according to the volume of energy consumed, or the customer's kilowatt-hour consumption. and
- **Allocation:** The assignment of classified costs to each customer class on an equitable and apportioned basis. This is determined by a combination of the number of customers, class demands, and energy usage.

The Cost of Service Study (COSS) filed by the Applicant is an embedded, fully allocated cost of service study by rate class for the test period ended November 30, 2020. The COSS classifies electric distribution-related cost items such as plant investment, operating expenses and taxes as either demand or customer-related, and then allocates the same items to the various customer classes while calculating the revenue responsibility of each class required to generate the applicant's recommended rate of return.

The Applicant based its allocations on the cost causation guidelines established in the NARUC "Electric Utility Cost Allocation Manual." The Applicant separated distribution plant costs into primary and secondary voltage functions, used the six-monthly coincident peaks to allocate primary demand costs,

and used a combination of each class's 12-month maximum demand and the summation of individual customers' annual maximum demands to allocate secondary demand costs. The allocation factors were developed based on load research study results for the twelve months period January 2019 to December 2019. Staff accepts the COSS as filed and finds it to be a reasonable indicator of cost responsibility.

COSS results are presented on Tables 3 and 4. Table 3 provides the Current and Applicant-proposed distribution related Rates of Return and Indexes for the customer classes. The Applicant proposes a levelized rate of return in this Application; Staff does not propose a change. Table 4 shows the results of the COSS and provides a comparison against the Applicant's current base revenue distribution and its proposed base revenue distribution. The Applicant's proposal shows reasonable movement toward the COSS results, which Staff finds acceptable.

**Table 3**  
**Cost of Service Results**  
**Rate of Return**

Rate Class	Current		Applicant Proposed	
	%	Index	ROR	Index
RS: Residential	-2.11%	0.98	7.9%	1
GS: Non-Demand Metered	0.19%	-0.09	7.9%	1
GS: Demand Metered - SEC	-2.07%	0.96	7.9%	1
GS: Demand Metered - PRI	-3.28%	1.53	7.9%	1
GS: Demand Metered - SUB/TRAN	-18.12%	8.43	7.9%	1
OL: Outdoor Lighting	2.73%	-1.27	7.9%	1
SL: Street Lighting	5.55%	-2.58	7.9%	1
<b>Total</b>	<b>-2.15%</b>	<b>1.00</b>	<b>7.9%</b>	<b>1</b>

**Table 4**  
**Cost of Service Results**  
**Base Revenue Distribution Percentage**

Rate Class	COSS Revenue Distribution	Current Revenue Distribution	Applicant's Proposed Revenue Distribution
	%	%	%
RS: Residential	58.86%	60.65%	58.86%
GS: Non-Demand Metered	3.01%	3.48%	3.14%
GS: Demand Metered - SEC	25.32%	24.16%	25.20%
GS: Demand Metered - PRI	9.57%	8.59%	9.57%
GS: Demand Metered - SUB/TRAN	1.17%	0.40%	1.17%
OL: Outdoor Lighting	1.36%	1.70%	1.36%
SL: Street Lighting	0.71%	1.01%	0.71%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

#### **Distribution of Proposed Revenue Increase/Decrease**

Applicant proposes an increase of \$402.1 million in distribution base revenues.<sup>24</sup> The proposed net increase after removing the revenue impact change in riders is \$42.3 million.<sup>25</sup> Staff analyzed the COSS utilized by the Applicant in this filing and finds it to be a reasonable indicator of costs and cost responsibility between classes. However, Staff recommends a reduction in the current total Company revenue recovery. Staff recommends distribution base revenues increase between \$237.2 million and \$257.7 million.<sup>26</sup> After removing the revenue impact change in riders, as proposed by the Applicant, Staff's recommendation results in net decrease ranging from \$122.6 million to \$102.1 million.<sup>27</sup>

Tables 5 and 6 provides the Applicant's and Staff's proposed distribution of base revenue and base revenue increase/decrease for each class of customer, as well as each class's percentage increase. Tables 7 and 8 provide the distribution of the Applicant's and Staff's proposed total revenue increase/decrease for each class, as well as each class's percentage increase. Tables 7 and 8 include current and proposed rider rates as filed by the Applicant. Tables 6 and 8 include current base and total revenues at Staff adjusted levels. These totals do not include miscellaneous revenues included in Applicant's Other Operating Revenues and Applicant proposed changes in Miscellaneous Charges that were not built into the Applicant's Schedules E-4.1 or Staff's Other Operating Revenues.

<sup>24</sup> Applicant's Schedule A-1.

<sup>25</sup> Applicant's Schedule A-1.

<sup>26</sup> Staff's Schedule A-1.

<sup>27</sup> Staff's Schedule A-1.



**Table 5**  
**Base Revenue Distribution and Increase**  
**Applicant Proposed**

Rate Class	Applicant Current Base Revenue		Applicant Proposed Base Revenue		Applicant Proposed Increase		
	\$	% of Total	\$	% of Total	\$	%	% of Total
RS: Residential	381,748,171	60.65%	597,294,044	58.86%	215,545,873	56.46%	55.93%
GS: Non-Demand Metered	21,895,298	3.48%	31,822,420	3.14%	9,927,122	45.34%	2.58%
GS: Demand Metered - SEC	152,068,990	24.16%	255,695,210	25.20%	103,626,220	68.14%	26.89%
GS: Demand Metered - PRI	54,077,804	8.59%	97,083,507	9.57%	43,005,703	79.53%	11.16%
GS: Demand Metered - SUB/TRAN	2,514,752	0.40%	11,853,148	1.17%	9,338,396	371.34%	2.42%
OL: Outdoor Lighting	10,711,863	1.70%	13,820,562	1.36%	3,108,699	29.02%	0.81%
SL: Street Lighting	6,360,078	1.01%	7,177,286	0.71%	817,207	12.85%	0.21%
<b>Total</b>	<b>629,376,956</b>	<b>100.0%</b>	<b>1,014,746,176</b>	<b>100.0%</b>	<b>385,369,220</b>	<b>61.2%</b>	<b>100.0%</b>

**Table 6**  
**Base Revenue Distribution and Increase**  
**Staff Proposed**

Rate Class	Staff Current Base Revenue		Staff Proposed Base Revenues		Staff Proposed Increase		
	\$	% of Total	\$	% of Total	\$	%	% of Total
RS: Residential	382,454,925	60.68%	508,591,710	58.86%	126,136,785	32.98%	53.96%
GS: Non-Demand Metered	22,008,187	3.49%	29,307,485	3.39%	7,299,298	33.17%	3.12%
GS: Demand Metered - SEC	152,126,619	24.14%	215,502,071	24.94%	63,375,452	41.66%	27.11%
GS: Demand Metered - PRI	54,095,109	8.58%	82,694,493	9.57%	28,599,384	52.87%	12.24%
GS: Demand Metered - SUB/TRAN	2,543,720	0.40%	10,073,988	1.17%	7,530,268	296.03%	3.22%
OL: Outdoor Lighting	10,711,863	1.70%	11,766,433	1.36%	1,054,570	9.84%	0.45%
SL: Street Lighting	6,360,078	1.01%	6,110,806	0.71%	(249,272)	-3.92%	-0.11%
<b>Total</b>	<b>630,300,500</b>	<b>100.0%</b>	<b>864,046,986</b>	<b>100.0%</b>	<b>233,746,485</b>	<b>37.1%</b>	<b>100.0%</b>

**Table 7**  
**Total Revenue Distribution and Increase**  
**Applicant Proposed**

Rate Class	Applicant Current Total Revenue		Applicant Proposed Total Revenue		Applicant Proposed Increase		
	\$	% of Total	\$	% of Total	\$	%	% of Total
RS: Residential	682,062,832	55.81%	715,687,356	56.74%	33,624,523	4.93%	85.70%
GS: Non-Demand Metered	55,473,225	4.54%	51,044,519	4.05%	(4,428,706)	-7.98%	-11.29%
GS: Demand Metered - SEC	318,656,318	26.07%	326,563,273	25.89%	7,906,955	2.48%	20.15%
GS: Demand Metered - PRI	114,645,306	9.38%	123,579,777	9.80%	8,934,471	7.79%	22.77%
GS: Demand Metered - SUB/TRAN	23,073,942	1.89%	22,217,324	1.76%	(856,618)	-3.71%	-2.18%
OL: Outdoor Lighting	17,501,914	1.43%	14,412,642	1.14%	(3,089,273)	-17.65%	-7.87%
SL: Street Lighting	10,689,552	0.87%	7,832,171	0.62%	(2,857,382)	-26.73%	-7.28%
<b>Total</b>	<b>1,222,103,090</b>	<b>100.0%</b>	<b>1,261,337,062</b>	<b>100.0%</b>	<b>39,233,971</b>	<b>3.2%</b>	<b>100.0%</b>

**Table 8**  
**Total Revenue Distribution and Increase**  
**Staff Proposed**

Rate Class	Staff Current Total Revenue		Staff Proposed Total Revenue		Staff Proposed Decrease		
	\$	% of Total	\$	% of Total	\$	%	% of Total
Residential	683,158,250	55.83%	627,802,975	56.45%	(55,355,276)	-8.10%	49.60%
Non-Demand Metered	55,793,974	4.56%	48,670,673	4.38%	(7,123,301)	-12.77%	6.38%
Demand Metered Secondary	318,758,618	26.05%	286,712,349	25.78%	(32,046,269)	-10.05%	28.72%
Demand Metered Primary	114,671,862	9.37%	109,308,327	9.83%	(5,363,535)	-4.68%	4.81%
Demand Metered Sub/Transmission	23,116,044	1.89%	20,452,901	1.84%	(2,663,143)	-11.52%	2.39%
Outdoor Lighting	17,501,914	1.43%	12,375,061	1.11%	(5,126,853)	-29.29%	4.59%
Street Lighting	10,689,552	0.87%	6,774,283	0.61%	(3,915,270)	-36.63%	3.51%
<b>Total</b>	<b>1,223,690,216</b>	<b>100.0%</b>	<b>1,112,096,569</b>	<b>100.0%</b>	<b>(111,593,647)</b>	<b>-9.1%</b>	<b>100.0%</b>

## Revenue and Rate Adjustment Recommendation

Staff recommends that the Commission grant the change in revenue generated by rates as proposed by Staff in Tables 6 and 8. Staff's proposed customer charges should not be adjusted to a lower level given a lower authorized base distribution revenue requirement.

## Customer Charge

In most cases, it is agreed that distribution system costs are fixed costs and classified as demand and customer related. In generally accepted ratemaking practices, fixed costs are recovered by an electric utility in two ways: customer charges and demand charges. The customer charge recovers some of the fixed costs that are directly attributable to serving an individual customer. These fixed costs are recovered through a flat charge per customer. The customer charge provides a price signal to the customer that

there are costs associated with serving him or her, independent of the customer's demand for consumption of energy. The demand charge and/or energy charge recovers the remainder of the capital operating costs the company incurs while providing sufficient operating capacity to meet that customer's maximum demand as needed. Historically, Ohio electric utilities have recovered the demand component of fixed costs through a volumetric rate. The Staff has utilized a minimally compensatory approach which requires little or no judgement with respect to customer related expenses. Using the Staff recommended method for determining residential customer charges, the customer charge per bill would be \$6.01. See Table 9 below.

**Table 9**  
**Residential Customer Charge**

Line No.	Account No.	Account Title	Account Balance
1		Plant accounts	
2	369	Services	\$289,115,716
3	370	Meters	\$2,050,724
4		Total Customer Related Distribution Plant	\$291,166,440
5		Accumulate Depreciation	\$(92,840,793)
6		Net Customer Related Distribution Plant	\$198,325,647
7			
8		Expense accounts	
9	586	Meters	\$55,973
10	587	Customer Installation	\$29,168
11	597	Maintenance of Meters	\$1,155
12	901	Supervision (Customer Acct)	\$249,769
13	902	Meter Reading	\$4,068,245
14	903	Customer Records, Collection	\$35,018,387
15	907	Supervision (Customer Service and Coll)	\$2,286,687
16	908	Customer Assistance	\$4,724,946
17	909	Information and Instruction	\$5,733,462
18		Total Customer Expense	\$52,167,791
19			
20		Customer Related Distribution Plant Carrying Cost (Line 6 x .2039	\$40,432,084
21		Total Carrying Cost and Expenses (Line 18 + Line 20)	\$92,599,874
22		No. Customer Bills /Year	15,405,296
23		Staff Calculated Monthly Customer Charge	\$6.01

In this case, Applicant proposed to shift a portion of the Secondary Demand costs into the customer charge and away from the volumetric charge that currently serves as a proxy for demand charges. Applicant explains that in the absence of collection through demand charge, inclusion of demand related fixed costs in the monthly service charge is reasonable.<sup>28</sup> In consideration of the gradualism concept,

<sup>28</sup> See Company response to PUCO-DR-68.

Applicant proposes to include in the customer charge only 62.5 percent of costs classified as secondary-distribution demand related in the COSS. Applicant proposed to increase the monthly customer charge for residential customers to \$14, which represents a 67 percent increase over Applicant's current customer charge of \$8.40. Although the current residential customer charge is \$8.40, the effective customer charge was \$11.79 per month as of December 2019.<sup>29</sup> At the end of August 2020, the effective customer charge increased to \$12.10 per month.

Applicant's proposal significantly differs from the Customer Charge / Minimum Bill Rationale provided on Schedule E-3.1. This schedule includes only the customer components of the COSS and supports an \$8.11 monthly residential customer charge.

In the absence of collection through demand charges, the current practice of recovering the demand component of fixed costs through a volumetric rate is reasonable. Staff recommends that the minimally compensatory approach to calculate customer charges be maintained in this case. Although Staff's calculation supports a \$6.01 residential customer charge, Staff believes the customer charges calculated on Schedule E-3.1 are reasonable and recommends that the Commission approve a residential customer charge of \$8.11 in this case.

## **Rate Design**

Applicant has proposed rate changes specific to the various schedules in its tariff. The Applicant proposes to consolidate the Ohio Power (OP) and Columbus Southern Power (CSP) rate zones and several of its tariffs to simplify and standardize its rate schedules.

The following analysis provides Staff's recommendations regarding those proposals. A summary of the current rates, Applicant-proposed rates and Staff-proposed rates are provided for an example schedule. The current rates are the rates now in effect for the Applicant. The proposed rates are the rates proposed by Applicant to generate the requested revenue increase and the Applicant-proposed revenue distribution. The Staff-proposed rates reflect Staff's proposed base distribution revenue requirement of \$911,751,041, which is an approximate midpoint of Staff's recommended revenue requirement range. These are presented for illustrative purposes to show the impact Staff's recommended changes to the base distribution revenue requirement have on rate increases. The increases reflect changes to the base rate and do not represent the total bill impact. Typical bills at the end of this report reflect Staff's proposed base distribution revenue requirement and include rider rates as proposed by the Applicant in its Application.

### **Residential**

The Applicant has proposed to consolidate and simplify the residential rate schedules. The changes are summarized in Table 10 below.

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<sup>29</sup>  $\$8.40 + (\$8.40 * 40.36715\%) = \$11.79$ ; 40.36715% represents the total adjustment to the customer's distribution charges from the following riders: EDR, ESRR, RDCR and DIR.

**Table 10**  
**Residential Schedule Consolidation**

Proposed	Current	
RS	OP	RS - Residential Service
	CSP	R-R - Residential Service
	CSP	R-R-1 - Residential Small Use Load Management Service
RSDM	OP	RDMS - Residential Demand Metered Service
	OP	RSDM - Residential Service – Demand-Metered
	CSP	RSDM - Residential Service – Demand-Metered
RS-TOU & RS-TOD	OP	RS-TOD - Time-of-Day
	OP	RS-ES - Energy Storage
	CSP	RLM - Residential Optional Demand Service
	CSP	RS-ES - Residential Energy Storage
	CSP	RS-TOD - Residential Time-of-Day Service
	CSP	RS-TOD2 - Experimental Residential Time-of-Day Service
	CSP	CPP - Experimental Critical Peak Pricing
	CSP	RS-RTP

Schedule RS – Residential Service

This rate is available to customers desiring secondary service for all residential purposes through one meter to a single or double occupancy dwelling unit including farm dwellings and who request and receive electric generation service from either the SSO or a qualified CRES Provider. The Applicant is maintaining the same block structure with the exception that the Storage Water Heating Provision is now eliminated. The Applicant is proposing to increase the customer charge from \$8.40 to \$14.00. Staff recommends decreasing the customer charge to \$8.11. To achieve Staff's proposed revenue, Staff is proposing an energy charge of \$0.0277353/kWh, as shown in Table 11.

**Table 11**  
**Schedule RS**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
	\$	\$	%	\$	%
Customer Charge	8.40	14.00	66.67	8.11	-3.45
Energy Charge: All kWh	0.0182747	0.0276373	51.23	0.0277353	51.77

#### Schedule RS-TOU - Residential Time-of-Use Service

This rate schedule is available for residential secondary service through one multiple-register meter capable of measuring electrical energy consumption during the on-peak and off-peak billing periods to individual residential customers and/or customers previously receiving service under Schedule RS-ES and Schedule RLM.

The Applicant's customers currently receiving service under Schedules RS-TOD, RS-ES and RLM would be served under Schedule RS-TOD. This schedule is in the process of elimination and withdrawn except for the present installation of customers receiving service on the effective date of the tariff. The proposed monthly rate is consistent with Schedule RS-TOU.

The Applicant proposes a simplified rate schedule with a customer charge and energy charge applicable to all kWh. The Applicant is proposing to increase the customer charge from \$9.25 to \$14.00. Staff recommends decreasing the customer charge to \$8.11. To achieve Staff's proposed revenue, Staff is proposing an energy charge of \$0.0277353/kWh. Table 12 compares the current, Applicant-proposed, and Staff-proposed rates for customers currently served under Ohio Power's RS-TOD schedule.

**Table 12**  
**Schedule RS-TOU**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
<b>OP RS-TOD</b>	\$	\$	%	\$	%
Customer Charge	9.25	14.00	51.35	8.11	-12.32
Energy Charge: All kWh	0.0182747	0.0276373	51.23	0.0277353	51.77

#### Schedule RSDM – Residential Service - Demand-Metered

This rate is available to customers desiring secondary service for all residential purposes through one meter to a single or double occupancy dwelling unit including farm dwellings and who request and receive electric generation service from either the SSO or a qualified CRES Provider. The Applicant is maintaining the same block structure. The Applicant is proposing to increase the customer charge from \$8.40 to \$14.00. Staff recommends decreasing the customer charge to \$8.11. To achieve Staff's proposed revenue, Staff is proposing an demand charge of \$4.50/kW, as shown in Table 13.

**Table 13**  
**Schedule RSDM**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
	\$	\$	%	\$	%
Customer Charge	8.40	14.00	66.67	8.11	-3.45
Demand Charge (per kW)	3.17	4.48	41.32	4.50	41.96

#### **General Service**

The Applicant has proposed to consolidate and simplify the General Service rate schedules. These changes are summarized in Table 14 below.

**Table 14**  
**GS Schedule Consolidation**

Proposed		Current	
GS- General Service	GS - Unmetered Service Provision	OP	GS-1 - General Service Unmetered
		CSP	GS-1 - General Service Unmetered
	GS - Secondary	OP	GS-1 Metered - General Service - Non-Demand Metered
		CSP	GS1-Metered
		OP	GS-2 Secondary Voltage
		CSP	GS-2 Secondary Voltage
		OP	GS-3 Secondary Voltage
		CSP	GS-3 Secondary Voltage
	GS - Primary	OP	GS-2 Primary Voltage
		CSP	GS-2 Primary Voltage
		OP	GS-3 Primary Voltage
		CSP	GS-3 Primary Voltage
		OP	GS-4 Primary Voltage
	GS - Transmission	OP	GS-2 Subtransmission Voltage
		OP	GS-3 Subtransmission Voltage
		OP	GS-4 Subtransmission Voltage
		OP	GS-2 Transmission Voltage
		OP	GS-3 Transmission Voltage
		OP	GS-4 Transmission Voltage
		CSP	GS-4
	Recreational Lighting Provision	OP	GS-2 Recreational Lighting Service
GS-TOU & GS-TOD		CSP	GS-1 - Load Management Time-of-Day Provision
		CSP	GS1-TOD - Experimental Small General Service Time-of-Day
		OP	GS-1-ES General Service - Non-Demand Metered
		OP	GS-TOD
		CSP	GS-2 TOD
		OP	GS-3 - Energy Storage Provision
		OP	GS-2 ES
		CSP	GS2- LMTOD
GS-Fair		OP	County and Independent Fairs
		CSP	County and Independent Fairs

#### Schedule GS - General Service

This rate schedule is available for general service to non-residential customers served under secondary, primary and transmission voltage and who request and receive electric generation service from either the SSO or a qualified CRES Provider. Generally, it represents the consolidation of GS-1, GS-2, GS-3, and GS-4 tariffs, consolidating sub-transmission and transmission voltage customers, eliminating off-peak demand

provisions, and combining elements of both the non-demand and demand tariffs to establish a single tariff. This consolidation of tariffs includes non-demand and demand tariffs. The Applicant has designed this tariff to accommodate customers that currently are non-demand using an energy charge for the first 4,500 kWh. Once a customer goes over the 4,500 kWh they are no longer charged an energy charge. The demand charge is not charged until a customer goes over 10kW. Therefore, once the kWh used is over 4,500 kWh there is no energy charge and the kW demand charge will be \$0 from 0 kW to 10 kW. This design prevents customers from having to switch tariffs if their usage fluctuates.

#### Unmetered Service Provision

The General Service schedule includes an Unmetered Service Provision. This is available at the option of the Company for loads consisting of small fixed electric loads such as traffic signals and signboards which can be served by a standard service drop from the Company's existing secondary distribution system.

The Applicant is maintaining the same block structure. Table 15 compares the current, Applicant-proposed, and Staff-proposed rates for customers currently served under Ohio Power's GS-1- Unmetered schedule. Customers currently pay a customer charge of \$7.35 and an energy charge of \$0.0027999 for all kWh. The Applicant proposes a customer charge of \$6.30 and an energy charge of \$0.0215502 for all kWh. To achieve Staff's proposed revenue, Staff is proposing an energy charge of \$0.0180553/kWh.

**Table 15**  
**Schedule GS – Unmetered**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
<b>OPCo GS-1 - Unmetered</b>	\$	\$	%	\$	%
Customer Charge	7.35	6.30	-14.29	6.30	-14.29
Energy Charge: All kWh	0.0027999	0.0215502	669.68	0.0180553	544.86

#### Secondary Service Voltage

The General Service schedule includes rates for Secondary Service Voltage. This rate is available for general service to non-residential customers served under secondary voltage and who request and receive electric generation service from either the SSO or a qualified CRES Provider.

The Applicant will serve customers currently receiving secondary voltage service under GS-1, GS-2, and GS-3 tariffs under the proposed General Service schedule secondary service voltage rates.

Table 16 compares the current, Applicant-proposed, and Staff-proposed rates for customers currently served under Ohio Power's GS-2- Secondary schedule. Customers currently pay a customer charge of \$22.79 and a demand charge of \$4.16 for all kW. The Applicant proposes a customer charge of \$10.45 and an energy charge of \$0.0215502 on the first 4,500 kWh. Any kWh over 4,500 would not be billed. However, customers will be billed a demand charge of \$7.29 per kW over 10 kW. To achieve Staff's proposed revenue, Staff is proposing an energy of \$0.0180553/kWh for the first 4500 kWh, a demand charge of \$6.10/ kW over 10 kW, and an excess demand charge of \$1.19 per kVA.

**Table 16**  
**Schedule GS – Secondary**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
<b>OP GS-2 - Secondary</b>	\$	\$	%	\$	%
Customer Charge	22.79	10.45	-54.15	10.45	-54.15
Energy Charge - First 4500 kWh	N/A	0.0215502	N/A	0.0180553	N/A
Energy Charge - Over 4500 kWh	N/A	N/A	N/A	N/A	N/A
Demand Charge (per kW) - First 10 kW	4.16	N/A	N/A	N/A	N/A
Demand Charge (per kW) - Over 10 kW	4.16	7.29	75.24	6.10	46.63
Off Peak Excess Demand Charge	4.16	N/A	N/A	N/A	N/A
Excess Demand Charge (\$ per kVA)	3.82	1.39	-63.61	1.19	-68.85

#### Primary Service Voltage

The General Service schedule includes rates for Primary Service Voltage. This rate is available for general service to non-residential customers served under primary voltage and who request and receive electric generation service from either the SSO or a qualified CRES Provider.

Table 17 compares the current, Applicant-proposed, and Staff-proposed rates for customers currently served under Columbus Southern Power's GS-3 Primary schedule. Customers currently pay a customer charge of \$115.29 and a demand charge of \$3.183 for all kW. The applicant proposes a customer charge of \$154.30 and an energy charge of \$0.0150584 on the first 4,500 kWh. Any kWh over 4,500 would not be billed. However, customers will be billed a demand charge of \$6.64 per kW over 10kW. To achieve Staff's proposed revenue, Staff is proposing an energy of \$0.0126732/kWh for the first 4500 kWh, a demand charge of \$5.59/ kW over 10 kW, and an excess demand charge of \$1.15 per kVA.

**Table 17**  
**Schedule GS – Primary**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
<b>CSP GS-3 Primary</b>	\$	\$	%	\$	%
Customer Charge	115.29	154.30	33.84	154.30	33.84
Energy Charge - First 4500 kWh	N/A	0.0150584	N/A	0.0126732	N/A
Energy Charge - Over 4500 kWh	N/A	N/A	N/A	N/A	N/A
Demand Charge (per kW) - First 10 kW	3.183	N/A	N/A	N/A	N/A
Demand Charge (per kW) - Over 10 kW	3.183	6.64	108.61	5.59	75.62
Off Peak Excess Demand Charge	3.183	N/A	N/A	N/A	N/A
Excess Demand Charge (\$ per kVA)	0.835	1.35	61.68	1.15	37.72

#### Transmission Service Voltage

The General Service schedule includes rates for Transmission Service Voltage. This rate is available for general service to non-residential customers served under transmission voltage and who request and receive electric generation service from either the SSO or a qualified CRES Provider. The applicant's rate design eliminates any differences between the sub-transmission and transmission voltage customers.



Table 18 compares the current, Applicant-proposed, and Staff-proposed rates for customers currently served under Ohio Power’s GS-3 Subtransmission. Customers currently pay a customer charge of \$512.00 and an excess demand charge of \$3.82 for all kVA. The Applicant proposes a customer charge of \$825.00, a demand charge of \$2.35 per kW up to 2,000 kW, and an excess demand charge of \$0.78 for all kVA. To achieve Staff’s proposed revenue, Staff is proposing a demand charge of \$1.91 per kW up to 2,000 kW and an excess demand charge of \$0.66.

**Table 18**  
**Schedule GS – Transmission**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
<b>OP GS-3 Subtransmission</b>	\$	\$	%	\$	%
Customer Charge	512.00	825.00	61.13	825.00	61.13
Demand Charge (per KW up to 2,000 kW)	N/A	2.35	N/A	1.91	N/A
Excess Demand Charge (\$ per kVA)	3.82	0.78	-79.58	0.66	-82.72

#### Recreational Lighting Service

The General Service schedule includes rates for Recreational Lighting Service. This rate is available to customers for separately metered non-profit outdoor recreational facilities.

Table 19 compares the current, Applicant-proposed, and Staff-proposed rates for customers currently served under Ohio Power’s GS-2 Recreational Lighting Service. Customers currently pay a customer charge of \$17.23 and an energy charge of \$0.0125784 for all kWh. The Applicant proposes a customer charge of \$10.45 and an energy charge of \$0.0215502 for all kWh. To achieve Staff’s proposed revenue, Staff is proposing an energy charge of \$0.0180553/kWh.

**Table 19**  
**Schedule GS - Recreation Lighting Service**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
	\$	\$	%	\$	%
Customer Charge	17.23	10.45	-39.35	10.45	-39.35
Energy Charge (per kWh)	0.0125784	0.0215502	71.33	0.0180553	43.54

#### Schedule GS-TOU - General Service Time-of-Use

This rate is available for general service to customers with maximum demands less than 10 kW through one single-phase, multi-register meter capable of measuring electrical energy consumption during variable pricing periods. Availability is restricted to customers served by the circuits designated for the Company’s gridSMART program with an AMI meter.

The Applicant’s customers currently receiving service under Schedules GS-TOD, GS-1 ES, GS-2 ES, GS-2-TOD and GS-2 LMTOD would be served under Schedule GS-TOD – General Service – Time-of-Day. This schedule is in the process of elimination and withdrawn except for the present installation of customers receiving service on the effective date of the tariff. The proposed rates for Schedule GS-TOD are consistent with Schedule GS-TOU.

Table 20 shows the Applicants proposed customer charge and energy charge compared to Staff's proposed rates for customers currently served under Ohio Power's GS-TOD schedule. Customers currently pay a customer charge of \$22.79, an on peak energy charge of \$0.0227282/kWh, and an off-peak energy charge of \$0.0003512/kWh. The Applicant proposes a customer charge of \$10.45 and an energy charge of \$0.0215502 for all kWh. To achieve Staff's proposed revenue, Staff is proposing an energy charge of \$0.0180553/kWh.

**Table 20**  
**Schedule GS -TOU**

	<b>Current</b>	<b>Applicant</b>		<b>Staff</b>	
		<b>Proposed</b>	<b>Increase</b>	<b>Proposed</b>	<b>Increase</b>
<b>OP GS-TOD</b>	\$	\$	%	\$	%
Customer Charge	22.79	10.45	-54.15	10.45	-54.15
Energy Charge (per kWh)	N/A	0.0215502	N/A	0.0180553	N/A
On Peak Energy Charge (per kWh)	0.0227282	N/A	N/A	N/A	N/A
Off peak Energy Charge (per kWh)	0.0003512	N/A	N/A	N/A	N/A

#### Schedule GS-Fairs - County and Independent Fairs

This rate is available for general service to Ohio Agricultural County and Independent Fairs.

Table 21 compares the current, Applicant-proposed, and Staff-proposed rates for customers currently served under Ohio Power's County and Independent Fairs schedule. For secondary voltage, the Applicant is proposing to decrease the customer charge from \$22.79 to \$10.45 and increase in the energy charge from \$0.016749/kWh to \$0.0215502/kWh. To achieve Staff's proposed revenue, Staff is proposing an energy charge of \$0.0180553/kWh. For primary voltage, the Applicant is proposing to increase the customer charge from \$95.47 to \$154.30 and increase in the energy charge from \$0.012805/kWh to \$0.0150584/kWh. To achieve Staff's proposed revenue, Staff is proposing an energy charge of \$0.0126732/kWh.

**Table 21**  
**Schedule GS – Fair**

	<b>Current</b>	<b>Applicant</b>		<b>Staff</b>	
		<b>Proposed</b>	<b>Increase</b>	<b>Proposed</b>	<b>Increase</b>
<b>Secondary Voltage</b>	\$	\$	%	\$	%
Customer Charge	22.79	10.45	-54.15	10.45	-54.15
Energy Charge (per kWh)	0.016749	0.0215502	28.67	0.0180553	7.80
<b>Primary Voltage</b>	\$	\$	%	\$	%
Customer Charge	95.47	154.30	61.62	154.30	61.62
Energy Charge (per kWh)	0.012805	0.0150584	17.60	0.0126732	-1.03

#### Schedule EHG - Electric Heating General

This rate is available for the entire requirements of general service customers who have installed and in regular active use electric heating equipment which supplies the entire space heating of the customer's premises and take service from either the SSO or a qualified CRES Provider. This schedule is in the process of elimination and withdrawn except for the present installation of customers receiving service on the effective date of the tariff.

Table 22 compares the current, Applicant-proposed, and Staff-proposed rates for customers. The Applicant is proposing to decrease the customer charge from \$21.96 to \$10.45 and increase in the energy charge from \$0.0132863/kWh to \$0.0145809/kWh and an increase in the demand charge from \$1.18/kW to \$7.29/kW over 30 kW. To achieve Staff's proposed revenue, Staff is proposing an energy charge of \$0.0122071/kWh and a demand charge of \$6.10/kW over 30 kW.

**Table 22**  
**Schedule EHG**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
	\$	\$	%	\$	%
Customer Charge	21.96	10.45	-52.41	10.45	-52.41
Energy Charge: All kWh	0.0132863	0.0145809	9.74	0.0122071	-8.12
Demand Charge (per kW) - Over 30 kW	1.18	7.29	517.80	6.10	416.95

#### Schedule EHS - Electric Heating Schools

This rate is available to primary and secondary schools for which the entire electrical requirement is furnished by the Company, and such electrical requirement includes all cooling (if any) in the entire school and electric heating for all of (or in addition to) the school and take service from either the SSO or a qualified CRES Provider. This schedule is in the process of elimination and withdrawn except for the present installation of customers receiving service on the effective date of the tariff.

Table 23 compares the current, Applicant-proposed, and Staff-proposed rates for customers. The Applicant is proposing to introduce a customer charge of \$10.45 to replace the minimum bill charge of \$12.22, and an increase in the energy charge from \$0.0021744/kWh to \$0.0215502/kWh. To achieve Staff's proposed revenue, an energy charge of \$0.0180553/kWh would apply under the Applicant's proposed rate design. However, to minimize total bill impacts for the sole customer on this tariff, Staff proposes reducing the energy charge in half to \$0.0090277/kWh.

**Table 23**  
**Schedule EHS**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
	\$	\$	%	\$	%
Customer Charge*	12.22	10.45	-14.48	10.45	-14.48
Energy Charge: All kWh	0.0021744	0.0215502	891.09	0.0090277	315.18

\* Customer Charge is a minimum charge

#### Schedule SS - School Service

This rate is available to primary and secondary school, college and university buildings for which the entire electrical requirement is furnished by the Company and take service from either the SSO or a qualified CRES Provider. This schedule is in the process of elimination and withdrawn except for the present installation of customers receiving service on the effective date of the tariff.

Table 24 compares the current, Applicant-proposed, and Staff-proposed rates for customers. The Applicant is proposing to decrease the customer charge from \$31.84 to \$10.45, and an increase in the

energy charge from \$0.0124738 to \$0.0215502. To achieve Staff's proposed revenue, Staff is proposing an energy charge of \$0.0180553/kWh.

**Table 24**  
**Schedule SS**

	Current	Applicant		Staff	
		Proposed	Increase	Proposed	Increase
	\$	\$	%	\$	%
Customer Charge	31.84	10.45	-67.18	10.45	-67.18
Energy Charge: All kWh	0.0124738	0.0215502	72.76	0.0180553	44.75

#### Schedule AL - Area Lighting

The Area Lighting rate is available to residential and general service customers where appropriate existing secondary distribution facilities are readily available for the lighting of private areas and who request and receive electric generation service from either the SSO or a qualified CRES Provider. This service is not available for street and highway lighting.

The Applicant is proposing to remove the facilities charge, which reduces the current revenue by \$1,846,269. The Applicant is then using the percentage increase in the proposed revenue requirement after removing the facilities charge revenue from the current revenue for area lighting which equates to a 56% percent increase to each rate. Staff agrees with this methodology, but when applying it the Staff recommended revenue requirement the percentage decreases to a 32.7% increase for each rate.

#### LED Lights

The Area Lighting schedule includes LED Lights rates. The Applicant is planning a complete transition of its lighting equipment to LED over 5 years. The rate schedules will simplify the current lighting tariff into uniform charges by lamp type and eliminating all existing facility charges as described in Company witness Roush's testimony. The new LED rates have been designed to anticipate the cost of the transition.

#### Schedule SL - Street Lighting

The Street Lighting rate is available for street lighting service to municipalities, townships, counties and other governmental subdivisions supplied through Company-owned facilities and who request and receive electric generation service from either the SSO or a qualified CRES Provider.

The Applicant is proposing to remove the facilities charge, which reduces the current revenue by \$468,116. The Applicant is then using the percentage increase in the proposed revenue requirement after removing the facilities charge revenue from the current revenue for street lighting which equates to a 22% percent increase to each rate. Staff agrees with this methodology, but when applying the Staff recommended revenue requirement the percentage decreases to a 2.5% increase for each rate.

#### LED Lights

The Street Lighting schedule includes LED Lights rates. The Applicant is planning a complete transition of its lighting equipment to LED over 5 years. The rate schedules will simplify the current lighting tariff into uniform charges by lamp type and eliminating all existing facility charges as described in Company witness Roush's testimony. The new LED rates have been designed to anticipate the cost of the transition.

## SERVICE MONITORING AND ENFORCEMENT

The Service Monitoring and Enforcement Department (SMED) contains three Divisions. The Facilities and Operations Field Division (FOFD) inspects utility facilities to ensure regulated utility service providers operate and maintain their systems to allow safe, reliable and quality service. The Reliability and Service Analysis Division (RSAD) ensures regulated utilities are providing reliable service and meet the requirements of Ohio Admin. Code 4901:1-10. The Consumer Services Division (CSD) investigates consumer inquires and complaints and conducts Customer Service Audits.

Below is a summary of SMED Staff's investigations and findings.

### Ohio Adm.Code 4901:1-10-04 Voltage measurements, system voltage and frequency requirements.

Staff performed one audit of the Company's voltage measuring equipment testing and calibration program in 2019. The audit concluded the Company's voltage measuring equipment is returned to the equipment manufacturer on a scheduled basis to ensure compliance with the National Institute of Standards and Technology.

### Ohio Adm.Code 4901:1-10-05 Metering

Staff performed one audit of the Company's metering and meter calibration program in 2019. The audit concluded the Company used customer meters that complied with American National Standards Institute (ANSI) standards and were appropriately tested and calibrated.

### Ohio Adm.Code 4901:1-10-06 National Electrical Safety Code

Staff completed 344 field inspection days during 2019 to assess the Company's compliance with the 2017 edition of the American National Standard Institute's (ANSI) "National Electrical Safety Code". These inspections consisted of field evaluations of Company physical facilities. Staff identified and submitted 284 recommended corrective actions to the Company during 2019, 12 associated with substations, 8 with vegetation clearance, 28 with the condition of underground facilities, and 236 with poles and overhead wiring. Each of these recommended corrective actions were responded to appropriately by the Company and Staff does not recommend any further action.

### Ohio Adm.Code 4901:1-10-10 Distribution System Reliability

Per Ohio Adm.Code 4901:1-10-10(C), each electric utility is required to annually submit a report (Rule 10 Report) of its performance along with supporting data for service reliability indices SAIFI (System Average Interruption Frequency Index) and CAIDI (Customer Average Interruption Duration Index).

	2019		2018		2017	
	Standard	Performance	Standard	Performance	Standard	Performance
<b>CAIDI</b>	148.00	140.98	149.00	150.32*	150.00	146.02
<b>SAIFI</b>	1.18	1.20*	1.19	1.30*	1.20	1.15

\*denotes missed standard

Per Ohio Adm.Code 4901:1-10-10(D), if a utility's annual performance does not meet that utility's performance standard for either index, the utility shall submit an action plan outlining factors which contributed to the failure as well as a proposal for improving performance. As noted in the table above,

Ohio Power missed its CAIDI and SAIFI standards in 2018 and missed its SAIFI standard in 2019, and action plans were provided to Staff for each of the misses.

Per Ohio Adm.Code 4901:1-10-10(E), the Company's failure to meet the SAIFI standard for two consecutive years constitutes a violation of this rule, and the Company was issued a letter of probable non-compliance addressing the violation. However, Staff notes that the SAIFI standard was missed by a relatively small margin and the performance against both standards was greatly improved from 2018 to 2019.

Ohio Adm.Code 4901:1-10-11 Distribution circuit performance

Per Ohio Adm.Code 4901:1-10-11(C)(1), each electric utility is required to annually submit a report (Rule 11 Report) of its eight percent worst performing circuits. Staff reviews the worst performing circuit report both holistically and on an individual-circuit basis. Per Ohio Adm.Code 4901:1-10-11(F), the inclusion of any circuit on the report for three consecutive years or more creates a rebuttable presumption of a violation of the rule.

	Circuits Reported	Repeat Circuits	SAIFI	SAIDI
<b>2019</b>	127	10	3.58	767.94
<b>2018</b>	130	4	3.52	669.59
<b>2017</b>	126	5	3.09	606.55

Staff notes that while the company reported ten repeat circuits in 2019, eight were reported for only each of the last three years, one was reported for each of the last four, and one was reported for each of the last five years. Staff monitors the Company's progress on remedial action plans intended to address reliability on all worst performing circuits.

Staff completed 19 inspection days during 2019 to assess the Company's actions towards improving reliability of their worst performing eight percent of their electrical distribution circuits. Inspectors reviewed the Company's Rule 11 Report and other records and performed field verifications of remedial work conducted by the Company. Staff concluded the Company had substantially complied with its plan to improve circuit performance.

Ohio Adm.Code 4901:1-10-27 Inspection, Maintenance, Repair, and Replacement Programs

Per Ohio Adm.Code 4901:1-10-27(D)(4), each electric distribution utility is required to annually submit a report (Rule 27 Report) listing all distribution circuits and substations inspected during the reporting year (including those added or retired) and the date(s) that such inspection(s) were performed. Per 4 Ohio Adm.Code 901:1-10-27(D)(1), all distribution circuits and equipment are to be inspected at least once every five years. Per Ohio Adm.Code 4901:1-10-27(D)(3), all substations are to be inspected twelve times annually with no inspection interval exceeding forty calendar days between inspections.

The Company reported an average of 466 active distribution substations each year. In the last three years, the Company reported ten retired substations and five new substations. In 2018, ten inspection intervals were found to exceed forty days and the Company was issued a letter of probable noncompliance. With the exception of those ten inspections, Staff has found that substation inspections for the last three years were conducted in accordance with Rule 27.

The Company has approximately 1550 active overhead circuits subject to inspection and reported an average of 315 inspections each year. In the last three years, the Company reported twenty-five retired circuits and thirty-six new circuits. Staff has found all circuit inspections for the last three years were conducted in accordance with Rule 27.

Ohio Admi.Code 4901:1-10-27(E)(1) requires electric utilities to establish, maintain, and comply with written programs, policies, procedures and schedules for the inspection, maintenance, repair and replacement of transmission and distributions circuits and equipment.

Staff conducted an audit of the Company's records associated with its poles and towers inspection and replacement program, circuit and line inspection program, and vegetation management program in 2019. This audit concluded the Company was generally in compliance with the applicable requirements of the Ohio Administrative Code. Staff also conducted 87 field inspection days during 2019 to verify Company infrastructure was maintained according to Company procedures and in good repair.

#### Customer Service Audit

In April 2019, Staff completed an audit of the customer service performance, practices, and procedures of the Company. As a result of the audit, Staff determined that the overall customer service practices and policies of the Company, as reviewed and observed by the team, comply with the applicable rules and regulations set forth by the Commission.

Staff reviewed the 3,359 customer contacts to the PUCO's call center for the period of January 1, 2019 through December 31, 2019 that were related to the Company's services. Customer concerns about disconnection issues or payment arrangements constituted the largest number of contacts, with 700 contacts for the period. Most customers were seeking information about pending disconnections, medical certificates, available payment arrangements and/or issues related to the Commission's winter reconnect order. The next largest category of contacts was billing issues, with 517 contacts. This category includes contacts regarding high bill concerns, back billing, or final/initial billing questions. Contacts regarding PIPP Plus and assistance programs were the third largest category, with 329 contacts. Two hundred and thirty-five customers contacted the Consumer Services Division before calling the Company. Most of these customers sought account information, and Staff directed these contacts back to the Company in order to allow the Company the first opportunity to respond to its customers. One hundred and twenty-three customers had service issues or inquiries, including 10 customers who voiced concerns about the quality of the Company's customer service.

Three hundred and seven customers called with questions regarding retail service providers. Of those, one hundred and seventy-seven were requesting information from Ohio's "Apples to Apples" shopping tool while residing in the Company's territory. It should also be noted that the Consumer Services Division reaches out to the Company for documentation around retail energy supplier pricing and enrollment data for other contacts within the Company footprint.

Forty-two contacts were customers commenting on actions or decisions made by the Commission as it relates to the Company's cases. Staff received 41 contacts regarding rates and tariffs during the time period reviewed.

The remaining contacts included miscellaneous items, such as questions or concerns regarding deposits, Company policies, or non-jurisdictional matters.

## **MANAGEMENT AND OPERATIONS REVIEW**

Ohio Revised Code 4909.154 states that the Commission shall consider the management policies, practices, and organization of public utilities in fixing the just, reasonable, and compensatory rates, joint rates, tolls, classification, charges, or rentals to be observed and charged for service by any public utility.

Ohio Adm.Code 4901-7-01, Appendix A requires medium and large utilities to include in their rate filings a concisely written summary of their management policies, practices, and organization. Among other things, the summary is to include a discussion of policy and goal setting, strategic and long range planning, organization structure, decision making and controlling, and communications for the Company's executive management process (Schedule S-4.1) as well as for functional areas common to most electric utility companies (Schedule S-4.2).

Staff routinely reviews Schedule S-4.1 and Schedule S-4.2, applicant performance, and various events relating to the Applicant's management. As a result of these review activities, Staff selects certain management topics for rate case reporting. In the current rate case, Staff reports on the processes used by the Company regarding capital spares and vegetation management.

### **Capital Spares**

Staff identified AEP Ohio's capital spares program as one area for a management and operations review. For purposes of this case, Staff specifically focused its review on the decision-making for the types and level of capital spares maintained by AEP Ohio in the area of spare transformers, mobile transformers and skids (transformers on trailers). Spare transformers and mobile transformers are used to provide power to customers in the event of equipment failure, potential overloading, or planned maintenance to the electric distribution substation. Due to their complex nature this type of plant tends to be a higher cost asset that has a long procurement time.

AEP Ohio's distribution transformers are under the direction of AEP Transmission. One of AEP Transmission's guiding tools to assist in managing the spares fleet is the Transmission Capital Asset Sparing Strategy (Sparing Strategy). Fundamentally, the Sparing Strategy utilizes the Poisson Binary Statistical Method (which uses the age, failure rate, and asset type as data inputs) to determine how many and what type of spares to maintain.

Staff reviewed the information provided for each spare transformer currently in service in Ohio. From a review of the type, age and location of AEP Ohio's spare substation transformers, it appears that AEP Ohio is maintaining the Spare Substation Transformer asset in a balanced manner overall. Even with the large purchase of spare transformers in the last three years, the overall spare transformer inventory seems to be in alignment with respect to the industry average service life of approximately 30 years. Staff does not believe it is necessary to replace spare transformers once they reach an average service life of 30 years as many are in service, and are ready to serve, that are well beyond their average service life (ASL). Staff recommends that AEP Transmission, and AEP Ohio, continue to rely on regular maintenance testing and results and the actual failure rate as a guide in the purchase of spare transformers.

Staff recommends that any spare should be subjected to actual testing before it is replaced. While the analytical tools employed by Ohio Power are reasonable predictors of assets that may have a higher risk of failure on average, the mobile or spare transformer should still be tested before it is replaced.



The Spare Strategy recently increased the failure risk by 2% for soil conditions and by 2% for acts of terror although no actual data or support for the increase is provided. Although the Spare Strategy indicates that the soil risk factor would be reassessed as more data becomes available, Staff notes that the risk factors were increased without incidents (data) to support the change. Therefore, Staff recommends that these two risk factors should be reduced back to original levels and reassessed once actual data becomes available.

Staff also reviewed the state of AEP Ohio's mobile transformer fleet. While overseen by AEP Transmission the mobile transformer fleet is not subject to Poisson modeling. Rather, historic usage rates and the useful life are used to determine the number of mobile transformers and skids that are purchased. AEP Ohio witness Ali further states that, "future mobile transformers and skids will be purchased on an as-need basis." AEP Ohio also recently engaged the services Ohio Transformer, a manufacturer, remanufacturer and repairer of transformers to provide an assessment of AEP Ohio's mobile fleet. AEP Ohio shared the results of the assessment provided by Ohio Transformer. According to AEP Ohio, the mobiles which were able to be repaired were repaired and those that were assessed to be beyond repair were retired. Staff notes that approximately 63 percent of the mobile fleet is older than the 30 average service life of a mobile. With such a recent assessment of AEP Ohio's mobile fleet demonstrating that many mobile transformers remain in good operating condition beyond the industry ASL, Staff recommends that AEP Ohio (AEP Transmission) not base its replacement of the mobiles on the ASL alone, but rather have the individual mobiles independently assessed and the results of the assessment be used to guide future purchases. Staff also notes that the more recently purchased mobile transformers are for Eastern Ohio substations, an area where there were very few mobile transformers. If AEP Ohio wishes to expand or adjust the criteria on which it bases the replacement or additions of mobile transformers, the change should be established within the Sparing Strategy document and such change noticed to Staff.

Staff also believes that the actual usage of the mobile transformers, by serial number, should be documented. Documentation should include start and end dates of each engagement, reason for the engagement, the substation of where the mobile was used and the name of the EDU engaging in the use of the mobile transformer if it is used by another AEP company.

Because the purchase of skids is done on the same basis of mobile transformers, Staff's recommendations regarding mobile transformers apply to skids.

### **Vegetation Management**

Another area selected for a management and operations review is AEP Ohio's vegetation management program. Staff's review encompassed the processes and controls surrounding the identification and confirmation of needed activity, its execution, and the associated accounting controls and cost recovery.

Currently, AEP Ohio has two distinct vegetation management programs; one associated with routine cyclical ROW circuit maintenance, and one associated with Danger Tree<sup>30</sup> removal. With respect to the

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<sup>30</sup> Danger Trees are defined by the March 1, 2107 AEP Accounting Policy Procedure as, "structurally unsound trees that are capable of striking electric supply lines or structures upon failure." AEP Forestry: Vegetation Management Goals, Procedures & Guidelines for Distribution and Transmission Line Clearance operations" dated August 1, 2017 defines Danger Tree as any tree on or off the right-of-way with the potential to contact an electric line and a Hazard Tree as a structurally unsound tree that could strike electric lines if it fell. AEP Ohio states that only Hazard Trees were removed as part of the DIR Danger Tree Program, i.e. only a tree that is structurally unsound that could strike electric lines if it fell is eligible for removal as a Danger Tree.

cyclical vegetation management program, AEP Ohio plans the circuits to be remediated and utilizes vegetation contractors to conduct the actual remediation. AEP Ohio instructs the vegetation contractor in how to document its activity and the standards it must use while engaged in the vegetation remediation activity. AEP Ohio utilizes timesheets and field audits to as the validation of the expenses associated with the contractor's work. Specifically, for end-to-end circuit clearing audits each circuit receives a complete audit to ensure the entire circuit has been worked. For quality and clearance audits two spans of the circuit's work will be audited. For routine vegetation maintenance activity, Staff finds AEP Ohio's control measures associated with the routine cyclical vegetation management program to be sufficient.

AEP Ohio also currently has a Danger Tree program associated with the removal of vegetation that may threaten AEP Ohio's distribution line equipment. Specifically, AEP Ohio's Danger Tree Program has been targeted to circuits which are experiencing a high SAIDI or have a high number of outages caused by trees outside the right of way (ROW). Going forward all vegetation management is to be expensed per the Stipulation in Case No. 18-230-EL-RDR, except that associated with the establishment of ROW or the establishment of the expanded ROW, Staff recommends that the AEP Ohio forestry contractors and forestry auditors continue to delineate not only the number of trees removed, but also whether the tree is a Danger Trees outside of the Right of Way and or whether it is a tree inside the Right of Way.

Currently, the delineation between capital and expense activities on end to end circuit clearing audits does not appear to be noted in the forester audit documentation provided to Staff. However, the number of trees removed does appear on the timesheets submitted to AEP Ohio . This is occurring because the end-to-end circuit clearing audits are focused on the total completion of the circuit as opposed to being a quality clearance audit. The number of trees removed was provided on the quality clearance audit documentation provided.

Currently, any Danger Tree is paint marked by a forestry contractor and entered onto a master sheet. This master sheet, a Smartsheet, identifies the circuits AEP Ohio intends to have remediated for Danger Trees. It contains information regarding the circuit planner, the forester contractor, the vegetation contractor, the estimated and actual start and end dates. What it does not contain is how many trees on each circuit were pre-identified as Danger Trees and the name of the entity which conducted such pre-identification. Staff recommends that this information be included on the Smartsheet. This will help ensure that only true definitional Danger Trees are removed. AEP Ohio also states that random visual audits are made of the Danger Tree removals and that both pre-and post-removal Danger Tree verification is performed by AEP forestry personnel during random crew visits and work inspections. However, AEP Ohio also notes that these random crew visits and audit inspections are not documented. Therefore, since AEP Ohio states that the Danger Trees are pre-identified, the inclusion of this data on the Smartsheet will provide AEP Ohio an opportunity to audit the pre-identification process and results in a meaningful manner. Post-identification audits should also be recorded on the AEP Ohio forester audit of the circuit work for quality control purposes.

Staff inquired as to the basis for declaring any vegetation greater than four inches in diameter at breast height (4" DBH) as a Danger Tree regardless of the location or height of the vegetation. AEP Ohio responded that this is rarely a distinct criteria used in its removal; that vegetation of this size is only removed if it is necessary to clear a path for another tree's removal; or potentially when in the process of clearing for expanded ROW trees of this size outside the ROW get removed. AEP Ohio states that if it believes a 4" DBH and could cause a power issue, it could also be removed. Staff notes that AEP Ohio has stated that it removes very few trees of 4" DBH outside the right of way. After considering the Company's

responses, Staff does not believe AEP Ohio has provided a credible reason for the blanket removal of 4" DBH vegetation as found in AEP Ohio's vegetation policy. However, Staff declines at this time to make a recommendation to AEP Ohio for a policy change other than the pre-identification of a 4" DBH outside ROW tree should be specifically noted on the Smartsheet. Although all vegetation costs, except for the establishment of a new or expanded ROW is to be expensed going forward, this documentation will help determine if unnecessary expenditures are occurring.

Staff also reviewed the accounting control for the capitalization of the two-herbicide application method associated with the initial establishment of a ROW where root suckering would necessitate the second application of herbicide. Specifically, Staff sought an understanding for how the second application of herbicide in the two-herbicide application method is confirmed to be associated with the first application and therefore capitalized. AEP Ohio, in its response, noted that the second application is rarely used, but that if it is used, it would be completed within two years of the establishment of ROW and that the activity is linked to the original work order. Staff believes this control process is adequate to address its concerns that a second stage of initial clearing is clearly linked to the establishment of new or expanded ROW. Lastly, Staff notes in the Stipulation approved in Case No. 18-230-EL-RDR. AEP Ohio committed to expensing all vegetation management costs other than those associated with the initial establishment of a ROW and the initial establishment of an expansion of the ROW.

Lastly, Staff recommends that AEP Ohio be required to submit to the Commission the updated Accounting Policy and Procedure that reflects the changes recommended by Staff as well as any documentation used by field personnel or auditors to implement the recommendations.

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Overall Financial Summary  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Schedule A-1  
Page 1 of 1

LINE NO	DESCRIPTION	SUPPORTING SCHEDULE REFERENCE	COMPANY PROPOSED AMOUNT	STAFF	
				LOWER BOUND	UPPER BOUND
(A)	(B)	(C)	(D)		
1	Rate Base as of Date Certain	B-1	\$ 3,105,270	\$ 2,902,965	\$ 2,902,965
2	Current Operating Income	C-1	\$ (66,763)	\$ 23,100	\$ 23,100
3	Earned Rate of Return (Line 2/Line 1)		-2.15%	0.80%	0.80%
4	Requested Rate of Return	D-1	7.90%	7.15%	7.70%
5	Required Operating Income (Line 1 x Line 4)		\$ 245,316	\$ 207,562	\$ 223,528
6	Operating Income Deficiency (Line 5 - Line 2)		\$ 312,079	\$ 184,462	\$ 200,429
7	Gross Revenue Conversion Factor	A-2	1,288	1.285	1.285
8	Revenue Deficiency (Line 6 x Line 7)		\$ 402,086	\$ 237,097	\$ 257,620
9	Revenue Increase Requested Before Mirror	C-1	\$ 402,086	\$ 237,097	\$ 257,620
10	Adjusted Operating Revenues	C-1	\$ 663,790	\$ 664,331	\$ 664,331
11	Revenue Requirements (Line 9 + 10)		\$ 1,065,876	\$ 901,429	\$ 921,951
12	Net Increase (Line 9 / Line 10)		61%	36%	39%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Computation of Gross Revenue Conversion Factor**  
**Test Year: Twelve Months Ended November 30, 2020**

**Schedule A-2**  
**Page 1 of 1**

LINE NO	DESCRIPTION	% OF INCREMENTAL GROSS REVENUES	
(A)	(B)	(C)	(D)
1	Gross Revenue		100.000%
2			
3	Less:		
4	Uncollectible Accounts Expense	0.480%	
5	Commercial Activities Tax	0.260% [a]	
6	PUCO Annual Assessment	0.000%	
7	OCC Annual Assessment	0.000%	0.740%
8			
9	Income Before Income Tax (Line 1- Line 7)		99.260%
10			
11	Less: State and Municipal Income Tax (0.7847% x 99.260%)		0.779%
12			
13	Income Before Federal Income Tax (Line 9- Line 11)		98.481%
14			
15	Less: Federal Income Tax (21% x 98.481364%)		20.681%
16			
17	Operating Income Percentage (Line 13- Line 15)		77.800%
18			
19	Gross Revenue Conversion Factor (100% / 77.800264%)		128.534%

State and Municipal Income Tax Rate  
Federal Income Tax Rate

0.7847%  
21% [a]

Notes:

[a] Statutory rate

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Jurisdictional Rate Base Summary**  
**As of December 31, 2019**  
**(\$000)**

**Work Paper Reference No(s):**  
Schedule B-2, B-3, B-5 & B-6

**Schedule B-1**  
**Page 1 of 1**

LINE NO.	RATE BASE COMPONENT	SUPPORTING SCHEDULE REFERENCE	COMPANY PROPOSED AMOUNT	STAFF PROPOSED AMOUNT
(A)	(B)	(C)	(D)	(E)
1	Plant in service			
2	Production	B-2	\$ 0	\$ 0
3	Transmission	B-2	0	0
4	Distribution	B-2	5,132,422	5,109,951
5	General	B-2	430,803	426,505
6	Other: Intangible	B-2	155,976	155,957
7	Total Plant in service		<u>5,719,201</u>	<u>5,692,413</u>
8				
9	Reserve for accumulated depreciation			
10	Production	B-3	0	0
11	Transmission	B-3	0	0
12	Distribution	B-3	(1,614,327)	(1,609,743)
13	General	B-3	(99,738)	(99,350)
14	Other: Intangible	B-3	<u>(73,211)</u>	<u>(73,209)</u>
15	Total Reserve for accumulated depreciation		<u>(1,787,276)</u>	<u>(1,782,302)</u>
16				
17	Net plant in service (Line 7 + Line 15)		<u>3,931,925</u>	<u>3,910,112</u>
18				
19	Construction work in progress 75% complete	B-4	n/a	n/a
20				
21	Working capital allowance	B-5	15,330	0
22				
23	Less: Contributions in aid of construction (a)	B-6	0	0
24				
25	Other rate base items	B-6	<u>(841,985)</u>	<u>(1,007,147)</u>
26				
27	Jurisdictional rate base (17) thru (26)		<u>\$ 3,105,270</u>	<u>\$ 2,902,965</u>

(a) Contributions in Aid of Construction are credited to Construction Work in Progress & Electric Plant in Service per FERC Order No. 490.

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Plant in Service Summary by Major Property Groupings**  
**As of December 31, 2019**  
**(\$000)**

**Work Paper Reference No(s):**  
Schedule B-2.1

**Schedule B-2**  
**Page 1 of 1**

LINE NO	MAJOR PROPERTY GROUPINGS	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURSDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1	Production	\$ 0	0.00 [a]	\$ 0	\$ 0	\$ 0
2	Transmission	2,683,371	0.00 [a]	0	0	0
3	Distribution	5,320,952	100.00 [b]	5,320,952	(211,001)	5,109,951
4	General	534,799	81.06 [b]	433,520	(7,014)	426,505
5	Common	0	0.00 [a]	0	0	0
6	Completed construction not classified	0	0.00 [a]	0	0	0
7	Other: Intangible	192,568	83.19 [b]	160,199	(4,242)	155,957
8	<b>TOTAL</b>	<b>\$ 8,731,691</b>		<b>\$ 5,914,671</b>	<b>\$ (222,258)</b>	<b>\$ 5,692,413</b>

[a] Allocation is NONDIST

[b] Allocation is DIRECT

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Plant in Service by Accounts and Subaccounts as of December 31, 2019  
Production Plant  
(\$000)

Work Paper Reference No(s):  
WP B-2.1a & b/u

Schedule B-2.1  
Page 1 of 5

LINE NO	ACCT NO	ACCOUNT TITLE	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURSDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1	Various	Production-Steam	\$ 0	0.00% [a]	\$ 0	\$ 0	\$ 0
2	Various	Production-Hydro	0	0.00% [a]	0	0	0
3	Various	Production-Other	0	0.00% [a]	0	0	0
4		<b>Total Production Plant</b>	<b>\$ 0</b>		<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>

[a] Allocation is NONDIST



OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Plant in Service by Accounts and Subaccounts as Of December 31, 2019  
Transmission Plant  
(\$000)

Work Paper Reference No(s):  
WP B-2.1a & b/u

Schedule B-2.1  
Page 2 of 5

LINE NO	ACCT NO	ACCOUNT TITLE	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURSIDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1	Various	Transmission	\$ 2,683,371	0.00% [a]	\$ 0	\$ 0	\$ 0
2		Total Transmission Plant	\$ 2,683,371		\$ 0	\$ 0	\$ 0

[a] Allocation is NONDIST

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Plant in Service by Accounts and Subaccounts as of December 31, 2019**  
**Distribution Plant**  
**(\$000)**

**Work Paper Reference No(s):**  
Schedule B-2.3, WP B-2.1a & b/u, Schedule B-2.2

**Schedule B-2.1**  
**Page 3 of 5**

LINE NO	ACCT NO	ACCOUNT TITLE	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURSDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1	360	Land and Land Rights	\$ 69,584	100.00% [a]	\$ 69,584	\$ (283)	\$ 69,301
2	361	Structures and Improvements	44,738	100.00% [a]	44,738	(796)	43,942
3	362	Station Equipment	887,134	100.00% [a]	887,134	(26,375)	860,759
4	363	Storage Battery Equipment	5,117	100.00% [a]	5,117	0	5,117
5	364	Poles, Towers and Fixtures	795,852	100.00% [a]	795,852	(635)	795,217
6	365	Overhead Conductors and Devices	894,823	100.00% [a]	894,823	(14,612)	880,210
7	366	Underground Conduit	334,308	100.00% [a]	334,308	(482)	333,826
8	367	Underground Conductors and Devices	732,263	100.00% [a]	732,263	(0)	732,263
9	368	Line Transformers	849,973	100.00% [a]	849,973	(2,172)	847,801
10	369	Services	345,050	100.00% [a]	345,050	(192)	344,858
11	370	Meters	95,062	100.00% [a]	95,062	(7,542)	87,521
12	370.16	AMI Meters	166,562	100.00% [a]	166,562	(157,911)	8,650
13	371	Installations on Customers' Premises	59,230	100.00% [a]	59,230	0	59,230
14	372	Leased Property on Customer's Premises	103	100.00% [a]	103	0	103
15	373	Street Light and Signal Systems	41,152	100.00% [a]	41,152	(0)	41,152
16		<b>Total Distribution Plant</b>	<b>\$ 5,320,952</b>		<b>\$ 5,320,952</b>	<b>\$ (211,001)</b>	<b>\$ 5,109,951</b>

[a] Allocation is DIRECT

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Plant in Service by Accounts and Subaccounts as of December 31, 2019**  
**General Plant**  
**(\$000)**

**Work Paper Reference No(s):**

Schedule B-2.3, WP B-2.1a & b/u, Schedule B-2.2

**Schedule B-2.1**

**Page 4 of 5**

LINE NO	ACCT NO	ACCOUNT TITLE	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURISDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1	389	Land and Land Rights	\$ 13,632	96.49% [a]	\$ 13,154	\$ (14)	\$ 13,140
2	390	Structures and Improvements	311,124	80.99% [a]	251,972	(1,032)	250,940
3	391	Office Furniture and Equipment	22,954	58.71% [a]	13,478	(142)	13,335
4	392	Transportation Equipment	128	9.92% [a]	13	0	13
5	393	Stores Equipment	1,095	86.82% [a]	950	0	950
6	394	Tools, Shop and Garage Equipment	49,800	59.32% [a]	29,543	0	29,543
7	395	Laboratory Equipment	348	31.22% [a]	109	0	109
8	396	Power Operated Equipment	7	73.04% [a]	5	0	5
9	397	Communication Equipment	127,449	92.58% [a]	117,989	(4,082)	113,907
10	397.16	AMI Communication Equipment	2,853	100.00% [a]	2,853	(618)	2,235
11	398	Miscellaneous Equipment	4,631	57.89% [a]	2,681	(1,126)	1,555
12	399	Other Tangible Property	(0)	0.00% [a]	0	0	0
13	399.1	Asset Retirement Costs for General Plant	776	99.60% [a]	773	0	773
14		<b>Total General Plant</b>	<b>\$ 534,799</b>		<b>\$ 433,520</b>	<b>\$ (7,014)</b>	<b>\$ 426,505</b>

[a] Allocation is DIRECT

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Plant in Service by Accounts and Subaccounts as of December 31, 2019  
Intangible Plant  
(\$000)

Work Paper Reference No(s):  
Schedule B-2.3, WP B-2.1a & b/u

Schedule B-2.1  
Page 5 of 5

LINE NO	ACCT NO	ACCOUNT TITLE	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURSDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1	301	Organization	\$ 5	71.23% [a]	\$ 3	\$ 0	\$ 3
2	302	Franchises and Consents	641	100.00% [a]	641	0	641
3	303	Miscellaneous Intangible Plant	191,922	83.13% [a]	159,555	(4,242)	155,312
4		<b>Total Intangible Plant</b>	<b>\$ 192,568</b>		<b>\$ 160,199</b>	<b>\$ (4,242)</b>	<b>\$ 155,957</b>

[a] Allocation is DIRECT

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Adjustments to Plant in Service**  
**December 31, 2019**  
**(\$000)**

**Work Paper Reference No(s):**  
WPB-2.2a; WPB-2.2b; WPB-2.2c & WPB-2.2d

**Schedule B-2.2**  
**Page 1 of 1**

LINE NO	ACCT NO	ACCOUNT TITLE	TOTAL COMPANY ADJUSTED	ALLOCATION %	JURSDICTIONAL ADJUSTMENT
(A)	(B)	(C)	(D)	(E)	(F)
1	301	Organization	\$ 0	100%	[a] \$ 0
2	302	Franchises and Consents	0	100%	0
3	303	Miscellaneous Intangible	(4,242)	100%	(4,242)
4	360	Land and Land Rights	(283)	100%	(283)
5	361	Structures and Improvements	(796)	100%	(796)
6	362	Station Equipment	(21,634)	100%	(21,634)
7	362.16	Station Equipment - gridsmart	(4,741)	100%	(4,741)
8	363	Storage Battery Equipment	0	100%	0
9	364	Poles Towers and Fixtures	(635)	100%	(635)
10	365	Overhead Conductors	(14,612)	100%	(14,612)
11	366	Line Transformers	(482)	100%	(482)
12	367	Underground conduit	(0)	100%	(0)
13	368	Line Transformers	(2,172)	100%	(2,172)
14	369	Services	(192)	100%	(192)
15	370	Meters	(7,542)	100%	(7,542)
16	370.16	AMI Meters	(157,911)	100%	(157,911)
17	370.2	AMI Meters	0	100%	0
18	371	Installations on Customers' Premises	0	100%	0
19	372	Leased Property on Customer's Premises	0	100%	0
20	373	Street Lighting	(0)	100%	(0)
21	389	Land and Land Rights	(14)	100%	(14)
22	390	Structures and Improvements	(1,032)	100%	(1,032)
23	391	Office Furniture	(142)	100%	(142)
24	392	Transportation Equipment	0	100%	0
25	393	Stores Equipment	0	100%	0
26	394	Tools, Shop and Garage Equipment	0	100%	0
27	395	Laboratory Equipment	0	100%	0
28	396	Power Operated Equipment	0	100%	0
29	397	Communication Equipment	(4,082)	100%	(4,082)
30	397.16	Communication Equipment	(618)	100%	(618)
31	398	Miscellaneous Equipment	(1,126)	100%	(1,126)
32	399	Other Tangible Property	0	100%	0
33	399.1	Asset Retirement Costs for General Plant	0	100%	0
34		<b>Total</b>	<b>\$ (222,258)</b>		<b>\$ (222,258)</b>

[a] Allocation is ALLDIST

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Lease Property  
(Total Company)  
As of December 31, 2019

Work Paper Reference No(s):

Schedule B-2.4  
Page 1 of 1

IDENTIFICATION OR REFERENCE NO	DESCRIPTION OF TYPE AND USE OF PROPERTY	NAME OF LEASEE	FREQUENCY OF PAYMENT	AMOUNT OF LEASE PAYMENT	DOLLAR* VALUE OF PROPERTY INVOLVED	EXPLAIN METHOD OF CAPITALIZATION	INCLUDED IN RATE BASE (YES/NO)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
4224	Transportation Equipment	Citizens Asset Finance Inc -Op Co	Monthly	36,856.26	3,433,108.09	FERC	No
4228	Office Furniture, Equipment	Huntington Bank	Monthly	598.52	18,576.93	FERC	No
4228	Office Equip - Computers	Huntington Bank	Monthly	25,325.74	1,363,115.75	FERC	No
4228	Transportation Equipment	Huntington Bank	Monthly	514.33	46,148.51	FERC	No
4228	Communication Equipment	Huntington Bank	Monthly	92,242.75	5,046,380.43	FERC	No
4774	Office Equip - Computers	Banc of America Leasing	Monthly	1,031.86	2,361.98	FERC	No
4774	Transportation Equipment	Banc of America Leasing	Monthly	195,657.38	14,619,472.67	FERC	No
4774	Communication Equipment	Banc of America Leasing	Monthly	2,019.60	-	FERC	No
5987	Office Equip - Computers	Huntington Technology Finance Inc	Monthly	23,681.88	1,295,754.98	FERC	No
6167	Office Furniture, Equipment	FRANKLIN IMAGING - REPROMAX INC	Monthly	395.00	22,523.87	FERC	No
LMP1115Cap	Structures and Improvements	Smart Family Partnership	Monthly	7,000.00	650,000.66	FERC	No

\* If not available, an estimate shall be furnished.

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Reserve for Accumulated Depreciation and Amortization  
As of December 31, 2019  
(\$000)

Work Paper Reference No(s):  
Schedule B-2.1

Schedule B-3  
Page 1 of 4

LINE NO	MAJOR PROPERTY GROUPINGS & ACCOUNT TITLES	TOTAL COMPANY PLANT INVESTMENT	RESERVE FOR ACCUMULATED DEPRECIATION AT DATE CERTAIN			
			TOTAL COMPANY	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURISDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1	Distribution	\$ 5,320,952	\$ 1,635,570	\$ 1,635,570	\$ (25,827)	\$ 1,609,743
2	General	534,799	111,931	99,837	(487)	99,350
3	Other: Intangible	192,568	90,552.45	74,365	(1,156)	73208.55506
4	<b>TOTAL</b>	<b>\$ 6,048,320</b>	<b>\$ 1,838,054</b>	<b>\$ 1,809,771</b>	<b>\$ (27,470)</b>	<b>\$ 1,782,302</b>

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Reserve for Accumulated Depreciation and Amortization**  
**As of December 31, 2019**  
**Distribution Plant**  
**(\$000)**

Work Paper Reference No(s):

Schedule B-3  
Page 2 of 4

LINE NO	ACCT NO	MAJOR PROPERTY GROUPINGS & ACCOUNT TITLES	TOTAL COMPANY PLANT INVESTMENT	RESERVE FOR ACCUMULATED DEPRECIATION AT DATE CERTAIN					
				TOTAL COMPNAY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURSDICTION	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	
1	360	Land and Land Rights	\$ 69,584	\$ 0	0.00% [a]	\$ 0	\$ 0	\$ 0	0
2	361	Structures and Improvements	44,738	10,811	100.00% [a]	10,811	(3)	10,809	
3	362	Station Equipment	887,134	215,145	100.00% [a]	215,145	(282)	214,863	
4	363	Storage Battery Equipment	5,117	3,897	100.00% [a]	3,897	0	3,897	
5	364	Poles, Towers and Fixtures	795,852	424,217	100.00% [a]	424,217	(6)	424,211	
6	365	Overhead Conductors and Devices	894,823	201,559	100.00% [a]	201,559	(394)	201,165	
7	366	Underground Conduit	334,308	60,001	100.00% [a]	60,001	(4)	59,997	
8	367	Underground Conductors and Devices	732,263	252,425	100.00% [a]	252,425	(0)	252,425	
9	368	Line Transformers	849,973	264,903	100.00% [a]	264,903	(39)	264,864	
10	369	Services	345,050	150,676	100.00% [a]	150,676	(20)	150,656	
11	370	Meters	95,062	(24,429)	100.00% [a]	(24,429)	(4,260)	(28,690)	
12	370.16	AMI Meters	166,562	27,399	100.00% [a]	27,399	(20,819)	6,580	
13	371	Installations on Customers' Premises	59,230	45,946	100.00% [a]	45,946	0	45,946	
14	372	Leased Property on Customer's Premises	103	77	100.00% [a]	77	0	77	
15	373	Street Light and Signal Systems	41,152	22,750	100.00% [a]	22,750	(0)	22,750	
16	RWIP	Retirement Work in Progress	0	(19,808)	100.00% [a]	(19,808)	0	(19,808)	
17		<b>Total Distribution Plant</b>	<b>\$ 5,320,952</b>	<b>\$ 1,635,570</b>		<b>\$ 1,635,570</b>	<b>\$ (25,827)</b>	<b>\$ 1,609,743</b>	

[a] Allocation is DIRECT



OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Reserve for Accumulated Depreciation and Amortization  
As of December 31, 2019  
General Plant  
(\$000)

Work Paper Reference No(s):

Schedule B-3  
Page 3 of 4

LINE NO	ACCT NO	MAJOR PROPERTY GROUPINGS & ACCOUNT TITLES	TOTAL COMPANY PLANT INVESTMENT	RESERVE FOR ACCUMULATED DEPRECIATION AT DATE CERTAIN				
				TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURSDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1	389	Land and Land Rights	\$ 13,632	\$ 0	0.00% [a]	\$ 0	\$ 0	\$ 0
2	390	Structures and Improvements	311,124	56,584	94.66% [a]	53,563	(127)	53,436
3	391	Office Furniture and Equipment	22,954	5,625	80.97% [a]	4,555	(8)	4,547
4	392	Transportation Equipment	128	87	89.88% [a]	78	0	78
5	393	Stores Equipment	1,095	349	86.91% [a]	304	0	304
6	394	Tools, Shop and Garage Equipment	49,800	18,680	76.04% [a]	14,204	(15)	14,190
7	395	Laboratory Equipment	348	272	95.54% [a]	260	0	260
8	396	Power Operated Equipment	7	6	78.13% [a]	4	0	4
9	397	Communication Equipment	127,449	26,756	90.03% [a]	24,090	(171)	23,919
10	397.16	AMI Communication Equipment	2,853	1,804	100.00% [a]	1,804	(47)	1,757
11	398	Miscellaneous Equipment	4,631	2,124	61.88% [a]	1,314	(119)	1,195
12	399	Other Tangible Property	(0)	0	0.00% [a]	0	0	0
13	399.1	Asset Retirement Costs for General Plant	776	320	99.03% [a]	317	0	317
14	RWIP	Retirement Work in Progress	0	(675)	97.16% [a]	(656)	0	(656)
15		<b>Total General Plant</b>	<b>\$ 534,799</b>	<b>\$ 111,931</b>		<b>\$ 99,837</b>	<b>\$ (487)</b>	<b>\$ 99,350</b>

[a] Allocation is DIRECT

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Reserve for Accumulated Depreciation and Amortization  
As of December 31, 2019  
Intangible Plant  
(\$000)

Work Paper Reference No(s):

Schedule B-3  
Page 4 of 4

LINE NO	ACCT NO	MAJOR PROPERTY GROUPINGS & ACCOUNT TITLES	TOTAL COMPANY PLANT INVESTMENT	RESERVE FOR ACCUMULATED DEPRECIATION AT DATE CERTAIN				
				TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURSDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1	301	Organization	\$ 5	\$ 0	0.00% [a]	\$ 0	\$ 0	\$ 0
2	302	Franchises and Consents	641	641	100.00% [a]	641	0	641
3	303	Miscellaneous Intangible Plant	191,922	89,911	82.00% [a]	73,724	(1,156)	72,567
4		<b>Total Intangible Plant</b>	<b>\$ 192,568</b>	<b>\$ 90,552</b>		<b>\$ 74,365</b>	<b>\$ (1,156)</b>	<b>\$ 73,209</b>

[a] Allocation is DIRECT

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Adjustments to the Depreciation Reserve  
December 31, 2019  
(\$000)

Work Paper Reference No(s):  
WPB-3.1a; WPB-3.1b; WPB-3.1c & WPB-3.1d

Schedule B-3.1  
Page 1 of 1

LINE NO	ACCT NO	ACCOUNT TITLE	TOTAL COMPANY ADJUSTED	ALLOCATION %	JURSIDICTIONAL ADJUSTMENT
(A)	(B)	(C)	(D)	(E)	(F)
1	301	Organization	\$ 0	100% [a]	\$ 0
2	302	Franchises and Consents	0	100%	0
3	303	Miscellaneous Intangible	(1,156)	100%	(1,156)
4	360	Land and Land Rights	0	100%	0
5	361	Structures and Improvements	(3)	100%	(3)
6	362	Station equipment	(228)	100%	(228)
7	362.16	Station equipment - gridsmart	(55)	100%	(55)
8	363	Storage Battery Equipment	0	100%	0
9	364	Poles Towers and Fixtures	(6)	100%	(6)
10	365	Overhead conductors	(394)	100%	(394)
11	366	Line Transformers	(4)	100%	(4)
12	367	Underground conduit	(0)	100%	(0)
13	368	Line Transformers	(39)	100%	(39)
14	369	Services	(20)	100%	(20)
15	370	Meters	(4,260)	100%	(4,260)
16	370.16	AMI Meters	(20,819)	100%	(20,819)
17	370.2	AMI Meters	0	100%	0
18	371	Installations on Customers' Premises	0	100%	0
19	372	Leased Property on Customer's Premises	0	100%	0
20	373	Street lighting	(0)	100%	(0)
21	389	Land and Land Rights	0	100%	0
22	390	Structures and Improvements	(127)	100%	(127)
23	391	Office furniture	(8)	100%	(8)
24	392	Transportation Equipment	0	100%	0
25	393	Stores Equipment	0	100%	0
26	394	Tools, Shop and Garage Equipment	(15)	100%	(15)
27	395	Laboratory Equipment	0	100%	0
28	396	Power Operated Equipment	0	100%	0
29	397	Communication equipment	(171)	100%	(171)
30	397.16	Communication equipment	(47)	100%	(47)
31	398	Miscellaneous Equipment	(119)	100%	(119)
32	399	Other Tangible Property	0	100%	0
33	399.1	Asset Retirement Costs for General Plant	0	100%	0
34		<b>Total</b>	<b>\$ (27,470.07)</b>		<b>\$ (27,470.07)</b>

[a] Allocation is ALLDIST

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Depreciation Accrual Rates and**  
**Jurisdictional Reserve Balances by Accounts**  
**As of December 31, 2019**  
**Distribution Plant**

**Work Paper Reference No(s):**  
Schedule B-2.1\_D, Schedule B-3 Merge, WP B-3.2a Merge

**Schedule B-3.2**  
**Page 1 of 3**

LINE NO	ACCT NO	ACCOUNT TITLE	ADJUSTED JURSDICTION		CURRENT ACCRUAL RATE*	CALCULATED DEPRECIATION EXPENSE	% NET SALVAGE*	AVERAGE SERVICE LIFE*	CURVE FORM*	PROPOSED ACCRUAL RATE*	CALCULATED DEPRECIATION EXPENSE	% NET SALVAGE*	AVERAGE SERVICE LIFE*	CURVE FORM*
			PLANT INVESTMENT	RESERVE BALANCE										
(A)	(B)	(C)	(D)	(E)	(F)	(G)=(D)x(F)	(H)	(I)	(J)	(K)	(L)=(D)x(K)	(M)	(N)	(O)
1	360	Land and Land Rights	\$ 69,301	\$ 0	0.00%	\$ 0	(a)	(a)	(a)	0.00%	\$ 0	(a)	(a)	(a)
2	361	Structures and Improvements	43,942	10,809	1.77%	778	-15%	65	R3.0	1.74%	766	-22%	70	R2.0
3	362	Station Equipment	860,759	214,863	2.47%	21,261	-11%	45	R1.0	2.05%	17,685	-13%	55	L0.0
4	363	Storage Battery Equipment	5,117	3,897	6.67%	341	0%	15	SQ	6.67%	341	0%	15	SQ
5	364	Poles, Towers and Fixtures	795,217	424,211	5.19%	41,272	-87%	36	R0.5	4.92%	39,133	-87%	38	R0.5
6	365	Overhead Conductors and Devices	880,210	201,165	3.63%	31,952	-16%	32	L0.0	3.69%	32,458	-18%	32	L0.0
7	366	Underground Conduit	333,826	59,997	1.56%	5,208	0%	64	R2.5	1.67%	5,564	0%	60	R3.0
8	367	Underground Conductors and Devices	732,263	252,425	2.60%	19,039	-12%	43	R2.0	2.26%	16,549	-13%	50	R1.5
9	368	Line Transformers	847,801	264,864	3.80%	32,216	-14%	30	L0.0	3.63%	30,733	-16%	32	L0.0
10	369	Services	344,858	150,656	3.27%	11,277	-34%	41	R0.5	3.12%	10,747	-34%	43	R0.5
11	370	Meters	87,521	(28,690)	4.07%	3,562	-10%	27	S1.0	9.82%	8,593	-8%	11	L1.5
12	370.16	AMI Meters	8,650	6,580	7.33%	634	-10%	15	SQ	7.20%	623	-8%	15	S0.5
13	371	Installations on Customers' Premises	59,230	45,946	9.14%	5,414	-28%	14	L0.0	8.53%	5,054	-28%	15	L0.0
14	372	Leased Property on Customer's Premises	103	77	2.50%	3	0%	40	R0.5	2.27%	2	0%	44	R0.5
15	373	Street Light and Signal Systems	41,152	22,750	6.20%	2,551	-24%	20	L0.0	5.64%	2,319	-24%	22	L0.0
16	<b>Total Distribution Plant</b>		<b>\$ 5,109,951</b>	<b>\$ 1,629,551</b>		<b>\$ 175,507</b>					<b>\$ 170,567</b>			

Notes:

(a) Account 360 Land and Land Rights are not depreciable in Ohio.  
(K) (100%-NS%)/ASL

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Depreciation Accrual Rates and**  
**Jurisdictional Reserve Balances by Accounts**  
**As of December 31, 2019**  
**General Plant**

**Work Paper Reference No(s):**  
Schedule B-2.1, Schedule B-3 Merge, WP B-3.2a Merge

**Schedule B-3.2**  
**Page 2 of 3**

LINE NO	ACCT NO	ACCOUNT TITLE	ADJUSTED JURSDICTION		CURRENT ACCRUAL RATE*	CALCULATED DEPRECIATION EXPENSE	% NET SALVAGE*	AVERAGE SERVICE LIFE*	CURVE FORM*	PROPOSED ACCRUAL RATE*	CALCULATED DEPRECIATION EXPENSE	% NET SALVAGE*	AVERAGE SERVICE LIFE*	CURVE FORM*
			PLANT INVESTMENT	RESERVE BALANCE										
(A)	(B)	(C)	(D)	(E)	(F)	(G)=(D)x(F)	(H)	(I)	(J)	(K)	(L)=(D)x(K)	(M)	(N)	(O)
1	389	Land and Land Rights	\$ 13,140	\$ 0	0.00%	\$ 0	(a)	(a)	(a)	0.00%	\$ 0	(a)	(a)	(a)
2	390	Structures and Improvements	250,940	53,436	2.17%	5,445	-2%	47	L0.0	2.10%	5,270	-5%	50	S0.0
3	391	Office Furniture and Equipment	13,335	4,547	3.33%	444	0%	30	SQ	3.33%	445	0%	30	SQ
4	392	Transportation Equipment	13	78	2.00%	0	0%	50	SQ	2.00%	0	0%	50	SQ
5	393	Stores Equipment	950	304	2.94%	28	0%	34	SQ	2.94%	28	0%	34	SQ
6	394	Tools, Shop and Garage Equipment	29,543	14,190	3.53%	1,043	-6%	30	SQ	3.53%	1,044	-6%	30	SQ
7	395	Laboratory Equipment	109	260	3.57%	4	0%	28	SQ	3.57%	4	0%	28	SQ
8	396	Power Operated Equipment	5	4	3.85%	0	0%	26	SQ	3.85%	0	0%	26	SQ
9	397	Communication Equipment	113,907	23,919	2.86%	3,258	0%	35	SQ	3.00%	3,417	-5%	35	SQ
10	397.16	AMI Communication Equipment	2,235	1,757	6.67%	149	0%	15	SQ	7.00%	156	-5%	15	SQ
11	398	Miscellaneous Equipment	1,555	1,195	4.00%	62	0%	25	SQ	4.00%	62	0%	25	SQ
12	399	Other Tangible Property	0	0	0.00%	0	N/A	N/A	N/A	0.00%	0	N/A	N/A	N/A
13	399.1	Asset Retirement Costs for General Plant	773	317	0.00%	0	(b)	(b)	(b)	0.00%	0	(b)	(b)	(b)
14	<b>Total General Plant</b>		<b>\$ 426,505</b>	<b>\$ 100,006</b>		<b>\$ 10,434</b>					<b>\$ 10,426</b>			

Notes:

(a) Account 389 Land and Land Rights are not depreciable in Ohio.

(b) There was no balance or rate approved for this account in the Company's last rate case. Asset Retirement Obligations (ARO) in this account represent asbestos at general building locations. The ARO are depreciated over the life of the related asset per FERC Order No. 631 and the rate shown above represents an average rate for the obligations.

\*Columns (F), and (H) through (J) shall represent depreciation values as prescribed by this commission for booking purposes. If such values have not been prescribed by this commission, the utility shall so indicate on schedule by footnote.

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Depreciation Accrual Rates and  
Jurisdictional Reserve Balances by Accounts  
As of December 31, 2019  
Intangible Plant

Work Paper Reference No(s):  
Schedule B-2.1\_I, Schedule B-3\_I

Schedule B-3.2  
Page 3 of 3

LINE NO	ACCT NO	ACCOUNT TITLE	ADJUSTED JURSDICTION		CURRENT ACCRUAL RATE*	CALCULATED DEPRECIATION EXPENSE	% NET SALVAGE*	AVERAGE SERVICE LIFE*	CURVE FORM*
			PLANT INVESTMENT	RESERVE BALANCE					
(A)	(B)	(C)	(D)	(E)	(F)	(G)=(D)x(F)	(H)	(I)	(J)
1	301	Organization	\$ 3	\$ 0	0.00%	\$ 0	(a)	(a)	(a)
2	302	Franchises and Consents	641	641	0.00%	0	(b)	(b)	(b)
3	303	Miscellaneous Intangible Plant	155,312	72,567	15.23%	23,654	(c)	(c)	(c)
4	<b>Total Intangible Plant</b>		<b>\$ 155,957</b>	<b>\$ 73,209</b>		<b>\$ 23,654</b>			

Notes:

- (a) This account is not currently being amortized and the Company is not requesting that it be amortized in this rate proceeding.
- (b) This account is fully amortized and the Company is not requesting any further amortization in
- (c) Most of the balance in account 303 is represented by capital software that is being amortized over an estimated 5 year life at 20%. Since some of the capital software will soon be fully depreciated, the rate provided above is an average rate calculated using an average asset balance from January 2019 and December 2019 and amortization expense for the twelve months ended December 2019. The capital software amortization rate has not been prescribed by this

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Construction Work in Progress  
As of December 31, 2019  
(\$000)

Work Paper Reference No(s):

Schedule B-4  
Page 1 of 1

LINE NO	PROJECT NO	DESCRIPTION OF PROJECT	ACCUMULATED COSTS			ALLOCATION %	TOTAL JURISDICTIONAL COST AT DATE CERTAIN	ESTIMATED PHYSICAL PERCENT COMPLETION
			CONSTRUCTION DOLLARS	AFDC CAPITALZIED	TOTAL COST			
(A)	(B)	(C)	(D)	(E)	(F)=(D)+(E)	(G)	(H)	(I)

The Company has not included any Construction Work in Progress in this Rate Case

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Construction Work in Progress - Percent Complete (Time)**  
**As of December 31, 2019**

**Work Paper Reference No(s):**

**Schedule B-4.1**  
**Page 1 of 1**

LINE NO	PROJECT NO	DATE CONSTRUCTION WORK BEGAN	ESTIMATED PROJECT COMPLETION DATE	ELAPSED DAYS: BEGINNING TO DATE CERTAIN	ELAPSED DAYS: BEGINNING TO ESTIMATED COMPLETION	DATE CERTAIN % COMPLETION
(A)	(B)	(C)	(D)	(E)	(F)	(G)=(E)/(F)

The Company has not included any Construction Work in Progress in this Rate Case



OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Construction Work in Progress - Percent Complete (Dollars)  
As of December 31, 2019

Work Paper Reference No(s):

Schedule B-4.2  
Page 1 of 1

LINE NO	PROJECT NO	MOST RECENT BUDGET ESTIMATE				PROJECT EXPENDITURES AS OF DATE CERTAIN		DATE CERTAIN % COMPLETION	
		CONSTRUCTION DOLLARS	AFUDC	TOTAL	CONSTRUCTION DOLLARS TRENDED	CONSTRUCTION DOLLARS	CONSTRUCTION DOLLARS TRENDED	CONSTRUCTION DOLLARS	CONSTRUCTION DOLLARS TRENDED
(A)	(B)	(C)	(D)	(E)=(C)+(D)	(F)	(G)	(H)	(I)=(G)/(C)	(J)=(H)/(F)

The Company has not included any Construction Work in Progress in this Rate Case

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Allowance for Working Capital  
As of Thirteen Months Ending December 31, 2020

Work Paper Reference No(s):

Schedule B-5  
Page 1 of 1

LINE NO	WORKING CAPITAL COMPONENT	DESCRIPTION OF METHODOLOGY USED TO DETERMINE JURISDICTIONAL REQUIREMENT	WORKING PAPER REFERENCE NO	TOTAL COMPANY	ALLOCATION %	JURISDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1	Revenue/Expense Lag	None Requested		\$ -		\$ -
2						
3	<u>Working Capital - Non Cash:</u>					
4						
5	M&S Held for Normal Operations	13 month average balance	B-5.1	0	58.78%	0
6		less allowance for new				
7		construction				
8						
9	PIP Uncollectibles Balance	13 month average balance	B-5.1	0	100.00%	0
10						
11	Other (Specify & List)					
12	Uncollectibles Balance	13 month average balance	B-5.1	0	0.00%	0
13						
14	Prepayments	13 month average balance	B-5.1	0	0.00%	0
15						
16	Total Working Capital			<u>\$ 0</u>		<u>\$ 0</u>

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Other Rate Base Items Summary**  
**As of December 31, 2019**  
**(\$000)**

**Work Paper Reference No(s):**  
WP B-6a thru d, WP B-6e

**Schedule B-6**  
**Page 1 of 1**

LINE NO	ACCOUNT NO	DESCRIPTION	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURSDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1		Contributions in Aid of Construction (Note 1)	\$ 0	0.00%	\$ 0	\$ 0	\$ 0
2							
3		<b><u>OTHER RATE BASE ITEMS</u></b>					
4	235	Customers' Deposits	(55,112)	100.00% [a]	(55,112)	0	(55,112)
5							
6	252	Customers' Advances for Construction	0	0.00% [a]	0	0	0
7							
8	255	Investment Tax Credits: (Note 2)					
9		Pre-1971 3% Credit					
10		1971 4% Credit					
11		1975 6% Add'l Credit					
12		1981 10% Credit on Recovery Property	(1)				
13		ITC Tax Benefits Sold					
14		Other (Specify and list separately)					
15		TOTAL Investment Tax Credits	<u>(1)</u>	104.18% [a]	(1)	0	(1)
16							
17		Deferred Income Taxes:					
18	190	Debits	87,048 3	81.63% [a]	71,055	0	71,055
19	281	Accel Amort Prop	0	0.00% [a]	0		0
20	282	Utility Prop	(1,323,620) 3	68.59% [a]	(907,826)		(907,826)
21	283	Credits	(138,512)	83.21% [a]	(115,262)		(115,262)
22		TOTAL Deferred Income Taxes	<u>(1,375,084)</u>		<u>(952,033)</u>	<u>0</u>	<u>(952,033)</u>
23							
24		<u>Other (Specify and list separately)</u>					
25							
26	1650010	Prepaid Pension	190,089	86.89% [a]	165,161	(165,161)	0
27							
28		TOTAL Other Rate Base Items	<u>\$ (1,240,108)</u>		<u>\$ (841,986)</u>	<u>\$ (165,161)</u>	<u>\$ (1,007,147)</u>

**Notes:**

- 1 Contributions in Aid of construction are credited to Construction Work In Progress & Electric Plant In Service per FERC Order 490
- 2 Steam Utilities shall list separately and show 7% credit, and 10% credit.
- 3 Presentation difference between balance sheet and tax system.

[a] Allocation is DIRECT

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Adjustments to Other Rate Base Items  
As of December 31, 2019

Work Paper Reference No(s):

Schedule B-6.1  
Page 1 of 1

LINE NO	ACCOUNT NO	ACCOUNT TITLE	TOTAL COMPANY ADJUSTMENT	ALLOCATION %	JURSIDICTIONAL ADJUSTMENT
(A)	(B)	(C)	(D)	(E)	(F)

Adjustment Title

Total Adjustment

NONE

Description and Purpose of Adjustment

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Contributions in Aid of Construction by Accounts and Subaccounts  
As of December 31, 2019  
(\$000)

Work Paper Reference No(s):

Schedule B-6.2  
Page 1 of 1

LINE NO	ACCOUNT NO	ACCOUNT TITLE	TOTAL COMPANY	ALLOCATION %	ALLOCATED TOTAL	ADJUSTMENTS	ADJUSTED JURSIDICTION
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)

Netted against gross plant per FPC Order No. 490

TOTAL			\$0.00		\$0.00	\$0.00	\$0.00
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**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Jurisdictional Allocation Factors**  
**Rate Base and Operating Income**  
**As of December 31, 2019**

Work Paper Reference No(s):  
Schedule B-7.1

Schedule B-7  
Page 1 of 2

LINE NO	ACCOUNT NO	ACCOUNT TITLE	ALLOCATION CODE/ DESCRIPTION	JURSDICTIONAL ALLOCATION FACTOR	DESCRIPTION OF FACTORS AND / OR METHOD OF ALLOCATION
(A)	(B)	(C)	(D)	(E)	(F)
<u>Rate Base</u>					
1	Various	100% Jurisdictional Items	ALLDIST	100.0000%	
2	Various	Non-Jurisdictional Items	NONDIST	0.0000%	
3	Various	Based upon the relationship reflected in the Functional books and records	DIRECT		
<u>Operating Income</u>					
1	Various	100% Jurisdictional Items	ALLDIST	100.0000%	
2	Various	Non-Jurisdictional Items	NONDIST	0.0000%	
3	403	Depreciation - Distribution Plant	DEPR1	100.0000%	[A]
4	403	Depreciation - General Plant	DEPR2	74.5330%	[A]
5	404	Amortization - General Plant	AMORT1	100.0000%	[A]
6	404	Amortization - Intangible Plant	AMORT2	88.8095%	[A]
7	408.1	Franchise Tax	OTHTAX1	100.0000%	[A]
8	408.1	Commercial Activity Taxes	OTHTAX2	99.9103%	[A]
9	408.1	Payroll Taxes	OTHTAX3	99.9822%	[A]
10	408.1	Property Taxes	OTHTAX4	70.0425%	[A]
11	408.1	Regulatory Fees	OTHTAX5	100.0000%	[A]
12	408.1	Miscellaneous Taxes	OTHTAX6	100.0000%	[A]
13	408.1	Revenue-kwhr Taxes	OTHTAX7	100.0000%	[A]
14	451	Misc. Service Revenues	OTHREV1	98.8092%	[A]
15	454.1	Rent from Electric Property - Assoc.	OTHREV2	64.8278%	[A]
16	454.2	Rent from Electric Property - Non Assoc.	OTHREV3	3.6665%	[A]
17	454.4	Rent from Electric Property - ABD	OTHREV4	25.5366%	[A]
18	454.5	Rent from Electric Property - Pole Attach.	OTHREV5	98.8029%	[A]
19	456.0001, 456.0012	4560001+4560012 Other Electric Rev - Distribution	OTHREV6	100.0000%	[A]
20	4560007	4560007 Other Electric Rev - DSM Program	OTHREV7	100.0000%	[A]
21	4560015	4560015 Other Electric Rev - ABD	OTHREV8	83.4832%	[A]
22	4560041	4560041 Misc Rev - NonAffiliated	OTHREV9	0.8333%	[A]
23	4561027	4561027 PJM Tranms Dist/Meter - NonAff	OTHREV10	100.0000%	[A]
24	580	Operation Supervision and Engineering	ALLDIST	100.0000%	100% Jurisdictional Items
25	581	Load Dispatching	ALLDIST	100.0000%	100% Jurisdictional Items
26	582	Station Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
27	583	Overhead Line Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
28	584	Underground Line Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
29	585	Street Lighting and Signal System Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
30	586	Meter Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
31	587	Customer Installations Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
32	588	Miscellaneous Distribution Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
33	589	Rents	ALLDIST	100.0000%	100% Jurisdictional Items
34	590	Maintenance Supervision and Engineering	ALLDIST	100.0000%	100% Jurisdictional Items
35	591	Maintenance of Structures	ALLDIST	100.0000%	100% Jurisdictional Items
36	592	Maintenance of Station Equipment	ALLDIST	100.0000%	100% Jurisdictional Items
37	593	Maintenance of Overhead Lines (excl. 593.0009)	ALLDIST	100.0000%	100% Jurisdictional Items
38	594	Maintenance of Underground Lines	ALLDIST	100.0000%	100% Jurisdictional Items
39	595	Maintenance of Line Transformers	ALLDIST	100.0000%	100% Jurisdictional Items
40	596	Maintenance of Street Lighting and Signal Systems	ALLDIST	100.0000%	100% Jurisdictional Items
41	597	Maintenance of Meters	ALLDIST	100.0000%	100% Jurisdictional Items
42	598	Maintenance of Miscellaneous Distribution Plant	ALLDIST	100.0000%	100% Jurisdictional Items

[A] Based upon the relationship reflected in the Functional books and records for the twelve months ended December 31, 2019.

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Jurisdictional Allocation Factors**  
**Rate Base and Operating Income**  
**As of December 31, 2019**

Work Paper Reference No(s):

Schedule B-7  
Page 2 of 2

LINE NO	ACCOUNT NO	ACCOUNT TITLE	ALLOCATION CODE/ DESCRIPTION	JURSDICTIONAL ALLOCATION FACTOR	DESCRIPTION OF FACTORS AND / OR METHOD OF ALLOCATION
(A)	(B)	(C)	(D)	(E)	(F)
43	901	Supervision	ALLDIST	100.0000%	100% Jurisdictional Items
44	902	Meter Reading Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
45	903	Customer Records and Collection Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
46	904	Uncollectible Accounts	ALLDIST	100.0000%	100% Jurisdictional Items
47	905	Miscellaneous Customer Accounts Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
48	907	Customer Assistance Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
49	909	Informational and Instructional Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
50	910	Misc. Customer Service and Informational Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
51	911	Supervision	ALLDIST	100.0000%	100% Jurisdictional Items
52	912	Demonstrating and Selling Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
53	913	Advertising Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
54	916	Miscellaneous Sales Expenses	ALLDIST	100.0000%	100% Jurisdictional Items
55	920	920 Administrative and General Salaries	A&G1	83.2526%	[A]
56	921	921 Office Supplies and Expenses	A&G2	93.2887%	[A]
57	922	922 Administrative Expenses Transferred-Cr.	A&G3	99.4242%	[A]
58	923.00xx	923.00xx Outside Svcs	A&G4	98.6059%	[A]
59	923.0001	9230001 Outside Svcs Empl - Nonassoc	A&G5	81.9317%	[A]
60	923.0003	9230003 AEPSC Billed to Client Co	A&G6	69.1931%	[A]
61	924	924 Property Insurance	A&G7	74.3995%	[A]
62	925	925 Injuries and Damages	A&G8	96.1338%	[A]
63	926 all other	92600xx Other Employee Benefits excluding Pension & OPEB	A&G9	99.5244%	[A]
64	926.0036,43,51,52,55,58,62	9260036,43,51,52,55,58,62 Employee Benefits	A&G10	94.3823%	[A]
65	926.0003, 37	9260003 & 9260037 Pension Plan	A&G11	99.8699%	[A]
66	926.0050	9260050 Pension Plan Fringe Loading Offset	A&G12	99.7648%	[A]
67	926.0021, 57	9260021 & 9260057 OPEB	A&G13	99.8732%	[A]
68	926.0053	9260053 OPEB Fringe Loading Offset	A&G14	99.7906%	[A]
69	926.0060	9260060 Amort-Post Retirement Benefit	A&G15	86.8305%	[A]
70	928	928 Regulatory Commission Expenses	A&G16	95.5656%	[A]
71	930.1000	9301000 General Advertising Expenses	A&G17	99.9565%	[A]
72	930.2 all other	9302000 Miscellaneous General Expenses	A&G18	85.2696%	[A]
73	930.2007	9302007 Associated Business Development Expenses	A&G19	76.0345%	[A]
74	931	931 Rents	A&G20	91.7574%	[A]
75	935	935 Maintenance of General Plant	A&G21	91.6423%	[A]

[A] Based upon the relationship reflected in the Functional books and records for the twelve months ended December 31, 2019.

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Jurisdictional Allocation Statistics**  
**As of December 31, 2019**

Work Paper Reference No(s):  
WP B-7.1a - e, WP B-2.1b

Schedule B-7.1  
Page 1 of 1

LINE NO	ALLOCATION FACTOR & DESCRIPTION	STATISTIC TOTAL COMPANY	ADJUSTMENT TO TOTAL COMPANY STATISTIC	ADJUSTED STATISTIC FOR TOTAL COMPANY	STATISTIC FOR RATE AREA	ALLOCATION FACTOR
(A)	(B)	(C)	(D)	(E)=(C)+(D)	(F)	(G)=(F)/(E)
1	ALLDIST	100% Jurisdictional Items				100.0000%
2	NONDIST	Non-Jurisdictional Items				0.0000%
3	DIRECT	Based upon the relationship reflected in the Functional books and records				
4	DEPR1 Depreciation - Distribution Plant	\$ 162,144,990	\$ 0	\$ 162,144,990	\$ 162,144,990	100.0000%
5	DEPR2 Depreciation - General Plant	6,731,145	-	6,731,145	5,016,921	74.5330%
6	DEPRDIR Depreciation - gridSMART Over/Under	(5,615,504)	-	(5,615,504)	(5,615,504)	100.0000%
7	DEPRGSMT Depreciation - DIR	(18,669,867)	-	(18,669,867)	(18,669,867)	100.0000%
8	AMORT1 Amortization - General Plant	667,710	-	667,710	667,710	100.0000%
9	AMORT2 Amortization - Intangible Plant	25,413,520	-	25,413,520	22,569,610	88.8095%
10	OTHTAX1 Franchise Tax	3,030	-	3,030	3,030	100.0000%
11	OTHTAX2 Commercial Activity Taxes	6,965,721	-	6,965,721	6,959,475	99.9103%
12	OTHTAX3 Payroll Taxes	6,873,858	-	6,873,858	6,872,637	99.9822%
13	OTHTAX4 Property Taxes	269,485,031	-	269,485,031	188,754,122	70.0425%
14	OTHTAX5 Regulatory Fees	4,720,980	-	4,720,980	4,720,980	100.0000%
15	OTHTAX6 Miscellaneous Taxes	52	-	52	52	100.0000%
16	OTHTAX7 Revenue-kwhr Taxes	146,777,477	-	146,777,477	146,777,477	100.0000%
17	OTHREV1 Misc. Service Revenues	10,115,749	-	10,115,749	9,995,291	98.8092%
18	OTHREV2 Rent from Electric Property - Assoc.	18,729,725	-	18,729,725	12,142,059	64.8278%
19	OTHREV3 Rent from Electric Property - Non Assoc.	1,212,642	-	1,212,642	44,461	3.6665%
20	OTHREV4 Rent from Electric Property - ABD	1,075,212	-	1,075,212	274,573	25.5366%
21	OTHREV5 Rent from Electric Property - Pole Attach.	19,938,616	-	19,938,616	19,699,939	98.8029%
22	OTHREV6 4560001+4560012 Other Electric Rev - Distribution	958,707	-	958,707	958,707	100.0000%
23	OTHREV7 4560007 Other Electric Rev - DSM Program	104,213	-	104,213	104,213	100.0000%
24	OTHREV8 4560015 Other Electric Rev - ABD	3,964,185	-	3,964,185	3,309,429	83.4832%
25	OTHREV9 4560041 Misc Rev - NonAffiliated	102,011	-	102,011	850	0.8333%
26	OTHREV10 4561027 PJM Tranms Dist/Meter - NonAff	1,373,619	-	1,373,619	1,373,619	100.0000%
27	A&G1 920 Administrative and General Salaries	35,728,385	-	35,728,385	29,744,812	83.2526%
28	A&G2 921 Office Supplies and Expenses	4,648,874	-	4,648,874	4,336,873	93.2887%
29	A&G3 922 Administrative Expenses Transferred-Cr.	(9,280,100)	-	(9,280,100)	(9,226,661)	99.4242%
30	A&G4 923.00xx Outside Svcs	17,682	-	17,682	17,435	98.6059%
31	A&G5 9230001 Outside Svcs Empl - Nonassoc	7,989,192	-	7,989,192	6,545,683	81.9317%
32	A&G6 9230003 AEPSC Billed to Client Co	(3,455,634)	-	(3,455,634)	(2,391,061)	69.1931%
33	A&G7 924 Property Insurance	2,201,442	-	2,201,442	1,637,863	74.3995%
34	A&G8 925 Injuries and Damages	5,942,545	-	5,942,545	5,712,796	96.1338%
35	A&G9 92600xx Other Employee Benefits excluding Pension &	27,353,957	-	27,353,957	27,223,859	99.5244%
36	A&G10 9260036,43,51,52,55,58,62 Employee Benefits	(28,075,949)	-	(28,075,949)	(26,498,725)	94.3823%
37	A&G11 9260003 & 9260037 Pension Plan	7,915,803	-	7,915,803	7,905,503	99.8699%
38	A&G12 9260050 Pension Plan Fringe Loading Offset	(3,859,207)	-	(3,859,207)	(3,850,130)	99.7648%
39	A&G13 9260021 & 9260057 OPEB	788,641	-	788,641	787,641	99.8732%
40	A&G14 9260053 OPEB Fringe Loading Offset	(827,103)	-	(827,103)	(825,372)	99.7906%
41	A&G15 9260060 Amort-Post Retirement Benefit	1,032,204	-	1,032,204	896,267	86.8305%
42	A&G16 928 Regulatory Commission Expenses	1,992,399	-	1,992,399	1,904,048	95.5656%
43	A&G17 9301000 General Advertising Expenses	4,631,687	-	4,631,687	4,629,672	99.9565%
44	A&G18 9302000 Miscellaneous General Expenses	2,357,579	-	2,357,579	2,010,297	85.2696%
45	A&G19 9302007 Associated Business Development Expenses	1,938,344	-	1,938,344	1,473,810	76.0345%
46	A&G20 931 Rents	1,102,097	-	1,102,097	1,011,255	91.7574%
47	A&G21 935 Maintenance of General Plant	15,236,818	-	15,236,818	13,963,377	91.6423%



**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Explanation of Changes in Allocation Procedures**  
**As of December 31, 2019**

Work Paper Reference No(s):

Schedule B-7.2  
Page 1 of 1

LINE NO	ACCOUNT NO	DESCRIPTION	PROCEDURES APPROVED IN PRIOR CASE	RATIONALE FOR CHANGE
(A)	(B)	(C)	(D)	(E)

Refer to the direct testimony of T. A. Caudill for discussion of jurisdictional allocation factors.

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Jurisdictional Proforma Income Statement**  
**Test Year: Twelve Months Ended November 30, 2020**  
**(\$000)**

**Work Paper Reference No(s):**  
Schedule A-1, A-2, C-2, C-4

**Schedule C-1**  
**Page 1 of 1**

LINE NO	DESCRIPTION	ADJUSTED REVENUES & EXPENSES	PROPOSED INCREASES	PROFORMA REVENUE & EXPENSES
(A)	(B)	(C)	(D)	(E)
1	Operating Revenues	\$ 664,331	\$ 402,086	\$ 1,066,417
2				
3	Operating Expenses			
4	Operation & Maintenance	285,120	1,929	287,049
5	Depreciation and Amortization Expenses	176,155		176,155
6	Taxes - Other	200,970	1,671	202,641
7	Operating Expenses before Income Taxes	662,245	3,600	665,845
8				
9	NEOI before Income Taxes	2,087	398,486	400,573
10				
11	State Income taxes	(524)	3,450	2,926
12	Federal Income taxes	(20,489)	82,958	62,469
13	Total Income Taxes	(21,013)	86,407	65,394
14				
15	Total Operating Expenses	641,232	90,007	731,239
16				
17	Net Operating Income	\$ 23,100	\$ 312,079	\$ 335,179
18				
19	Rate Base	\$ 2,924,779		\$ 2,924,779
20				
21	Rate of Return	0.79%		11.46%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Jurisdictional Adjusted Test Year Net Electric Operating Income (NEOI)**  
**Test Year: Twelve Months Ended November 30, 2020**  
**(\$000)**

**Work Paper Reference No(s):**  
Schedule C-2.1, C-3, C-4

**Schedule C-2**  
**Page 1 of 2**

LINE NO	DESCRIPTION	UNADJUSTED REVENUES & EXPENSES	ADJUSTMENTS	ADJUSTED REVENUES & EXPENSES
(A)	(B)	(C)	(D)	(E)
1	<b>OPERATING REVENUES</b>			
2	Base Revenues	\$ 1,202,601	\$ (585,971)	\$ 616,630
3	Fuel Revenues	0	0	0
4	Other Operating Revenues	48,094	(393)	47,701
5	<b>Total Operating Revenues</b>	<u>1,250,695</u>	<u>(586,364)</u>	<u>664,331</u>
6				
7	<b>OPERATING EXPENSES</b>			
8	Operation and Maintenance Expenses			
9	Production Expenses			
10	Fuel and Purchased Power	0	0	0
11	Other	0		0
12	<b>Total Production Expenses</b>	<u>0</u>	<u>0</u>	<u>0</u>
13	Transmission Expense	0		0
14	Distribution Expense	183,110	(51,611)	131,499
15	Customer Accounts Expenses	178,753	(105,236)	73,517
16	Customer Service & Information Expense	105,086	(98,154)	6,932
17	Sales Expense	684	(180)	505
18	Administrative & General Expense	76,081	(3,415)	72,666
19	<b>Total Operating and Maintenance Expense</b>	<u>543,715</u>	<u>(258,595)</u>	<u>285,120</u>
20	Depreciation and Amortization Expenses			
21	Depreciation	185,553	(30,942)	154,611
22	Amort. & Depl. of Utility Plant	28,213	(6,670)	21,544
23	Amort. of Utility Plant Acq. Adj.	0	0	0
24	Net Amortization of Regulatory Credits/Debits	(113)	114	0
25	<b>Total Depreciation and Amtz. Expenses</b>	<u>213,653</u>	<u>(37,498)</u>	<u>176,155</u>
26	Taxes Other Than Income Taxes	370,166	(169,196)	200,970
27				
28	<b>TOTAL OPERATING EXPENSE BEFORE INCOME TAXES</b>	<u>1,127,534</u>	<u>(465,289)</u>	<u>662,245</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Adjusted Test Year Net Electric Operating Income (NEOI)  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):

Schedule C-2  
Page 2 of 2

LINE NO	DESCRIPTION	UNADJUSTED REVENUES & EXPENSES	ADJUSTMENTS	ADJUSTED REVENUES & EXPENSES
(A)	(B)	(C)	(D)	(E)
29	NEOI BEFORE INCOME TAXES	123,161	(121,074)	2,087
30				
31	Income Taxes-State and Local			
32	Current	(71)	(1,276)	(1,347)
33	Provision for Deferred Income Taxes	262	561	822
34	Total State & Local Income Taxes	191	(715)	(524)
35	Income Taxes-Federal			
36	Current	(2,293)	(40,028)	(42,321)
37	Provision for Deferred Income Taxes	25,394	(3,558)	21,835
38	Deferred Investment Tax Credit	(3)	0	(3)
39	Total Federal Income Taxes	23,098	(43,586)	(20,489)
40				
41	<b>Total Operating Expenses</b>	<b>1,150,822</b>	<b>(509,591)</b>	<b>641,232</b>
42				
43	<b>Net Electric Operating Income</b>	<b>\$ 99,873</b>	<b>\$ (76,773)</b>	<b>\$ 23,100</b>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Summary of Jurisdictional Adjustments to Operating Income  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s): See Below

Schedule C-3  
Page 1 of 4

LINE NO	ELEMENT OF OPERATING INCOME	TITLE OF ADJUSTMENT								
		TOTAL SCHEDULE	UNIVERSAL SERVICE FUND	kWh TAX	ENERGY EFFICIENCY PEAK DEMAND	ECONOMIC DEVELOPMENT COST RECOVERY	ENHANCED SERVICE RELIABILITY	DECREASE ICP TO A TARGET LEVEL OF 1.0	ANNUALIZE LABOR/PAYROLL EXPENSE	ADD ENERGY EFFIC. & PEAK DEMAND REDUCTION LABOR
	Schedule Reference	C-3	C-3.1	C-3.2	C-3.3	C-3.4	C-3.5	C-3.6	C-3.7	C-3.8
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1	<b>OPERATING REVENUES</b>									
2	Base Revenues	\$ (585,971)	\$ (82,497)	\$ (144,527)	\$ (98,140)	\$ 4,371	\$ (21,779)	\$ 0	\$ 0	\$ 0
3	Fuel Revenues	0.000								
4	Other Operating Revenues	(393)								
5	<b>Total Operating Revenues</b>	<u>(586,364)</u>	<u>(82,497)</u>	<u>(144,527)</u>	<u>(98,140)</u>	<u>4,371</u>	<u>(21,779)</u>	<u>0</u>	<u>0</u>	<u>0</u>
6	<b>OPERATING EXPENSES</b>									
7	Operation and Maintenance Expenses									
8	Production Expenses									
9	Fuel and Purchased Power	0.000								
10	Other	0.000								
11	<b>Total Production Expenses</b>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
12	Transmission Expense	0.000								
13	Distribution Expense	(51,611)					(6,562)	0	(17,516)	
14	Customer Accounts Expenses	(105,236)	(106,025)		0			0		
15	Customer Service & Information Expense	(98,154)			(97,458)			0		0
16	Sales Expense	(180)			(180)			0		0
17	Administrative & General Expense	(3,415)			(286)			0		
18	<b>Total Operating and Maintenance Expense</b>	<u>(258,595)</u>	<u>(106,025)</u>	<u>0</u>	<u>(97,924)</u>	<u>0</u>	<u>(6,562)</u>	<u>0</u>	<u>(17,516)</u>	<u>0</u>
19	Depreciation and Amortization Expenses									
20	Depreciation	(30,942)								
21	Amort. & Depl. of Utility Plant	(6,670)								
22	Amort. of Utility Plant Acq. Adj.	0								
23	Net Amortization of Regulatory Credits/Debits	114								
24	<b>Total Depreciation and Amtz. Expenses</b>	<u>(37,498)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
25	Taxes Other Than Income Taxes	(169,196)		(145,073)				0	(1,428)	
26	Income Taxes-State and Municipal									
27	Current	(1,276)								
28	Provision for Deferred Income Taxes	561								
29	Provision for Deferred Income Taxes-Credit									
30	<b>Total State &amp; Local Income Taxes</b>	<u>(715)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
31	Income Taxes-Federal									
32	Current	(40,028)								
33	Provision for Deferred Income Taxes	(3,558)								
34	Provision for Deferred Income Taxes-Credit	0								
35	<b>Total Federal Income Taxes</b>	<u>(43,586)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
36	<b>Total Operating Expenses</b>	<u>(509,591)</u>	<u>(106,025)</u>	<u>(145,073)</u>	<u>(97,924)</u>	<u>0</u>	<u>(6,562)</u>	<u>0</u>	<u>(18,945)</u>	<u>0</u>
37	<b>Net Electric Operating Income</b>	<u>\$ (76,773)</u>	<u>\$ 23,528</u>	<u>\$ 546</u>	<u>\$ (216)</u>	<u>\$ 4,371</u>	<u>\$ (15,217)</u>	<u>\$ 0</u>	<u>\$ 18,945</u>	<u>\$ 0</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Summary of Jurisdictional Adjustments to Operating Income  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):

Schedule C-3  
Page 2 of 4

LINE NO	ELEMENT OF OPERATING INCOME	TITLE OF ADJUSTMENT								
		ANNUALIZE PENSION EXPENSE	ANNUALIZE OPEB EXPENSE	AMORTIZE RATE CASE EXPENSE	ANNUALIZE DEPRECIATION EXPENSE	DEPRECIATION RATE	INCOME TAXES	SMARTGRID RIDER	DISTRIBUTION INVESTMENT RIDER	PTBAR RIDER
	Schedule Reference	C-3.9	C-3.10	C-3.11	C-3.12	C-3.13	C-3.14	C-3.15	C-3.16	C-3.17
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1	<b>OPERATING REVENUES</b>									
2	Base Revenues	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ (35,239)	\$ (244,573)	\$ (13,664)
3	Fuel Revenues									
4	Other Operating Revenues									
5	Total Operating Revenues	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(35,239)</u>	<u>(244,573)</u>	<u>(13,664)</u>
6	<b>OPERATING EXPENSES</b>									
7	Operation and Maintenance Expenses									
8	Production Expenses									
9	Fuel and Purchased Power									
10	Other									
11	Total Production Expenses	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
12	Transmission Expense									
13	Distribution Expense							(11,656)		
14	Customer Accounts Expenses									
15	Customer Service & Information Expense									
16	Sales Expense									
17	Administrative & General Expense	(135)	(2,927)	65						
18	Total Operating and Maintenance Expense	<u>(135)</u>	<u>(2,927)</u>	<u>65</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(11,656)</u>	<u>0</u>	<u>0</u>
19	Depreciation and Amortization Expenses									
20	Depreciation				(10,946)	(4,946)		(12,820)	(2,231)	
21	Amort. & Depl. of Utility Plant				(6,670)					
22	Amort. of Utility Plant Acq. Adj.									
23	Net Amortization of Regulatory Credits/Debits									(25)
24	Total Depreciation and Amtz. Expenses	<u>0</u>	<u>0</u>	<u>0</u>	<u>(17,615)</u>	<u>(4,946)</u>	<u>0</u>	<u>(12,820)</u>	<u>(2,231)</u>	<u>(25)</u>
25	Taxes Other Than Income Taxes							(5,963)		
26	Income Taxes-State and Municipal									
27	Current						(1,276)			
28	Provision for Deferred Income Taxes						561			
29	Provision for Deferred Income Taxes-Credit									
30	Total State & Local Income Taxes	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(715)</u>	<u>0</u>	<u>0</u>	<u>0</u>
31	Income Taxes-Federal									
32	Current						(40,028)			
33	Provision for Deferred Income Taxes						(24,471)			
34	Provision for Deferred Income Taxes-Credit						0			
35	Total Federal Income Taxes	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(64,499)</u>	<u>0</u>	<u>0</u>	<u>0</u>
36	Total Operating Expenses	<u>(135)</u>	<u>(2,927)</u>	<u>65</u>	<u>(17,615)</u>	<u>(4,946)</u>	<u>(65,214)</u>	<u>(30,439)</u>	<u>(2,231)</u>	<u>(25)</u>
37	Net Electric Operating Income	<u>\$ 135</u>	<u>\$ 2,927</u>	<u>\$ (65)</u>	<u>\$ 17,615</u>	<u>\$ 4,946</u>	<u>\$ 65,214</u>	<u>\$ (4,800)</u>	<u>\$ (242,341)</u>	<u>\$ (13,639)</u>

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Summary of Jurisdictional Adjustments to Operating Income**  
**Test Year: Twelve Months Ended November 30, 2020**  
**(\$000)**

Work Paper Reference No(s):

Schedule C-3  
Page 3 of 4

LINE NO	ELEMENT OF OPERATING INCOME	TITLE OF ADJUSTMENT							
		STORM EXPENSE	TAX SAVINGS CREDIT RIDER	SMART CITY RIDER	CREDIT CARD PROCESSING FEES	DSM PROGRAM COSTS	COMMUNICATION PLAN EXPENSE	ADJUST BAD DEBT EXPENSE	PROPERTY TAX
	Schedule Reference	C-3.18	C-3.19	C-3.20	C-3.21	C-3.22	C-3.23	C-3.24	C-3.25
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
1	<b>OPERATING REVENUES</b>								
2	Base Revenues	\$ 0	\$ 54,997	\$ (5,844)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
3	Fuel Revenues								
4	Other Operating Revenues			(\$11)					
5	Total Operating Revenues	0	54,997	(5,854)	0	0	0	0	0
6	<b>OPERATING EXPENSES</b>								
7	Operation and Maintenance Expenses								
8	Production Expenses								
9	Fuel and Purchased Power								
10	Other								
11	Total Production Expenses	0	0	0	0	0	0	0	0
12	Transmission Expense								
13	Distribution Expense	(1,779)							
14	Customer Accounts Expenses				0			789	0
15	Customer Service & Information Expense			(696)		0			
16	Sales Expense					0			
17	Administrative & General Expense						0		
18	Total Operating and Maintenance Expense	(1,779)	0	(696)	0	0	0	789	0
19	Depreciation and Amortization Expenses								
20	Depreciation								
21	Amort. & Depl. of Utility Plant								
22	Amort. of Utility Plant Acq. Adj.								
23	Net Amortization of Regulatory Credits/Debits		138						
24	Total Depreciation and Amtz. Expenses	0	138	0	0	0	0	0	0
25	Taxes Other Than Income Taxes								(16,732)
26	Income Taxes-State and Municipal								
27	Current								
28	Provision for Deferred Income Taxes								
29	Provision for Deferred Income Taxes-Credit								
30	Total State & Local Income Taxes	0	0	0	0	0	0	0	0
31	Income Taxes-Federal								
32	Current								
33	Provision for Deferred Income Taxes		20,912						
34	Provision for Deferred Income Taxes-Credit								
35	Total Federal Income Taxes	0	20,912	0	0	0	0	0	0
36	Total Operating Expenses	(1,779)	21,051	(696)	0	0	0	789	(16,732)
37	Net Electric Operating Income	\$ 1,779	\$ 33,946	\$ (5,159)	\$ 0	\$ 0	\$ 0	\$ (789)	\$ 16,732

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Summary of Jurisdictional Adjustments to Operating Income  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):

Schedule C-3  
Page 4 of 4

LINE NO	ELEMENT OF OPERATING INCOME	TITLE OF ADJUSTMENT							
		REVENUE ADJUSTMENT	MISCELLANEOUS REVENUES	RESIDENTIAL LATE FEES	OUT OF PERIOD EXPENSES	PROMTIONAL ADVERTISING	MISCELLANEOUS EXPENSES	POLE ATTACHMENTS	ESRR & DANGER TREE BASELINE
	Schedule Reference	C-3.26	C-3.27	C-3.28	C-3.29	C-3.30	C-3.31	C-3.32	C-3.33
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
1	<b>OPERATING REVENUES</b>								
2	Base Revenues	\$ 924	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0		\$ 0
3	Fuel Revenues								
4	Other Operating Revenues		(3,400)	3,160				\$ (143)	
5	Total Operating Revenues	924	(3,400)	3,160	0	0	0	(143)	0
6	<b>OPERATING EXPENSES</b>								
7	Operation and Maintenance Expenses								
8	Production Expenses								
9	Fuel and Purchased Power								
10	Other								
11	Total Production Expenses	0	0	0	0	0	0	0	0
12	Transmission Expense								
13	Distribution Expense				(4,083)		(14)		(10,000)
14	Customer Accounts Expenses								
15	Customer Service & Information Expense								
16	Sales Expense								
17	Administrative & General Expense					(132)			
18	Total Operating and Maintenance Expense	0	0	0	(4,083)	(132)	(14)	0	(10,000)
19	Depreciation and Amortization Expenses								
20	Depreciation								
21	Amort. & Depl. of Utility Plant								
22	Amort. of Utility Plant Acq. Adj.								
23	Net Amortization of Regulatory Credits/Debits								
24	Total Depreciation and Amtz. Expenses	0	0	0	0	0	0	0	0
25	Taxes Other Than Income Taxes								0
26	Income Taxes-State and Municipal								
27	Current								
28	Provision for Deferred Income Taxes								
29	Provision for Deferred Income Taxes-Credit								
30	Total State & Local Income Taxes	0	0	0	0	0	0	0	0
31	Income Taxes-Federal								
32	Current								
33	Provision for Deferred Income Taxes								
34	Provision for Deferred Income Taxes-Credit								
35	Total Federal Income Taxes	0	0	0	0	0	0	0	0
36	Total Operating Expenses	0	0	0	(4,083)	(132)	(14)	0	(10,000)
37	Net Electric Operating Income	\$ 924	\$ (3,400)	\$ 3,160	\$ 4,083	\$ 132	\$ 14	\$ (143)	\$ 10,000



OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Universal Service Fund Rider  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule E-4, Schedule B-7

Schedule C-3.1  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To remove the effects of Universal Service Fund (USF) from the distribution test year				
3						
4	440 - 445	Sales of electricity (billings to customers)	\$ (81,122)	ALLDIST	100.00%	\$ (81,122)
5						
6	440 - 445	Sales of electricity (Public Funds Amortization)	(1,375)	ALLDIST	100.00%	(1,375)
7						
8	9040000	Uncoll Accts - Pct Income Plan (9040002)	(106,025)	ALLDIST	100.00%	(106,025)
9						
10		Total Adjustment to Flow through to the Schedule C-3				<u>\$ 23,528</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
kWh Tax Rider  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule E-4, Schedule B-7

Schedule C-3.2  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To remove the effects of the kWh Tax Rider from the distribution test year				
3						
4	440 - 445	Sales of electricity (billings to customers)	\$ (144,527)	ALLDIST	100.00%	\$ (144,527)
5						
6	4081010	Revenue-kWH Taxes	(145,073)	ALLDIST	100.00%	(145,073)
7						
8		Total Adjustment to Flow through to the Schedule C-3				<u>\$ 546</u>

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Energy Efficiency & Peak Demand Reduction Rider**  
**Test Year: Twelve Months Ended November 30, 2020**  
**(\$000)**

**Work Paper Reference No(s):**  
Schedule E-4, Schedule B-7, WP C-3.3a

**Schedule C-3.3**  
**Page 1 of 1**

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To remove the effect of the Energy Efficiency and Peak Demand Reduction (EE/EDR) rider from the distribution test year				
3						
4	440-445	Sales of electricity (billings to customers)	\$ (111,856)	ALLDIST	100.00%	\$ (111,856)
5						
6	440-445	Sales of Electricity 50% IRP to customers	13,716	ALLDIST	100.00%	13,716
7						
8	9030001	Customer Orders & Inquiries	-	ALLDIST	100.00%	-
9	9070000	Supervision - Customer Service	(0)	ALLDIST	100.00%	(0)
10	9070001	Supervision - DSM	(243)	ALLDIST	100.00%	(243)
11	9080000	Customer Assistance Expenses	(0)	ALLDIST	100.00%	(0)
12	9080009	Cust Assistance Expense - DSM	(82,116)	ALLDIST	100.00%	(82,116)
13	9080014	DSM Costs Deferred	(15,099)	ALLDIST	100.00%	(15,099)
14	9110001	Supervision - Residential	(36)	ALLDIST	100.00%	(36)
15	9110002	Supervision - Comm & Ind	(144)	ALLDIST	100.00%	(144)
16	9200000	Administrative & Gen Salaries	-	ALLDIST	100.00%	-
17	9210001	Off Supl & Exp - Nonassociated	(1)	ALLDIST	100.00%	(1)
18	9230001	Outside Svcs Empl - Nonassoc	-	ALLDIST	100.00%	-
19	9301002	Radio Station Advertising Time	-	ALLDIST	100.00%	-
20	9301015	Special Adv Space & Prod Exp	(261)	ALLDIST	100.00%	(261)
21	9302000	Misc General Expenses	(24)	ALLDIST	100.00%	(24)
22		Total O&M	<u>(97,924)</u>			<u>(97,924)</u>
23						
24		Total Adjustment to Flow through to the Schedule C-3				<u><u>\$ (216)</u></u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Economic Development Recovery Rider  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule E-4, Schedule B-7

Schedule C-3.4  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION		TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE			CODE	%	
(A)	(B)	(C)		(D)	(E)	(F)	(G)
1		Purpose and Description:					
2		To remove the effects of the Economic Development Recovery Rider (EDR) from the distribution test year					
3							
4	440 - 445	Sales of electricity (billings to customers)		\$ (8,465)	ALLDIST	100.00%	\$ (8,465)
5							
5	440 - 445	Sales of electricity (IRP credit) - Company Billing System 50% through EDR and other credits		13,778	ALLDIST	100.00%	13,778
6							
7							
8	440 - 445	Sales of Electricity Over/under		(941)	ALLDIST	100.00%	(941)
9							
10		Total Revenues		\$ 4,371			\$ 4,371

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Enhanced Service Reliability Rider  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule E-4, Schedule B-7

Schedule C-3.5  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION		TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE			CODE	%	
(A)	(B)	(C)		(D)	(E)	(F)	(G)
1		Purpose and Description:					
2		To remove the effect of the Enhanced Service Reliability Rider (ESRR) from the distribution test year					
3							
4	440-445	Sales of Electricity		\$ (21,779)			
5			Total Revenue	(21,779)	ALLDIST	100.00%	\$ (21,779)
6							
7							
8	5930009	ESRR-OvUnd Maint OvH Lines		(6,562)	ALLDIST	100.00%	(6,562)
9			Total O&M	\$ (6,562)			\$ (6,562)

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Adjust Incentive Compensation  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
WP C-3.6, Schedule B-7

Schedule C-3.6  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To decrease ICP in the test year to a target level				
3						
4						
5	5800	Supervision & Engineering	\$ 0	ALLDIST	100.00000%	\$ 0
6	5820	Station Equipment	-	ALLDIST	100.00000%	-
7	5830	Overhead Lines	-	ALLDIST	100.00000%	-
8	5840	Underground Lines	-	ALLDIST	100.00000%	-
9	5850	Street & Area Lighting	-	ALLDIST	100.00000%	-
10	5860	Meters	-	ALLDIST	100.00000%	-
11	5870	Customer Installations	-	ALLDIST	100.00000%	-
12	5880	Miscellaneous Distribution Exp	-	ALLDIST	100.00000%	-
13	5890	Rents - Nonassociated	-	ALLDIST	100.00000%	-
14	5900	Supervision & Engineering	-	ALLDIST	100.00000%	-
15	5920	Station Equipment	-	ALLDIST	100.00000%	-
16	5930	Maintenance of Overhead Lines	-	ALLDIST	100.00000%	-
17	5940	Underground Lines	-	ALLDIST	100.00000%	-
18	5950	Line Transformers	-	ALLDIST	100.00000%	-
19	5960	Street & Area Lighting	-	ALLDIST	100.00000%	-
20	5970	Meters	-	ALLDIST	100.00000%	-
21	5980	Misc Distribution Plant	-	ALLDIST	100.00000%	-
22	9010	Supervision & Engineering	-	ALLDIST	100.00000%	-
23	9020	Meter Reading	-	ALLDIST	100.00000%	-
24	9030	Customer Records & Collection Expense	-	ALLDIST	100.00000%	-
25	9070	Supervision	-	ALLDIST	100.00000%	-
26	9080	Customer Assistance Expenses	-	ALLDIST	100.00000%	-
27	9100	Misc Customer Service	-	ALLDIST	100.00000%	-
28	9110	Supervision	-	ALLDIST	100.00000%	-
29	9200	Salaries	-	A&G1	0.832526	-
30	9250	Injuries & Damages	-	A&G8	0.9613383	-
31	9280	Employee Benefits	-	A&G16	0.9556561	-
32	9301	General Advertising Expense	-	-	-	-
33	9302	Assoc Business Development Exp	-	A&G18	0.8526956	-
34	9350	Admin & General Maintenance	-	A&G21	0.9164234	-
35		Total Adjustment to Flow through to the Schedule C-3	<u>\$ 0</u>			<u>\$ 0</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Annualize Labor & Payroll Expenses  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Staff WPC-3.7a and WPC-3.7b

Schedule C-3.7  
Page 1 of 2

LINE NO	DESCRIPTION	REFERENCE	JURISDICTIONAL AMOUNT
(A)	(B)		(C)
1	<b>Purpose and Description:</b>		
2	To adjust Payroll Expenses, AEP Service Company, and Payroll Taxes to reflect Staff adjustments		
3			
4	<u>Ohio Power Company</u>		
5	Payroll	Staff WPC-3.7	\$ 64,941
6			
7	As Filed Ohio Power Company Labor	Schedule C-9	<u>72,128</u>
8			
9	<b>Total Adjustment</b>		(7,186)
10			
11	<u>AEP Service Company (AEPSC)</u>		
12	AEPSC Base Pay		
13		Staff WPC-3.7	82,918
14	As Filed AEPSC Labor		
15		DR 16-37 Att. 1	<u>93,308</u>
16	<b>Total Adjustment</b>		(10,390)
17			
18			
19	<b>Total Labor and Payroll Expense Adjustment</b>		<u><u>\$ (17,576)</u></u>
20			

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
PAYROLL TAX CALCULATION  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):

Schedule C-3.7  
Page 2 of 2

LINE NO	DESCRIPTION	REFERENCE	JURISDICTIONAL AMOUNT
(A)	(B)		(C)
1	<b>Purpose and Description:</b>		
2	To adjust payroll tax expense & account for employee savings plan contribution		
3			
4	Employee Benefits - Savings Plan Contribution		<u>\$ 60</u>
5			
6	Staff's annualized payroll tax for the test year	Staff WPC-3.7b	5,193
7			
8	Payroll tax included in the test year	Applicant Schedule C-2.1	<u>6,621</u>
9			
10	Adjustment to normalize payroll tax expense (Line 6 - Line 8)		<u>\$ (1,428)</u>



OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Energy Efficiency & Peak Demand Reduction Labor  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s): WP C-3.8a  
Schedule B-7

Schedule C-3.8  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To remove Energy Efficiency & Peak Demand Reduction (EEPDR)				
3		labor and fringes in the distribution test year				
4						
5	9070001	Supervision - DSM	\$ 177	ALLDIST	100.00%	\$ 177
6	9080009	Cust Assistance Expense - DSM	4,790	ALLDIST	100.00%	4,790
7	9110001	Supervision - Residential	35	ALLDIST	100.00%	35
8	9110002	Supervision - Comm & Ind	139	ALLDIST	100.00%	139
9		Total	5,142			5,142
10						
11		<b>Staff's Adjusted Energy Efficiency &amp; Peak Demand Reduction Labor:</b>				
12	9070001	Staff's Adjusted Supervision - DSM	(177)	ALLDIST	100.00%	(177)
13	9080009	Staff's Adjusted Cust Assistance Expense - DSM	(4,790)	ALLDIST	100.00%	(4,790)
14	9110001	Staff's Adjusted Supervision - Residential	(35)	ALLDIST	100.00%	(35)
15	9110002	Staff's Adjusted Supervision - Comm & Ind	(139)	ALLDIST	100.00%	(139)
16						
17		Staff's Adjustment to Exclude EE & Peak Demand Reduction Labor and Fringes from the Distribution Test Yea	(5,142)			(5,142)
18						
19		Total Adjustment to Flow through to the Schedule C-3	\$ 0			\$ 0

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Annualize Pension Expense  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
WP C-3.9

Schedule C-3.9  
Page 1 of 1

LINE NO	ACCT NO	DESCRIPTION	REFERENCE	JURISDICTIONAL AMOUNT
(A)	(B)	(C)	(D)	(E)
1		<b>Purpose and Description:</b>		
2		To adjust pension expense.		
3				
4	9260003	Pension Plan		\$ 9,614
5	9260037	Supplemental Pension		28
6	9260062	Pension Plan - Non-Service		(2,371)
7	9260042	SERP Pension - Non-Service		28
8	9260050	Frg Ben Loading - Pension		(4,792)
9				
10		Staff's annualized pension expense for the test year		2,508
11				
12		Pension expense included in the test year	Applicant Schedule C-3.9	2,642
13		Adjustment to normalize pension expense (Line 10 - Line 12)		\$ (135)

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Annualize OPEB Expense  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
WP C-3.10

Schedule C-3.10  
Page 1 of 1

LINE NO	ACCT NO	DESCRIPTION	REFERENCE	JURISDICTIONAL AMOUNT
(A)	(B)	(C)	(D)	(E)
1		<b>Purpose and Description:</b>		
2		To adjust OPEB expense.		
3				
4	9260021	Postretirement Benefits - OPEB		\$ 864
5	9260043	OPEB - Non-Service		(12,687)
6	9260053	Frg Ben Loading - OPEB		(867)
7				
8		Staff's annualized OPEB expense for the test year		(12,691)
9				
10		OPEB expense included in the test year	Applicant Schedule C-3.10	(9,763)
11		Adjustment to normalize pension expense (Line 8 - Line 10)		<u>\$ (2,927)</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Amortize Rate Case Expense  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule C-8, Schedule B-7

Schedule C-3.11  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To include in the test year - amortization of the estimated rate case expense over three years				
3						
4	9280003	Rate Case Amortization	\$ 65	ALLDIST	100.00%	\$ 65

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Annualize Depreciation Expense**  
**Test Year: Twelve Months Ended November 30, 2020**

Work Paper Reference No(s): WP C-3.12a & C-3.13a, WP C-3.12b  
WP B-3.2a, Schedule B-7

Schedule C-3.12  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION		TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE			CODE	%	
(A)	(B)	(C)		(D)	(E)	(F)	(G)
1							
2		<b>Purpose and Description:</b>					
3		To compare the depreciation expense in the test year to the annualized depreciation expense recorded based					
4		on the date certain plant balances as of December 31, 2019					
5							
6	403	Depreciation Expense					
7		<b>Distribution</b>					
8		Depreciation Expense Annualized as of					
9		December 31, 2019 Plant Balances	\$	175,507			
10		Depreciation Expense for Test Year		<u>183,678</u>			
11		Adjustment to Depreciation Expense on Annualized basis to Test Year	\$	(8,171)	ALLDIST	100.00%	\$ (8,171)
12		.					
13							
14		<b>General</b>					
15		Depreciation Expense Annualized as of					
16		December 31, 2019 Plant Balances		10,434			
17		Depreciation Expense for Test Year		<u>14,157</u>			
18		Adjustment to Depreciation Expense on Annualized basis to Test Year		(3,723)	DEPR2	74.53%	(2,775)
19							
20							
21	404	<b>Intangible</b>					
22		Amortization Expense Annualized as of					
23		November 30, 2020 Plant Balances		23,654			
24		Amortization Expense for Test Year		<u>31,164</u>			
25		Adjustment to Amortization Expense on Annualized basis to Test Year		(7,510)	AMORT2	88.81%	(6,670)
26							
27							
28		Total Adjustment to Flow through to the Schedule C-3	\$	<u>(19,404)</u>			<u>\$ (17,615)</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Depreciation Rate Adjustment  
Test Year: Twelve Months Ended November 30, 2020

Work Paper Reference No(s): WP C-3.12a & C-3.13a  
Schedule C-3.12, Schedule B-7

Schedule C-3.13  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1						
2		<b>Purpose and Description:</b>				
3		Adjust depreciation expense at current approved rates to proposed Depreciation Study rates				
4		based on date certain plant balances as of December 31, 2019				
5						
6	403	Depreciation Expense				
7		<b>Depreciation Rate Adjustment</b>				
8		Depreciation - Distribution Plant - Current Rates	\$ 175,507			
9		Depreciation - Distribution Plant - Study Rates	<u>170,567</u>			
10			\$ (4,940)	ALLDIST	100.00%	\$ (4,940)
11		Deprec - General Plant (Dist Co) - Current Rates	10,434			
12		Deprec - General Plant (Dist Co) - Study Rates	<u>10,426</u>			
13			(7)	DEPR2	74.53%	(5)
14						
15		Adjustment for Depreciation on Current and Study Rates	<u>\$ (4,947)</u>			<u>\$ (4,946)</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Federal & State Income Taxes  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule C-3.19, C-4

Schedule C-3.14  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To Adjust State, Local and Federal Income Tax Expense for impacts				
3		related to Going-Level Adjustments				
4						
5						
6	409.1	Current State & Local Income Tax Expense	\$ (1,276)	DIRECT	100%	\$ (1,276)
7						
8	410.1 & 411.1	Deferred State & Local Income Tax Expense	561	DIRECT	100%	561
9						
10						
11						
12						
13	409.1	Current Federal Income Tax Expense	(40,028)	DIRECT	100%	(40,028)
14						
15	410.1	Deferred Federal Income Tax Expense	(3,558)	DIRECT	100%	(3,558)
16						
17	410.1 & 411.1	Provision for Deferred Income Taxes	(20,912)	DIRECT	100%	(20,912)
18						
19	411.4 & 411.5	Deferred Investment Tax Credit Expense	-	DIRECT	100%	-

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Smart Grid Rider  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule E-4, Schedule B-7

Schedule C-3.15  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1	<b>Purpose and Description:</b>					
2	To remove the effect of the Smart Grid Rider from the test period					
3						
4	440 - 445	Sales of electricity (billings to customers)	\$ (35,239)	ALLDIST	100.00%	\$ (35,239)
5						
6	4030001	Depreciation	(12,829)	ALLDIST	100.00%	(12,829)
7	4030011	Depr. Over/Under	10	ALLDIST	100.00%	10
8	408XXXX	Property Taxes	(5,963)	ALLDIST	100.00%	(5,963)
9	5860000	Meter Expenses (Severance)	(72)	ALLDIST	100.00%	(72)
10	5880000	Misc. Distribution Expense	(11,585)	ALLDIST	100.00%	(11,585)
11		Total Expense	<u>\$ (30,439)</u>			<u>\$ (30,439)</u>



OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Distribution Investment Rider  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule E-4, Schedule B-7

Schedule C-3.16  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To remove the effects of Distribution Investment Rider from the distribution test year				
3						
4	440 - 445	Sales of electricity (billings to customers)	\$ (244,573)	ALLDIST	100.00%	\$ (244,573)
5						
6	4030015	DIR Over/Under Depreciation Expense	(2,231)	ALLDIST	100.00%	(2,231)
7						
8						<u>\$ (242,341)</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Remove effect of Pilot Throughput Balancing Adjustment Rider  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule B-7, Schedule E-4

Schedule C-3.17  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1						
2		<b>Purpose and Description:</b>				
3		To remove the effect of the PTBAR amortization and deferral from the distribution test year				
4						
5	440-445	Revenues - PTBAR Collections	\$ (9,474)	ALLDIST	100.00%	\$ (9,474)
6	440-445	Revenues - Deferral of 2019 PTBAR	(5,059)	ALLDIST	100.00%	(5,059)
7	440-445	Revenues - Amortization of PTBAR Deferral	869	ALLDIST	100.00%	869
8		Total Revenues	(13,664)			(13,664)
9						
10						
11	4073000	Regulatory Debits - Amortization of PTBAR CC	<u>\$ (25)</u>	ALLDIST	100.00%	<u>\$ (25)</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Storm Expense Adjustment  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule B-7

Schedule C-3.18  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		Purpose and Description:				
2		Adjust O&M Storm Expense to 5 year average				
3						
4	5930000	Storm Expense in Rates Year ending 11/30/2020	\$ 5,120	ALLDIST	100.00%	\$ 5,120
5						
6		5 year Average Storm Expense	3,341	ALLDIST	100.00%	3,341
7						
8		Increase/(Decrease) to Account 593	\$ (1,779)	ALLDIST	100.00%	\$ (1,779)
9		Maintenance of Overhead Lines				

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Remove Effects of the Tax Savings Credit Rider**  
**Test Year: Twelve Months Ended November 30, 2020**  
**(\$000)**

**Work Paper Reference No(s):** WP C-3.19a, WP C-3.19b  
WP C-2.1a thru g, Schedule E-4, Schedule B-7

**Schedule C-3.19**  
**Page 1 of 1**

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION		TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE			CODE	%	
(A)	(B)	(C)		(D)	(E)	(F)	(G)
1		Purpose and Description:					
2		To remove the effects of the Tax Savings Credit Rider from the Distribution Test year					
3							
4	440-445	Remove Test Year Tax Credits from Revenues		\$ 56,482	ALLDIST	100.00%	\$ 56,482
5							
6	440-445	Remove Tax Provision Amortization		(1,485)	ALLDIST	100.00%	(1,485)
7							
8	4074000	Remove Regulatory Credits Over/Under Tax Savings Credit Rider		138	ALLDIST	100.00%	138
9							
10	411.1	Deferred Federal Income Tax					
11		Remove Excess ADIT amortization from Test Year Distribution		20,912	ALLDIST	100.00%	20,912
12		Remove Excess ADIT amortization from Test Year Non Jurisdictional Transmission		7,325	NONDIST	0.00%	-
13		Total 411.1		\$ 28,237			\$ 20,912

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Smart City Rider  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule E-4, Schedule B-7

Schedule C-3.20  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To remove the effects of the Smart City rider from the distribution test year				
3						
4	440 - 445	Sales of electricity (billings to customers)	\$ (5,844)	ALLDIST	100.00%	\$ (5,844)
5						
6	4560007	Other Electric Revenues - DSM Program	(11)	ALLDIST	100.00%	(11)
7						
8	9080009	Customer Assistance Expense - DSM	(696)	ALLDIST	100.00%	(696)

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
To Include Credit Card Processing Fees in the Test Year  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
WP C-3.21, Schedule B-7

Schedule C-3.21  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To Reject Company's Proposal to Include Credit Card Processing Fees in Test Year				
3						
4	9030000	Customer Records & Collection Expense	\$ 0	ALLDIST	100.00%	\$ 0

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Demand Side Management Program  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule B-7

Schedule C-3.22  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To remove costs of the demand side management program in test year				
3						
4	9070001	Supervision - DSM	\$ 2,144	ALLDIST	100.00%	\$ 2,144
5	9080009	Customer Assistance Expense - DSM	38,102	ALLDIST	100.00%	38,102
6	9110001	Supervision - Residential	3	ALLDIST	100.00%	3
7	9110002	Supervision- Comm & Ind	12	ALLDIST	100.00%	12
8						
9		Total	40,261			40,261
10						
11		<b>Staff's Adjusted Demand Side Management Program:</b>				
12	9070001	Staff's Adjusted Supervision - DSM	(2,144)	ALLDIST	100.00%	(2,144)
13	9080009	Staff's Adjusted Customer Assistance Expense - DSM	(38,102)	ALLDIST	100.00%	(38,102)
14	9110001	Staff's Adjusted Supervision - Residential	(3)	ALLDIST	100.00%	(3)
15	9110002	Staff's Adjusted Supervision- Comm & Ind	(12)	ALLDIST	100.00%	(12)
16						
17		Staff's Adjustment to Remove the Demand Side Management (DSM) Prog	(40,261)			(40,261)
18						
19		Total Adjustment to Flow through to the Schedule C-3	\$ -			\$ -

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Communication Plan Expense  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule B-7

Schedule C-3.23  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To Reject the Company's Proposal to Include Communication Plan expense in the distribution test year				
3						
4	9301000	General Advertising	\$ 0	ALLDIST	100.00%	\$ 0



OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Adjust Miscellaneous Bad Debt Expense  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule B-7

Schedule C-3.24  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To adjust bad debt expense based on 12 month rolling average write-offs				
3						
4	9040007	Per books bad debt expense for Test Year	\$ (682)	ALLDIST	100.00%	\$ (682)
5						
6	9040007	Going level based on 12 month rolling average write-offs	107	ALLDIST	100.00%	107
7		Increase/(Decrease)	<u>\$ 789</u>			<u>\$ 789</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Property Tax Calculation  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule

Schedule C-3.25  
Page 1 of 1

LINE NO	ACCT NO	DESCRIPTION	REFERENCE	JURISDICTIONAL AMOUNT
(A)	(B)	(C)		(G)
1		<b>Purpose and Description:</b>		
2		To adjust property tax expense.		
3				
4	408.1x	Property tax included in the test year	Applicant Schedule C-2.1	\$ 207,929
5				
6	408.1x	Staff's annualized property tax for the test year		191,197
7		Adjustment to normalize property tax expense (Line 6 - Line 4)		<u>\$ (16,732)</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Revenue Adjustment  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule E-4 & WP C-3.26

Schedule C-3.26  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To adjust revenues based on actual customer bills				
3						
4	440-445	Staff Adjusted Distribution Retail Revenue	\$ 630,301	ALLDIST	100.00%	\$ 630,301
5	440-445	Test Year Distribution Retail Revenue	629,377	ALLDIST	100.00%	629,377
6		Total Adjustment	<u>\$ 924</u>	ALLDIST	100.00%	<u>\$ 924</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Distribution Misc. Revenue Adjustment  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Staff WP C-3.27

Schedule C-3.27  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To adjust revenues to account for misc revenue accounts				
3						
4	450-456	Staff Adjusted Distribution Misc Revenue	\$ 6,707			
5	450-456	Test Year Distribution Misc Revenue	10,107			
6						
7		Total Adjustment	<u>\$ (3,400)</u>	ALLDIST	100.00%	<u>\$ (3,400)</u>
8						
9						

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Late Fee Revenue Adjustment  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Schedule E-4 & WP C-3.28

Schedule C-3.28  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To adjust revenues based on the addition of residential late fees				
3						
4	450-456	Staff Adjusted Distribution Misc Revenue - Residential Late Fees	\$ 3,160	ALLDIST	100.00%	\$ 3,160
5	450-456	Test Year Distribution Misc Revenue - Residential Late Fees	0	ALLDIST	100.00%	0
6		Total Adjustment	<u>\$ 3,160</u>	ALLDIST	100.00%	<u>\$ 3,160</u>

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Out of Period Expenses**  
**Test Year: Twelve Months Ended November 30, 2020**  
**(\$000)**

Work Paper Reference No(s):  
Staff WPC-3.29

Schedule C-3.29  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		Purpose and Description:				
2		To remove expenses that occurred outside of the test year period				
3						
4						
5	5800000	Supervision & Engineering	\$ (7)	ALLDIST	100%	\$ (7)
6	5830000	Overhead Lines	(7)	ALLDIST	100%	(7)
7	5880000	Miscellaneous Distribution Exp	(1)	ALLDIST	100%	(1)
8	5920000	Station Equipment	(60)	ALLDIST	100%	(60)
9	5930000	Maintenance of Overhead Lines	(3,756)	ALLDIST	100%	(3,756)
10	5940000	Underground Lines	(18)	ALLDIST	100%	(18)
11	5950000	Line Transformers	(97)	ALLDIST	100%	(97)
12	5980000	Misc Distribution Plant	(0)	ALLDIST	100%	(0)
13	9010000	Supervision & Engineering	(1)	ALLDIST	100%	(1)
14	9020000	Meter Reading	(24)	ALLDIST	100%	(24)
15	9030000	Customer Records & Collection Expense	(5)	ALLDIST	100%	(5)
16	9080000	Customer Assistance Expenses	(0)	ALLDIST	100%	(0)
17	9210000	Office Supplies	(16)	A&G2	93.2887%	(15)
18	9230001	Outside Services	(3)	A&G5	81.9317%	(3)
19	9230024	Outside Services - All Other	(0)	A&G4	98.6059%	(0)
20	9250000	Injuries & Damages	(0)	A&G8	96.1338%	(0)
21	9280000	Regulatory Commission Expenses	(30)	A&G16	95.5656%	(28)
22	9301000	General Advertising Expenses	(2)	A&G17	99.9565%	(2)
23	9302007	Assoc Business Development Exp	(0)	A&G19	76.0346%	(0)
24	9350000	Maintenance of General Plant	(64)	A&G21	91.6423%	(58)
25		Total Adjustment to Flow through to the Schedule C-3	\$ (4,091)			\$ (4,083)

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Remove Promotional Advertising Expenses  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Staff WPC-3.30

Schedule C-3.30  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To remove advertising expenses that are promotional in nature				
3						
4	9301000	General Advertising Expenses	<u>\$ (132)</u>	A&G17	99.9565%	<u>\$ (132)</u>

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Miscellaneous Expenses  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Staff WPC-3.31

Schedule C-3.31  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To remove expenses that are not appropriate for recovery.				
3						
4						
5	5800000	Supervision & Engineering	\$ (1)	ALLDIST	100%	\$ (1)
6	5880000	Miscellaneous Distribution Exp	(0)	ALLDIST	100%	(0)
7	9010000	Supervision & Engineering	(1)	ALLDIST	100%	(1)
8	9020000	Meter Reading	(1)	ALLDIST	100%	(1)
9	9030000	Customer Records & Collection Expense	(0)	ALLDIST	100%	(0)
10	9050000	Misc Customer Accounts Expenses	(0)	ALLDIST	100%	(0)
11	9100000	Misc Customer Service	(1)	ALLDIST	100%	(1)
12	9210000	Office Supplies	(6)	A&G2	93.2887%	(6)
13	9250000	Injuries & Damages	(4)	A&G8	96.1338%	(4)
Total Adjustment to Flow through to the Schedule C-3			\$ (15)			\$ (14)



OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Pole Attachments  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):  
Staff WPC-3.31

Schedule C-3.32  
Page 1 of 1

LINE NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
			CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)
1	Current Tariffed Pole Attachment Rate per Year (a)	\$ 9.59			
2					
3	Staff Proposed Pole Attachment Rate per Year (b)	9.38			
4					
5	Rate Reduction (3) - (1)	(0.21)			
6					
7	Number of Attachments billed at Tariffed Rate 2019 (c)	689,234			
8					
9	Adjustment (5) x (7)	<u>\$ (145)</u>	OTHREV5	98.8029%	<u>\$ (143)</u>

- (a) Company Tariff
- (b) Staff WPC-3.32
- (c) Staff DR #63

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Enhanced Service Reliability Rider (ESRR) Baseline  
Test Year: Twelve Months Ended November 30, 2020  
(\$000)

Work Paper Reference No(s):

Schedule C-3.33  
Page 1 of 1

LINE NO	ACCT NO	PURPOSE AND DESCRIPTION	TOTAL ADJUSTMENT	ALLOCATION		JURISDICTIONAL AMOUNT
		ACCOUNT TITLE		CODE	%	
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1		<b>Purpose and Description:</b>				
2		To adjust expenses in order to shift a portion of vegetation management program costs from base rates into the ESRR				
3						
4		Staff Adjusted Vegetation Management	\$ 35,091			
5		Test Year Vegetation Management	45,091			
6		Total Adjustment	<u>\$ (10,000)</u>	ALLDIST	100.00%	<u>\$ (10,000)</u>

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Adjusted Jurisdictional Income Taxes**  
**Test Year: Twelve Months Ended November 30, 2020**  
**(\$000)**

**Work Paper Reference No(s):**  
Schedule C-4.1, Company WP C-4.1a thru q, Staff WPC-4a & b

**Schedule C-4**  
**Page 1 of 2**

LINE NO	DESCRIPTION	AT CURRENT RATES			AT PROPOSED RATES	
		UNADJUSTED	ADJUSTMENTS	ADJUSTED	PERFORMA ADJUSTMENTS	PROFORMA
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1	Operating Income Before State & Local Income Taxes	\$ 119,517	\$ (117,430)	\$ 2,087	\$ -	\$ 2,087
2	Current State & Local Income Tax Expense	<u>(114)</u>	<u>114</u>	<u>0</u>	<u>0</u>	<u>0</u>
3	Operating Income Before Federal Income Taxes	119,631	(117,544)	2,087	0	2,087
Reconciling Items:						
4	Interest Charges (Synchronization)	<u>(6,194)</u>	<u>(62,881)</u>	<u>(69,075)</u>	<u>0</u>	<u>(69,075)</u>
Schedule M Reconciling Items:						
5	Tax Accelerated Depreciation	243,413	(26,081)	217,332	0	217,332
6	Book Depreciation (C-2 Line 25)	<u>213,766</u>	<u>(26,081)</u>	<u>176,155</u>	<u>0</u>	<u>176,155</u>
7	Excess of Tax Over Book Depreciation	<u>(29,647)</u>	<u>0</u>	<u>(41,178)</u>	<u>0</u>	<u>(41,178)</u>
Other Reconciling Items						
8	Permanent Differences	169		169		
9	Temporary Differences	(63,623)		(63,623)		
10	Total Other Reconciling Items	<u>(63,455)</u>	<u>0</u>	<u>(63,455)</u>	<u>0</u>	<u>(63,455)</u>
11	Total Schedule M Reconciling Items (Line 7 + Line 10)	<u>(93,102)</u>	<u>0</u>	<u>(104,632)</u>	<u>0</u>	<u>(104,632)</u>
12	Federal Taxable Income	<u>\$ 20,335</u>	<u>\$ (180,425)</u>	<u>\$ (171,621)</u>	<u>\$ -</u>	<u>\$ (171,621)</u>
Federal, State, Local Income Taxes:						
Federal @ 20.835213% Effective Rate						
State & Local @ Various Effective Tax Rates						

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Adjusted Jurisdictional Income Taxes**  
**Test Year: Twelve Months Ended November 30, 2020**  
**(\$000)**

**Work Paper Reference No(s):**  
Schedule C-4.1, Company WP C-4.1a thru q, Staff WPC-4a & b

**Schedule C-4**  
**Page 2 of 2**

LINE NO	DESCRIPTION	AT CURRENT RATES			AT PROPOSED RATES	
		UNADJUSTED	ADJUSTMENTS	ADJUSTED	PERFORMA ADJUSTMENTS	PROFORMA
(A)	(B)	(C)	(D)	(E)	(F)	(G)
13	Current Federal Income Tax @ Effective Rates (Staff WPC-4b)	\$ 4,270	\$ (40,028)	\$ (35,758)	\$ 82,148	\$ 46,391
14	Adjustments	(6,563)	0	(6,563)	0	(6,563)
15	Current Federal Income Tax Expense	<u>(2,293)</u>	<u>(40,028)</u>	<u>(42,321)</u>	<u>82,148</u>	<u>39,827</u>
	Deferred Income Tax Expense (Net):					
16	Depreciation Related (Line 7 * 20.835213%) [WPC-4b]	5,154	3,425	8,579	0	8,579
17	Excess DFIT Reversal - Depreciation	0	0	0	0	0
18	Other Temporary Differences (Line 9 * 20.835213%) [WPC-4b]	20,240	(6,984)	13,256	0	13,256
21	Total Deferred Income Taxes (Net)	<u>25,394</u>	<u>(3,558)</u>	<u>21,835</u>	<u>0</u>	<u>21,835</u>
22	Amortization of Deferred Investment Tax Credits	<u>(3)</u>	<u>0</u>	<u>(3)</u>	<u>0</u>	<u>(3)</u>
23	Total Federal Income Tax Expense (Line 15 + Line 20 + Line 22)	<u>23,098</u>	<u>(43,586)</u>	<u>(20,489)</u>	<u>82,148</u>	<u>61,659</u>
24	Current State & Local Income Tax Expense	(71)	(1,276)	(1,347)	\$ 3,094	1,747
25	Deferred State & Local Income Tax Expense (Line 19)	<u>262</u>	<u>561</u>	<u>822</u>	<u>0</u>	<u>822</u>
26	Total State & Local Income Tax Expense	<u>191</u>	<u>(715)</u>	<u>(524)</u>	<u>3,094</u>	<u>2,570</u>
25	Total Income Tax Expense	<u>23,288</u>	<u>(44,301)</u>	<u>(21,013)</u>	<u>85,242</u>	<u>64,229</u>

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Development of Jurisdictional Income Taxes Before Adjustments**  
**Test Year: Twelve Months Ended November 30, 2020**  
**(\$000)**

**Work Paper Reference No(s):**  
Company WP C-4.1a thru q, Staff WPC-4a & b

**Schedule C-4.1**  
**Page 1 of 2**

LINE NO	ACCOUNT TITLE	TOTAL UTILITY	ALLOCATION %	JURISDICTION	ALLOCATION CODE/ EXPLANATION
(A)	(B)	(C)	(D)	(E)	(F)
1	Operating Income Before State & Local Income Taxes	\$ 378,364		\$ 119,517	DIRECT
2	Current State & Local Income Tax Expense	<u>492</u>		<u>(114)</u>	DIRECT
3	Operating Income Before Federal Income Taxes	377,872		119,631	DIRECT
4	Reconciling Items: Interest Charges	<u>(122,376)</u>		<u>(6,194)</u>	DIRECT
	Schedule M Reconciling Items:				
5	Tax Accelerated Depreciation	354,600		243,413	DIRECT
6	Book Depreciation	<u>281,562</u>		<u>213,766</u>	DIRECT
7	Excess of Tax Over Book Depreciation	<u>(73,038)</u>		<u>(29,647)</u>	DIRECT
	Other Reconciling Items				
	Permanent Differences	1,085		169	
8	Temporary Differences	<u>(85,511)</u>		<u>(63,623)</u>	DIRECT
9	Total Schedule M Reconciling Items	<u>(157,464)</u>		<u>(93,102)</u>	DIRECT
10	Federal Taxable Income	<u>\$ 98,032</u>		<u>\$ 20,335</u>	DIRECT
	Federal, State, Local Income Taxes:				
11	Federal @ 20.835213% Effective Rate				
12	State & Local @ Various Effective Tax Rates				

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Development of Jurisdictional Income Taxes Before Adjustments**  
**Test Year: Twelve Months Ended November 30, 2020**  
**(\$000)**

**Schedule C-4.1**  
**Page 2 of 2**

**Work Paper Reference No(s):**  
WP C-4.1a thru q

LINE NO	ACCOUNT TITLE	TOTAL UTILITY	ALLOCATION %	JURISDICTION	ALLOCATION CODE/ EXPLANATION
(A)	(B)	(C)	(D)	(E)	(F)
13	Current Federal Income Tax @ Statutory Rates	\$ 20,587		\$ 4,270	DIRECT
14	Adjustments	6,458		(6,563)	DIRECT
15	Current Federal Income Tax Expense	<u>27,045</u>		<u>(2,293)</u>	DIRECT
	Deferred Income Tax Expense (Net):				
16	Depreciation Related	2,635		5,154	DIRECT
17	Excess DFIT Reversal - Depreciation	0		0	DIRECT
18	Other Temporary Differences	(3,898)		20,240	DIRECT
19	Total Deferred Federal Income Taxes (Net)	<u>(1,263)</u>		<u>25,394</u>	DIRECT
20	Amortization of Deferred Investment Tax Credits	<u>(4)</u>		<u>(3)</u>	DIRECT
21	Total Federal Income Tax Expense	<u>25,778</u>		<u>23,098</u>	DIRECT
22	Current State & Local Income Tax Expense	330		(71)	DIRECT
23	Deferred State & Local Income Tax Expense	<u>861</u>		<u>262</u>	DIRECT
24	Total State & Local Income Tax Expense	<u>1,190</u>		<u>191</u>	DIRECT
25	Total Income Tax Expense	<u>26,968</u>		<u>23,288</u>	DIRECT

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Rate of Return Summary**

Work Paper Reference No(s):

Schedule D-1  
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LINE NO	CLASS OF CAPITAL	(\$) AMOUNT	% OF TOTAL	(%) COST	WEIGHTED COST (%)
1	Long-Term Debt	2,100,000,000	45.57%	5.22%	2.38%
2	Preferred Stock	-	0.00%	0.00%	0.00%
3	Common Equity	<u>2,508,479,717</u>	<u>54.43%</u>	8.76% - 9.78%	<u>4.77% - 5.32%</u>
4	Total Capital	<u><u>4,608,479,717</u></u>	<u><u>100%</u></u>		<u><u>7.15% - 7.70%</u></u>

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Equity Issuance Cost Adjustment**

Work Paper Reference No(s):

Schedule D-1.2  
Page 1 of 1

LINE NO	ADJUSTMENT	AMOUNT
1	Retained Earnings <sup>1</sup>	\$ 1,348,500,000
2	Total Common Equity <sup>2</sup>	\$ 2,508,479,717
3	Ratio of (1) to (2)	0.53758
4	Generic Issuance Cost, f	3.50%
5	External Equity Ratio, w [1.0 - (3)]	0.46242
6	Net Adjustment Factor, $(w/(1 - f)) + (1 - w)$	1.01677
7	Low End Equity Cost [8.62 x Line (6)]	8.76%
8	High End Equity Cost [9.62% x Line (6)]	9.78%

Sources:

- 1 AEP, Inc. Form 10-K filed with the Securities and Exchange Commission for fiscal year end December 31, 2019, page 126, Ohio Power Company Consolidated Statements of Changes in Common Shareholder's Equity
- 2 Applicant's Schedule D-1



**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Capital Asset Pricing Model**

**Work Paper Reference No(s):**

**Schedule D-1.3**  
**Page 1 of 1**

Year	Historical View	
	S&P 500 Return <sup>1</sup>	LT Composite Yield for US Treasury Bonds <sup>2</sup>
1990*	-3.42%	8.58%
1991*	30.95%	8.00%
1992*	7.60%	7.34%
1993*	10.17%	6.31%
1994**	1.19%	7.43%
1995**	38.02%	6.92%
1996**	23.06%	6.77%
1997**	33.67%	6.65%
1998**	28.73%	5.65%
1999**	21.11%	6.04%
2000	-9.11%	6.19%
2001	-11.98%	5.60%
2002	-22.27%	5.36%
2003	28.72%	4.80%
2004	10.82%	4.89%
2005	4.79%	4.57%
2006	15.74%	4.97%
2007	5.46%	4.87%
2008	-37.22%	4.24%
2009	27.11%	3.97%
2010	14.87%	3.88%
2011	2.07%	3.52%
2012	15.88%	2.51%
2013	32.43%	3.10%
2014	13.81%	3.08%
2015	1.31%	2.63%
2016	11.93%	2.35%
2017	21.94%	2.75%
2018	-4.41%	3.06%
2019	31.10%	2.49%
Average =	<b>11.47%</b>	<b>4.95%</b>
ERP =	6.52%	
R <sub>f</sub> =	2.5% <sup>3</sup>	
β =	0.78	
CAPM =	7.59%	

<sup>1</sup> Investopedia.com <https://www.investopedia.com/ask/answers/042415/what-average-annual-return-sp-500.asp#historical-sp-500-returns>

<sup>2</sup> U.S. Department of the Treasury <https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yield>

<sup>3</sup> Duff & Phelps U.S. Recommended Normalized Risk-Free Rate (effective June 30, 2020)

\* Annual composite average derived from daily closing yields of the 10-year and 30-year treasury bonds

\*\* Annual composite average derived from daily closing yields of the 20-year and 30-year treasury bonds

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**DCF Price, Dividend, and Growth Rate**

Work Paper Reference No(s):

Schedule D-1.4  
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DATE	Stock Prices <sup>1</sup> (\$):				
	NEE	AEP	ED	WEC	XEL
9/3/2019	220.857651	89.888329	87.298714	95.083687	63.452259
9/4/2019	219.447647	90.149925	87.500977	95.005844	63.733063
9/5/2019	215.227524	88.677292	87.529861	92.748672	63.084312
9/6/2019	215.550629	88.251007	87.780281	90.608231	62.745403
9/9/2019	215.305847	88.531967	87.05793	88.020256	61.380112
9/10/2019	213.572739	88.251007	86.03701	87.854866	60.99279
9/11/2019	215.472305	88.832298	86.614883	88.798592	61.244553
9/12/2019	216.138138	89.152016	86.865303	89.071022	61.463818
9/13/2019	213.935043	88.686981	86.499306	88.691574	61.01553
9/16/2019	213.758789	88.851685	86.614883	88.837509	61.229931
9/17/2019	217.58728	89.83989	87.578018	90.28717	62.10701
9/18/2019	219.232239	90.12085	88.10775	90.627686	62.379883
9/19/2019	220.211395	90.275864	88.493004	90.948761	62.623512
9/20/2019	221.014313	90.275864	88.993835	91.162796	62.974354
9/23/2019	220.583496	90.489014	89.330933	91.415756	62.954853
9/24/2019	223.746124	91.641922	90.496323	92.427582	63.763718
9/25/2019	224.588211	91.293137	90.52523	92.76812	63.393394
9/26/2019	226.889221	91.351273	91.160889	93.303223	63.900158
9/27/2019	226.438797	91.264069	91.132004	92.301117	63.695503
9/30/2019	228.132767	90.769974	90.987534	92.524895	63.237476
10/1/2019	227.192764	90.314629	90.631165	92.612457	63.295929
10/2/2019	224.333633	89.258598	89.253883	91.756279	61.726944
10/3/2019	225.371536	89.617065	89.590981	92.242737	61.853634
10/4/2019	228.72023	90.692474	90.669693	93.478348	62.984085
10/7/2019	227.70192	90.789345	90.400024	92.641647	62.643002
10/8/2019	225.17572	89.675194	89.571724	91.620064	61.970577
10/9/2019	228.495041	89.985214	89.918449	92.320572	62.292168
10/10/2019	227.163361	89.723633	89.619881	92.57354	62.321411
10/11/2019	224.754654	89.462044	88.820465	91.269814	61.717197
10/14/2019	224.128006	89.161705	87.88623	90.209335	61.668468
10/15/2019	222.796341	88.880753	87.395027	89.674225	61.541782
10/16/2019	225.116959	89.713943	87.491333	90.248245	61.873123
10/17/2019	226.272339	90.101479	87.934387	90.38446	62.048531
10/18/2019	227.633377	91.205948	88.117378	90.442833	62.379883
10/21/2019	227.946701	91.535355	89.263512	90.744431	62.652748
10/22/2019	231.315018	91.21563	89.841393	90.763893	62.574783
10/23/2019	231.079987	91.496597	90.245911	90.627686	62.798935
10/24/2019	232.597687	92.736702	90.814163	91.464401	62.896385
10/25/2019	231.941635	91.409409	89.879921	91.250359	62.019302
10/28/2019	228.367722	90.459946	87.732124	90.024475	60.849861
10/29/2019	227.75087	90.266174	88.049957	89.936913	60.986301
10/30/2019	230.55127	91.167191	88.281113	91.250359	61.707451

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**DCF Price, Dividend, and Growth Rate**

Work Paper Reference No(s):

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DATE	Stock Prices <sup>1</sup> (\$):				
	NEE	AEP	ED	WEC	XEL
10/31/2019	233.371216	91.448151	88.820465	91.843842	61.892612
11/1/2019	230.796036	90.64402	87.761024	90.997398	61.49305
11/4/2019	224.813431	89.907707	86.605255	89.158577	60.079983
11/5/2019	222.37532	88.551346	85.06424	88.535904	58.998249
11/6/2019	222.747421	89.113266	85.353188	88.740211	59.699913
11/7/2019	218.439117	87.219315	84.004784	86.463593	58.793598
11/8/2019	217.45018	86.955719	84.678978	85.451752	58.549969
11/11/2019	217.58728	86.662842	84.274467	84.780426	58.540218
11/12/2019	218.566422	86.399254	83.944199	84.819344	58.637672
11/13/2019	223.158646	87.726974	84.993263	86.0242	60.070236
11/14/2019	225.077774	87.473145	84.740707	86.318062	59.738899
11/15/2019	226.595459	87.434097	85.216682	86.269081	59.319843
11/18/2019	226.595459	88.010086	84.964119	86.151535	59.329594
11/19/2019	227.809631	88.517746	84.391022	86.32785	59.758385
11/20/2019	230.316238	89.288994	84.808708	86.396423	60.118961
11/21/2019	230.237915	88.908249	84.332741	86.523773	60.128708
11/22/2019	228.514618	89.367088	83.720795	86.719673	59.699913
11/25/2019	227.7117	88.732521	83.575089	86.29847	59.251629
11/26/2019	230.022507	89.328041	83.963631	87.20945	59.621952
11/27/2019	229.431885	89.415901	84.245331	87.287819	59.992275
11/29/2019	230.170166	89.181602	84.400742	86.837219	59.924061
12/2/2019	227.640274	88.137001	83.099136	85.779305	59.641445
12/3/2019	228.60498	88.722755	83.817932	86.464989	59.894817
12/4/2019	230.603287	89.845459	84.293884	87.268227	60.430809
12/5/2019	230.898621	90.265251	84.206474	87.620865	60.557503
12/6/2019	230.731277	90.196915	84.303604	87.248634	60.421066
12/9/2019	230.613144	89.679497	84.080193	86.954765	60.157944
12/10/2019	230.790329	89.757599	84.313316	87.36618	60.226154
12/11/2019	232.099564	89.962616	85.080681	87.699226	60.576996
12/12/2019	230.248917	88.976585	85.012688	86.964561	59.797367
12/13/2019	233.251312	89.86499	85.313805	87.356384	60.674442
12/16/2019	235.731979	90.821724	85.702347	88.776733	61.424835
12/17/2019	236.076523	91.007217	85.993759	89.227318	61.843884
12/18/2019	236.539169	91.524628	86.450294	89.785675	62.165482
12/19/2019	236.893539	91.739418	87.130226	90.295036	62.223957
12/20/2019	238.921402	92.647339	88.033592	90.95134	62.516315
12/23/2019	235.052734	91.524628	87.207947	89.60936	61.415092
12/24/2019	236.755722	91.612488	87.101097	89.746498	61.655396
12/26/2019	238.183105	91.651543	87.081673	89.873833	61.586739
12/27/2019	238.724518	91.954193	87.363365	90.422379	61.910412
12/30/2019	237.52356	91.797989	87.606201	90.28524	62.077152
12/31/2019	238.379974	92.266594	87.878181	90.344017	62.273323
1/2/2020	234.895248	91.241516	86.314293	88.815918	61.184597

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**DCF Price, Dividend, and Growth Rate**

Work Paper Reference No(s):

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DATE	Stock Prices <sup>1</sup> (\$):				
	NEE	AEP	ED	WEC	XEL
1/3/2020	236.568695	91.143898	86.090881	89.37426	61.478848
1/6/2020	237.749985	91.446533	85.809196	89.442818	61.390568
1/7/2020	237.543259	91.466057	85.158394	89.099983	61.263062
1/8/2020	237.434967	91.192703	84.478447	89.217529	61.204208
1/9/2020	239.295471	91.651543	84.391022	90.108917	61.34153
1/10/2020	239.748291	92.100632	84.983543	90.647675	61.43961
1/13/2020	242.553787	92.383736	85.274948	91.734978	62.155621
1/14/2020	243.863037	92.725441	85.265244	92.028839	62.253708
1/15/2020	247.652954	94.306984	86.411438	93.214111	63.234539
1/16/2020	248.332184	95.00013	86.615417	94.203445	63.78381
1/17/2020	249.444519	96.220451	87.654762	94.448334	64.117302
1/21/2020	252.880066	96.981941	88.227867	95.672775	64.735222
1/22/2020	255.843063	97.626274	88.548416	96.221329	64.951012
1/23/2020	256.020264	98.57325	90.112289	96.681702	65.617973
1/24/2020	259.603455	99.735008	90.92823	96.936401	65.88279
1/27/2020	262.576294	99.364021	90.733955	96.485802	65.637589
1/28/2020	261.660797	99.764297	91.481895	96.485802	65.931847
1/29/2020	261.611603	100.369568	91.734444	96.671921	66.128014
1/30/2020	265.716522	101.628952	92.025848	98.552658	67.442337
1/31/2020	264.013519	101.746109	91.307045	97.847374	67.86409
2/3/2020	262.645203	101.746109	91.161346	98.826927	68.119102
2/4/2020	260.410645	100.428146	89.888878	97.602493	67.971985
2/5/2020	262.546753	99.695946	90.724243	97.96492	67.971985
2/6/2020	264.141449	99.822868	90.792229	97.85717	67.971985
2/7/2020	265.332581	99.616432	90.121994	97.710243	67.393295
2/10/2020	267.49823	100.186569	90.413406	98.09227	67.736572
2/11/2020	267.901855	100.481476	90.510536	98.141251	67.638496
2/12/2020	266.041382	100.058784	90.209427	98.689796	67.707153
2/13/2020	271.170013	101.100754	90.957359	99.767204	68.482018
2/14/2020	274.172424	101.995285	91.598457	100.417809	68.913582
2/18/2020	277.637512	102.555588	92.396576	101.413406	69.796349
2/19/2020	270.382538	101.7397	91.93631	100.950104	69.433426
2/20/2020	272.705688	100.638748	92.621819	100.930389	69.315735
2/21/2020	273.256927	99.980148	88.31292	101.038818	69.462852
2/24/2020	269.66391	98.338554	87.049629	100.368515	69.021477
2/25/2020	266.110229	96.500351	86.422874	98.978622	67.520798
2/26/2020	265.263702	95.772942	85.874474	98.860329	67.040184
2/27/2020	253.171616	90.297668	81.467644	94.197754	63.607254
2/28/2020	250.113953	87.74189	77.188118	91.013802	61.125744
3/2/2020	265.540771	93.472733	82.779892	96.297394	64.607712
3/3/2020	262.374237	93.826614	82.104179	96.188965	64.450775
3/4/2020	279.265564	98.122292	86.187851	102.724442	67.873901
3/5/2020	273.269012	97.10981	85.766747	102.62587	67.922943

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
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Work Paper Reference No(s):

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DATE	Stock Prices <sup>1</sup> (\$):				
	NEE	AEP	ED	WEC	XEL
3/6/2020	268.974426	96.038338	86.080124	103.227173	68.805695
3/9/2020	258.544769	93.34494	86.824394	100.910675	66.68708
3/10/2020	253.052872	93.109032	87.549072	100.595238	67.177505
3/11/2020	238.734344	88.194069	84.709114	96.060806	65.539513
3/12/2020	206.703217	81.136177	82.055214	90.333633	60.504845
3/13/2020	219.240585	84.999344	86.246605	98.002724	65.983742
3/16/2020	199.261932	80.271149	77.903008	91.35881	57.612381
3/17/2020	219.438477	89.648888	91.93631	100.99939	64.098213
3/18/2020	208.434891	86.778557	90.2911	103.039879	60.583817
3/19/2020	204.931961	79.435608	78.431816	89.121178	57.24712
3/20/2020	189.742645	70.234795	71.087097	73.033813	49.981403
3/23/2020	179.75827	68.809464	63.996998	69.879433	49.359474
3/24/2020	204.36792	70.824593	69.050171	79.066574	53.35759
3/25/2020	208.068787	72.04351	69.461472	79.58902	54.838375
3/26/2020	228.68071	80.408775	74.348152	85.533058	57.168144
3/27/2020	229.521805	81.98156	76.287163	87.80027	58.017124
3/30/2020	243.434616	82.286285	79.058578	90.58007	61.758575
3/31/2020	238.101044	78.619728	76.385094	86.873672	59.527527
4/1/2020	215.945435	73.301735	76.003166	82.329384	57.335968
4/2/2020	224.079391	75.483978	77.295837	86.755386	59.645985
4/3/2020	219.319733	71.266945	76.287163	84.034729	57.118786
4/6/2020	232.055008	77.253365	79.371948	89.97876	60.366638
4/7/2020	226.098038	77.410645	78.265335	86.508949	58.47123
4/8/2020	231.055588	81.883263	82.094383	90.885651	61.995499
4/9/2020	242.712265	84.842064	86.119293	96.819832	65.421043
4/13/2020	233.737213	82.079857	83.083473	93.665443	62.844482
4/14/2020	239.842621	84.783081	87.451134	97.914017	65.401299
4/15/2020	234.736649	82.187981	85.16938	95.508797	63.476288
4/16/2020	234.993912	82.620506	86.579567	97.549286	64.414116
4/17/2020	243.681992	84.910866	87.70575	98.909615	66.28978
4/20/2020	235.122559	81.499893	83.700439	94.513191	63.525642
4/21/2020	232.95549	81.067375	81.761429	93.783745	62.597687
4/22/2020	244.582474	83.554344	82.378387	95.025787	64.483223
4/23/2020	238.615601	81.608017	80.08683	93.044434	63.555256
4/24/2020	237.190674	81.814453	80.929024	92.433266	63.742821
4/27/2020	241.049866	82.197823	80.958405	90.215347	64.631294
4/28/2020	236.794876	83.190628	81.379501	93.379585	65.322327
4/29/2020	232.668518	81.716141	79.597183	91.979828	64.246292
4/30/2020	228.7005	81.696487	77.168533	89.259178	62.745766
5/1/2020	224.673111	80.005737	75.65062	87.198967	61.383442
5/4/2020	227.68129	81.637512	75.464546	87.691841	61.590752
5/5/2020	227.691177	81.893082	75.934616	88.303001	62.469349
5/6/2020	220.329071	77.479446	72.840042	83.729149	60.435741

**OHIO POWER COMPANY**  
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Work Paper Reference No(s):

Schedule D-1.4  
Page 5 of 7

DATE	Stock Prices <sup>1</sup> (\$):				
	NEE	AEP	ED	WEC	XEL
5/7/2020	222.13002	77.955513	72.536453	83.916435	59.191879
5/8/2020	227.325043	79.205185	72.64418	84.458595	59.537399
5/11/2020	224.999664	78.520836	71.136063	84.103729	59.359703
5/12/2020	225.543884	77.271172	70.853989	83.798149	58.036873
5/13/2020	227.710968	77.092651	70.725327	84.17852	57.316223
5/14/2020	229.798874	77.45961	70.903481	84.12886	57.454426
5/15/2020	225.464737	77.786911	69.636642	84.218246	57.148399
5/18/2020	232.985168	79.225014	72.358368	87.018906	59.359703
5/19/2020	228.08699	76.507484	70.151291	86.095284	58.935215
5/20/2020	230.353012	77.11248	70.012733	86.701096	59.478168
5/21/2020	226.503738	76.735603	69.201164	86.08535	59.379448
5/22/2020	231.401917	78.134033	69.458488	85.549049	59.596626
5/26/2020	231.857101	79.264687	70.458107	85.102142	60.277794
5/27/2020	238.605713	80.772232	70.517487	85.310699	60.939205
5/28/2020	248.728622	84.402214	72.397957	88.359642	63.190002
5/29/2020	252.884644	84.550987	74.288315	91.100708	64.19693
6/1/2020	254.367157	85.433685	74.298218	92.491096	64.907715
6/2/2020	255.312408	85.275002	74.050789	93.32534	65.22361
6/3/2020	258.277435	86.276718	74.892044	93.315407	65.964005
6/4/2020	250.626038	83.707954	74.060684	91.934937	64.19693
6/5/2020	253.103546	84.808853	74.555542	92.21302	64.423988
6/8/2020	259.172943	87.189178	76.911072	94.62635	66.092331
6/9/2020	257.372009	85.205582	75.911453	92.798973	65.519768
6/10/2020	255.50145	84.670006	76.158882	93.067116	66.072594
6/11/2020	247.083893	81.089607	73.902328	90.703445	64.246292
6/12/2020	245.671021	81.12928	74.605026	89.690445	63.252537
6/15/2020	247.322693	81.089607	74.822769	89.84935	63.113407
6/16/2020	246.924698	80.930916	75.584854	90.196945	63.341976
6/17/2020	247.750534	81.575584	74.515953	89.79969	63.491035
6/18/2020	247.680878	81.099518	74.100273	89.24353	64.10717
6/19/2020	240.994614	79.056412	70.705536	87.465813	63.610291
6/22/2020	245.800369	79.958954	70.685738	87.247322	64.743172
6/23/2020	241.989594	80.28624	70.210678	86.492531	63.789165
6/24/2020	240.457306	80.04821	70.794609	86.194595	63.282349
6/25/2020	237.959915	78.64978	69.893967	84.625435	62.507221
6/26/2020	235.034668	77.360435	70.54718	84.953171	61.920902
6/29/2020	237.044525	78.917557	71.952576	86.37336	62.069965
6/30/2020	238.964844	78.986984	71.190498	87.048698	62.109715
7/1/2020	245.024277	81.327637	72.348465	88.717171	63.789165
7/2/2020	245.163574	81.843369	73.05117	89.551407	63.699722
7/6/2020	245.720779	81.446655	72.348465	89.322983	63.182976
7/7/2020	245.481979	81.714439	71.754639	88.091484	63.202847
7/8/2020	251.999115	81.744186	71.685356	88.13121	63.371788

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**DCF Price, Dividend, and Growth Rate**

Work Paper Reference No(s):

Schedule D-1.4  
Page 6 of 7

DATE	Stock Prices <sup>1</sup> (\$):				
	NEE	AEP	ED	WEC	XEL
7/9/2020	250.72554	81.347466	70.972763	86.869926	62.845097
7/10/2020	258.297363	83.460007	71.734848	87.445953	63.371788
7/13/2020	254.954193	84.06501	71.418137	87.118217	63.769287
7/14/2020	261.232544	84.650162	71.428032	87.495605	64.236351
7/15/2020	257.700348	83.985657	70.774818	86.859993	63.799099
7/16/2020	267.033295	84.392296	71.101418	87.157944	64.584167
7/17/2020	273.998169	86.792458	73.308495	89.908936	65.975426
7/20/2020	272.95343	86.008934	72.506828	89.521614	65.53817
7/21/2020	274.94339	86.842041	73.516335	90.514748	65.806488
7/22/2020	279.012878	88.547943	74.981125	92.818832	67.952995
7/23/2020	279.56012	87.982613	75.466087	93.146568	67.843681
7/24/2020	278.843719	87.328033	74.802979	92.947937	67.456116
7/27/2020	276.236877	82.577309	73.991409	92.699654	67.088432
7/28/2020	278.634796	84.045166	75.574959	93.931152	67.943062
7/29/2020	280.02774	84.104683	75.911453	94.318474	68.300819
7/30/2020	280.923218	85.364265	76.148994	94.536972	68.56913
7/31/2020	279.291473	86.167618	76.040123	94.606491	68.608879
8/3/2020	276.197083	85.066719	75.129585	92.997597	68.330627
8/4/2020	283.619629	84.838608	75.119682	94.45752	69.493317
8/5/2020	282.356018	84.13443	72.902718	92.669861	69.354195
8/6/2020	281.390869	84.670006	73.160034	92.352058	69.662254
8/7/2020	286.335938	86.599998	74.337807	93.722595	71.888268
8/10/2020	282.216736	85.940002	74.605026	93.086983	71.997581
8/11/2020	276.396088	83.290001	72.506828	90.276398	70.079628
8/12/2020	283.161957	84.150002	73.496544	91.636993	71.033646
8/13/2020	282.9729	83.660004	73.011581	91.440002	70.834885
8/14/2020	279.092468	82.949997	72.774048	91.209999	70.28833
8/17/2020	281.569977	81.230003	73.645004	92.120003	69.761627
8/18/2020	281.629669	81.550003	73.349998	91.919998	69.562881
8/19/2020	280.923218	80.919998	73.440002	91.720001	69.145508
8/20/2020	280.694366	79.410004	72.400002	91.290001	68.579063
8/21/2020	280.992889	79.080002	72.199997	91.989998	69.175316
8/24/2020	281.211792	80.779999	74.32	92.239998	69.970329
8/25/2020	279.898407	79.769997	73.010002	92.279999	68.539314
8/26/2020	277.600006	78.610001	70.779999	92.040001	67.704559
8/27/2020	278.880005	78.370003	71.07	92.349998	68.201431
8/28/2020	279.549988	78.349998	70.919998	93.620003	68.221313

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**DCF Price, Dividend, and Growth Rate**

Work Paper Reference No(s):

Schedule D-1.4  
Page 7 of 7

<b>Average Stock Price:</b>	<b>242.37</b>	<b>87.16</b>	<b>81.48</b>	<b>90.98</b>	<b>63.27</b>
QUARTERLY DIV. <sup>2</sup> (\$)	1.25000	0.7000	0.74000	0.59000	0.40500
	1.25000	0.7000	0.74000	0.63250	0.40500
	1.40000	0.7000	0.76500	0.63250	0.43000
	1.40000	0.7000	0.76500	0.63250	0.43000
ANNUAL DIVIDEND (\$)	5.3000	2.8000	3.0100	2.4875	1.6700
YIELD	2.19%	3.21%	3.69%	2.73%	2.64%
REUTERS <sup>(3)</sup>	7.25%	3.63%	1.88%	6.73%	5.43%
YAHOO FINANCE <sup>(1)</sup>	8.07%	5.63%	2.55%	5.91%	6.10%
DCF GROWTH FACTOR	7.66%	4.63%	2.22%	6.32%	5.77%
VALUE LINE <sup>2</sup>					
21 EARNINGS (EPS)	9.75	4.65	4.50	3.95	2.90
23-25 EARNINGS (EPS)	12.25	5.5	5.00	4.75	3.50
	5.71%	4.20%	2.63%	4.61%	4.70%
VALUE LINE "BOXED" (Earnings) <sup>2</sup>	10.00%	6.00%	3.00%	6.00%	6.00%
VALUE LINE AVERAGE	7.85%	5.10%	2.82%	5.31%	5.35%
DCF GROWTH ESTIMATE	7.76%	4.86%	2.52%	5.81%	5.56%
DCF COST OF EQUITY ESTIMATE	9.06%	9.23%	8.88%	9.07%	8.90%
<b>DCF AVERAGE</b>	<b>9.03%</b>				

Sources:

<sup>1</sup> Yahoo Finance

<sup>2</sup> Value Line Investment Guide

<sup>3</sup> Reuters.com



**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**NEE Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.5

Stock Price =	\$	242.37
Annual Dividend =	\$	5.30
DCF Growth Estimate =		7.76%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.06%
Constant DCF =		10.11%

YEAR	GROWTH RATE	DIVIDEND
1	7.76%	\$5.71
2	7.76%	\$6.15
3	7.76%	\$6.63
4	7.76%	\$7.15
5	7.76%	\$7.70
6	7.69%	\$8.29
7	7.61%	\$8.92
8	7.54%	\$9.60
9	7.47%	\$10.31
10	7.40%	\$11.08
11	7.33%	\$11.89
12	7.26%	\$12.75
13	7.18%	\$13.67
14	7.11%	\$14.64
15	7.04%	\$15.67
16	6.97%	\$16.76
17	6.90%	\$17.92
18	6.83%	\$19.14
19	6.75%	\$20.43
20	6.68%	\$21.80
21	6.61%	\$23.24
22	6.54%	\$24.76
23	6.47%	\$26.36
24	6.40%	\$28.05
25	6.32%	\$29.82
26	6.32%	\$31.70
27	6.32%	\$33.71
28	6.32%	\$35.84
29	6.32%	\$38.11
30	6.32%	\$40.52
31	6.32%	\$43.08
32	6.32%	\$45.81
33	6.32%	\$48.70
34	6.32%	\$51.78
35	6.32%	\$55.06
36	6.32%	\$58.54
37	6.32%	\$62.24
38	6.32%	\$66.18
39	6.32%	\$70.37
40	6.32%	\$74.82
41	6.32%	\$79.55
42	6.32%	\$84.58
43	6.32%	\$89.93
44	6.32%	\$95.62
45	6.32%	\$101.66
46	6.32%	\$108.09
47	6.32%	\$114.93
48	6.32%	\$122.20
49	6.32%	\$129.93
50	6.32%	\$138.14
51	6.32%	\$146.88
52	6.32%	\$156.17
53	6.32%	\$166.05
54	6.32%	\$176.55
55	6.32%	\$187.71
56	6.32%	\$199.58
57	6.32%	\$212.21
58	6.32%	\$225.63
59	6.32%	\$239.90

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**NEE Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.5

Stock Price =	\$	242.37
Annual Dividend =	\$	5.30
DCF Growth Estimate =		7.76%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.06%
Constant DCF =		10.11%

YEAR	GROWTH RATE	DIVIDEND
60	6.32%	\$255.07
61	6.32%	\$271.20
62	6.32%	\$288.35
63	6.32%	\$306.59
64	6.32%	\$325.98
65	6.32%	\$346.60
66	6.32%	\$368.52
67	6.32%	\$391.83
68	6.32%	\$416.61
69	6.32%	\$442.96
70	6.32%	\$470.97
71	6.32%	\$500.76
72	6.32%	\$532.43
73	6.32%	\$566.10
74	6.32%	\$601.90
75	6.32%	\$639.97
76	6.32%	\$680.45
77	6.32%	\$723.48
78	6.32%	\$769.24
79	6.32%	\$817.89
80	6.32%	\$869.62
81	6.32%	\$924.61
82	6.32%	\$983.09
83	6.32%	\$1,045.27
84	6.32%	\$1,111.38
85	6.32%	\$1,181.66
86	6.32%	\$1,256.40
87	6.32%	\$1,335.86
88	6.32%	\$1,420.35
89	6.32%	\$1,510.18
90	6.32%	\$1,605.69
91	6.32%	\$1,707.24
92	6.32%	\$1,815.21
93	6.32%	\$1,930.02
94	6.32%	\$2,052.08
95	6.32%	\$2,181.86
96	6.32%	\$2,319.86
97	6.32%	\$2,466.58
98	6.32%	\$2,622.58
99	6.32%	\$2,788.44
100	6.32%	\$2,964.79
101	6.32%	\$3,152.30
102	6.32%	\$3,351.67
103	6.32%	\$3,563.65
104	6.32%	\$3,789.03
105	6.32%	\$4,028.67
106	6.32%	\$4,283.46
107	6.32%	\$4,554.37
108	6.32%	\$4,842.41
109	6.32%	\$5,148.67
110	6.32%	\$5,474.30
111	6.32%	\$5,820.52
112	6.32%	\$6,188.64
113	6.32%	\$6,580.04
114	6.32%	\$6,996.19
115	6.32%	\$7,438.67
116	6.32%	\$7,909.12
117	6.32%	\$8,409.34
118	6.32%	\$8,941.19

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**NEE Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.5

Stock Price =	\$	242.37
Annual Dividend =	\$	5.30
DCF Growth Estimate =		7.76%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.06%
Constant DCF =		10.11%

YEAR	GROWTH RATE	DIVIDEND
119	6.32%	\$9,506.67
120	6.32%	\$10,107.92
121	6.32%	\$10,747.20
122	6.32%	\$11,426.90
123	6.32%	\$12,149.60
124	6.32%	\$12,918.00
125	6.32%	\$13,735.00
126	6.32%	\$14,603.67
127	6.32%	\$15,527.28
128	6.32%	\$16,509.30
129	6.32%	\$17,553.43
130	6.32%	\$18,663.60
131	6.32%	\$19,843.98
132	6.32%	\$21,099.02
133	6.32%	\$22,433.42
134	6.32%	\$23,852.23
135	6.32%	\$25,360.76
136	6.32%	\$26,964.70
137	6.32%	\$28,670.09
138	6.32%	\$30,483.33
139	6.32%	\$32,411.24
140	6.32%	\$34,461.09
141	6.32%	\$36,640.59
142	6.32%	\$38,957.92
143	6.32%	\$41,421.82
144	6.32%	\$44,041.54
145	6.32%	\$46,826.95
146	6.32%	\$49,788.52
147	6.32%	\$52,937.40
148	6.32%	\$56,285.43
149	6.32%	\$59,845.20
150	6.32%	\$63,630.11
151	6.32%	\$67,654.40
152	6.32%	\$71,933.20
153	6.32%	\$76,482.62
154	6.32%	\$81,319.76
155	6.32%	\$86,462.84
156	6.32%	\$91,931.18
157	6.32%	\$97,745.37
158	6.32%	\$103,927.28
159	6.32%	\$110,500.16
160	6.32%	\$117,488.75
161	6.32%	\$124,919.33
162	6.32%	\$132,819.85
163	6.32%	\$141,220.05
164	6.32%	\$150,151.51
165	6.32%	\$159,647.85
166	6.32%	\$169,744.78
167	6.32%	\$180,480.30
168	6.32%	\$191,894.78
169	6.32%	\$204,031.17
170	6.32%	\$216,935.13
171	6.32%	\$230,655.19
172	6.32%	\$245,242.99
173	6.32%	\$260,753.39
174	6.32%	\$277,244.74
175	6.32%	\$294,779.09
176	6.32%	\$313,422.41
177	6.32%	\$333,244.82

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**NEE Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.5

Stock Price =	\$	242.37
Annual Dividend =	\$	5.30
DCF Growth Estimate =		7.76%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.06%
Constant DCF =		10.11%

YEAR	GROWTH RATE	DIVIDEND
178	6.32%	\$354,320.89
179	6.32%	\$376,729.93
180	6.32%	\$400,556.22
181	6.32%	\$425,889.41
182	6.32%	\$452,824.80
183	6.32%	\$481,463.72
184	6.32%	\$511,913.90
185	6.32%	\$544,289.91
186	6.32%	\$578,713.54
187	6.32%	\$615,314.30
188	6.32%	\$654,229.86
189	6.32%	\$695,606.65
190	6.32%	\$739,600.31
191	6.32%	\$786,376.35
192	6.32%	\$836,110.75
193	6.32%	\$888,990.60
194	6.32%	\$945,214.83
195	6.32%	\$1,004,994.97
196	6.32%	\$1,068,555.90
197	6.32%	\$1,136,136.75
198	6.32%	\$1,207,991.75
199	6.32%	\$1,284,391.22
200	6.32%	\$1,365,622.58
201	6.32%	\$1,451,991.42
202	6.32%	\$1,543,822.66
203	6.32%	\$1,641,461.76
204	6.32%	\$1,745,276.06
205	6.32%	\$1,855,656.09
206	6.32%	\$1,973,017.11
207	6.32%	\$2,097,800.63
208	6.32%	\$2,230,476.09
209	6.32%	\$2,371,542.61
210	6.32%	\$2,521,530.89
211	6.32%	\$2,681,005.18
212	6.32%	\$2,850,565.43
213	6.32%	\$3,030,849.52
214	6.32%	\$3,222,535.68
215	6.32%	\$3,426,345.04
216	6.32%	\$3,643,044.33
217	6.32%	\$3,873,448.77
218	6.32%	\$4,118,425.14
219	6.32%	\$4,378,895.05
220	6.32%	\$4,655,838.39
221	6.32%	\$4,950,297.02
222	6.32%	\$5,263,378.69
223	6.32%	\$5,596,261.22
224	6.32%	\$5,950,196.92
225	6.32%	\$6,326,517.28
226	6.32%	\$6,726,638.05
227	6.32%	\$7,152,064.45
228	6.32%	\$7,604,396.97
229	6.32%	\$8,085,337.26
230	6.32%	\$8,596,694.64
231	6.32%	\$9,140,392.83
232	6.32%	\$9,718,477.23
233	6.32%	\$10,333,122.59
234	6.32%	\$10,986,641.22
235	6.32%	\$11,681,491.64
236	6.32%	\$12,420,287.90

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**NEE Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.5

Stock Price =	\$	242.37
Annual Dividend =	\$	5.30
DCF Growth Estimate =		7.76%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.06%
Constant DCF =		10.11%

YEAR	GROWTH RATE	DIVIDEND
237	6.32%	\$13,205,809.36
238	6.32%	\$14,041,011.13
239	6.32%	\$14,929,035.27
240	6.32%	\$15,873,222.52
241	6.32%	\$16,877,124.92
242	6.32%	\$17,944,519.15
243	6.32%	\$19,079,420.76
244	6.32%	\$20,286,099.25
245	6.32%	\$21,569,094.16
246	6.32%	\$22,933,232.11
247	6.32%	\$24,383,645.01
248	6.32%	\$25,925,789.31
249	6.32%	\$27,565,466.58
250	6.32%	\$29,308,845.27
251	6.32%	\$31,162,484.00
252	6.32%	\$33,133,356.16
253	6.32%	\$35,228,876.19
254	6.32%	\$37,456,927.44
255	6.32%	\$39,825,891.85
256	6.32%	\$42,344,681.48
257	6.32%	\$45,022,772.03
258	6.32%	\$47,870,238.49
259	6.32%	\$50,897,793.04
260	6.32%	\$54,116,825.37
261	6.32%	\$57,539,445.49
262	6.32%	\$61,178,529.31
263	6.32%	\$65,047,767.08
264	6.32%	\$69,161,714.91
265	6.32%	\$73,535,849.48
266	6.32%	\$78,186,626.31
267	6.32%	\$83,131,541.65
268	6.32%	\$88,389,198.30
269	6.32%	\$93,979,375.59
270	6.32%	\$99,923,103.79
271	6.32%	\$106,242,743.25
272	6.32%	\$112,962,068.49
273	6.32%	\$120,106,357.63
274	6.32%	\$127,702,487.53
275	6.32%	\$135,779,034.89
276	6.32%	\$144,366,383.70
277	6.32%	\$153,496,839.63
278	6.32%	\$163,204,751.49
279	6.32%	\$173,526,640.51
280	6.32%	\$184,501,337.68
281	6.32%	\$196,170,129.88
282	6.32%	\$208,576,915.16
283	6.32%	\$221,768,367.92
284	6.32%	\$235,794,114.48
285	6.32%	\$250,706,919.77
286	6.32%	\$266,562,885.83
287	6.32%	\$283,421,662.91
288	6.32%	\$301,346,673.81
289	6.32%	\$320,405,352.52
290	6.32%	\$340,669,397.90
291	6.32%	\$362,215,043.38
292	6.32%	\$385,123,343.80
293	6.32%	\$409,480,480.32
294	6.32%	\$435,378,084.62
295	6.32%	\$462,913,583.61

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**NEE Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.5

Stock Price =	\$	242.37
Annual Dividend =	\$	5.30
DCF Growth Estimate =		7.76%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.06%
Constant DCF =		10.11%

YEAR	GROWTH RATE	DIVIDEND
296	6.32%	\$492,190,565.99
297	6.32%	\$523,319,171.93
298	6.32%	\$556,416,507.42
299	6.32%	\$591,607,084.81
300	6.32%	\$629,023,291.23
301	6.32%	\$668,805,886.66
302	6.32%	\$711,104,533.44
303	6.32%	\$756,078,359.31
304	6.32%	\$803,896,556.03
305	6.32%	\$854,739,015.93
306	6.32%	\$908,797,008.61
307	6.32%	\$966,273,900.52
308	6.32%	\$1,027,385,920.06
309	6.32%	\$1,092,362,970.96
310	6.32%	\$1,161,449,497.24
311	6.32%	\$1,234,905,402.78
312	6.32%	\$1,313,007,029.10
313	6.32%	\$1,396,048,194.93
314	6.32%	\$1,484,341,301.59
315	6.32%	\$1,578,218,508.22
316	6.32%	\$1,678,032,981.37
317	6.32%	\$1,784,160,223.64
318	6.32%	\$1,896,999,486.28
319	6.32%	\$2,016,975,271.20
320	6.32%	\$2,144,538,927.95
321	6.32%	\$2,280,170,351.70
322	6.32%	\$2,424,379,788.59
323	6.32%	\$2,577,709,755.30
324	6.32%	\$2,740,737,080.00
325	6.32%	\$2,914,075,072.34
326	6.32%	\$3,098,375,830.80
327	6.32%	\$3,294,332,695.83
328	6.32%	\$3,502,682,858.19
329	6.32%	\$3,724,210,132.33
330	6.32%	\$3,959,747,905.05
331	6.32%	\$4,210,182,270.70
332	6.32%	\$4,476,455,364.73
333	6.32%	\$4,759,568,907.95
334	6.32%	\$5,060,587,975.04
335	6.32%	\$5,380,645,001.33
336	6.32%	\$5,720,944,043.10
337	6.32%	\$6,082,765,307.17
338	6.32%	\$6,467,469,967.08
339	6.32%	\$6,876,505,283.83
340	6.32%	\$7,311,410,050.50
341	6.32%	\$7,773,820,381.14
342	6.32%	\$8,265,475,865.93
343	6.32%	\$8,788,226,115.43
344	6.32%	\$9,344,037,718.91
345	6.32%	\$9,935,001,642.60
346	6.32%	\$10,563,341,095.97
347	6.32%	\$11,231,419,895.44
348	6.32%	\$11,941,751,357.03
349	6.32%	\$12,697,007,751.54
350	6.32%	\$13,500,030,357.58
351	6.32%	\$14,353,840,150.54
352	6.32%	\$15,261,649,167.43
353	6.32%	\$16,226,872,590.68
354	6.32%	\$17,253,141,596.00

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**NEE Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.5

Stock Price =	\$	242.37
Annual Dividend =	\$	5.30
DCF Growth Estimate =		7.76%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.06%
Constant DCF =		10.11%

YEAR	GROWTH RATE	DIVIDEND
355	6.32%	\$18,344,317,012.92
356	6.32%	\$19,504,503,849.23
357	6.32%	\$20,738,066,734.05
358	6.32%	\$22,049,646,337.61
359	6.32%	\$23,444,176,829.43
360	6.32%	\$24,926,904,440.73
361	6.32%	\$26,503,407,200.78
362	6.32%	\$28,179,615,921.44
363	6.32%	\$29,961,836,508.95
364	6.32%	\$31,856,773,686.76
365	6.32%	\$33,871,556,218.73
366	6.32%	\$36,013,763,727.61
367	6.32%	\$38,291,455,209.56
368	6.32%	\$40,713,199,352.23
369	6.32%	\$43,288,106,770.10
370	6.32%	\$46,025,864,278.76
371	6.32%	\$48,936,771,336.70
372	6.32%	\$52,031,778,791.93
373	6.32%	\$55,322,530,079.19
374	6.32%	\$58,821,405,022.52
375	6.32%	\$62,541,566,408.32
376	6.32%	\$66,497,009,503.74
377	6.32%	\$70,702,614,707.02
378	6.32%	\$75,174,203,527.57
379	6.32%	\$79,928,598,106.62
380	6.32%	\$84,983,684,502.18
381	6.32%	\$90,358,479,976.48
382	6.32%	\$96,073,204,539.06
383	6.32%	\$102,149,357,014.49
384	6.32%	\$108,609,795,921.11
385	6.32%	\$115,478,825,464.86
386	6.32%	\$122,782,286,971.89
387	6.32%	\$130,547,656,103.71
388	6.32%	\$138,804,146,220.82
389	6.32%	\$147,582,818,283.51
390	6.32%	\$156,916,697,703.34
391	6.32%	\$166,840,898,584.95
392	6.32%	\$177,392,755,825.52
393	6.32%	\$188,611,965,568.79
394	6.32%	\$200,540,734,542.25
395	6.32%	\$213,223,938,839.01
396	6.32%	\$226,709,292,741.94
397	6.32%	\$241,047,528,225.03
398	6.32%	\$256,292,585,807.40
399	6.32%	\$272,501,817,477.76
400	6.32%	\$289,736,202,452.95

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**AEP Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.6

Stock Price =	\$	87.16
Annual Dividend =	\$	2.80
DCF Growth Estimate =		4.86%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.23%
Constant DCF =		8.23%

YEAR	GROWTH RATE	DIVIDEND
1	4.86%	\$2.94
2	4.86%	\$3.08
3	4.86%	\$3.23
4	4.86%	\$3.39
5	4.86%	\$3.55
6	4.94%	\$3.73
7	5.01%	\$3.91
8	5.08%	\$4.11
9	5.16%	\$4.32
10	5.23%	\$4.55
11	5.30%	\$4.79
12	5.38%	\$5.05
13	5.45%	\$5.32
14	5.52%	\$5.62
15	5.59%	\$5.93
16	5.67%	\$6.27
17	5.74%	\$6.63
18	5.81%	\$7.01
19	5.89%	\$7.43
20	5.96%	\$7.87
21	6.03%	\$8.34
22	6.11%	\$8.85
23	6.18%	\$9.40
24	6.25%	\$9.99
25	6.32%	\$10.62
26	6.32%	\$11.29
27	6.32%	\$12.00
28	6.32%	\$12.76
29	6.32%	\$13.57
30	6.32%	\$14.43
31	6.32%	\$15.34
32	6.32%	\$16.31
33	6.32%	\$17.34
34	6.32%	\$18.44
35	6.32%	\$19.61
36	6.32%	\$20.85
37	6.32%	\$22.16
38	6.32%	\$23.57
39	6.32%	\$25.06
40	6.32%	\$26.64
41	6.32%	\$28.33
42	6.32%	\$30.12
43	6.32%	\$32.02
44	6.32%	\$34.05
45	6.32%	\$36.20
46	6.32%	\$38.49
47	6.32%	\$40.92
48	6.32%	\$43.51
49	6.32%	\$46.26
50	6.32%	\$49.19
51	6.32%	\$52.30
52	6.32%	\$55.61
53	6.32%	\$59.13
54	6.32%	\$62.87
55	6.32%	\$66.84
56	6.32%	\$71.07
57	6.32%	\$75.56
58	6.32%	\$80.34
59	6.32%	\$85.42



**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**AEP Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.6

Stock Price =	\$	87.16
Annual Dividend =	\$	2.80
DCF Growth Estimate =		4.86%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.23%
Constant DCF =		8.23%

YEAR	GROWTH RATE	DIVIDEND
60	6.32%	\$90.83
61	6.32%	\$96.57
62	6.32%	\$102.68
63	6.32%	\$109.17
64	6.32%	\$116.08
65	6.32%	\$123.42
66	6.32%	\$131.22
67	6.32%	\$139.52
68	6.32%	\$148.35
69	6.32%	\$157.73
70	6.32%	\$167.71
71	6.32%	\$178.31
72	6.32%	\$189.59
73	6.32%	\$201.58
74	6.32%	\$214.33
75	6.32%	\$227.88
76	6.32%	\$242.30
77	6.32%	\$257.62
78	6.32%	\$273.91
79	6.32%	\$291.24
80	6.32%	\$309.66
81	6.32%	\$329.24
82	6.32%	\$350.06
83	6.32%	\$372.20
84	6.32%	\$395.74
85	6.32%	\$420.77
86	6.32%	\$447.38
87	6.32%	\$475.68
88	6.32%	\$505.76
89	6.32%	\$537.75
90	6.32%	\$571.76
91	6.32%	\$607.92
92	6.32%	\$646.37
93	6.32%	\$687.25
94	6.32%	\$730.71
95	6.32%	\$776.93
96	6.32%	\$826.06
97	6.32%	\$878.31
98	6.32%	\$933.86
99	6.32%	\$992.92
100	6.32%	\$1,055.72
101	6.32%	\$1,122.48
102	6.32%	\$1,193.48
103	6.32%	\$1,268.96
104	6.32%	\$1,349.21
105	6.32%	\$1,434.54
106	6.32%	\$1,525.27
107	6.32%	\$1,621.74
108	6.32%	\$1,724.30
109	6.32%	\$1,833.36
110	6.32%	\$1,949.31
111	6.32%	\$2,072.59
112	6.32%	\$2,203.67
113	6.32%	\$2,343.04
114	6.32%	\$2,491.23
115	6.32%	\$2,648.79
116	6.32%	\$2,816.31
117	6.32%	\$2,994.43
118	6.32%	\$3,183.81

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**AEP Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.6

Stock Price =	\$	87.16
Annual Dividend =	\$	2.80
DCF Growth Estimate =		4.86%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.23%
Constant DCF =		8.23%

YEAR	GROWTH RATE	DIVIDEND
119	6.32%	\$3,385.17
120	6.32%	\$3,599.27
121	6.32%	\$3,826.90
122	6.32%	\$4,068.94
123	6.32%	\$4,326.28
124	6.32%	\$4,599.89
125	6.32%	\$4,890.81
126	6.32%	\$5,200.13
127	6.32%	\$5,529.01
128	6.32%	\$5,878.70
129	6.32%	\$6,250.49
130	6.32%	\$6,645.81
131	6.32%	\$7,066.12
132	6.32%	\$7,513.02
133	6.32%	\$7,988.18
134	6.32%	\$8,493.39
135	6.32%	\$9,030.56
136	6.32%	\$9,601.69
137	6.32%	\$10,208.95
138	6.32%	\$10,854.62
139	6.32%	\$11,541.12
140	6.32%	\$12,271.04
141	6.32%	\$13,047.12
142	6.32%	\$13,872.28
143	6.32%	\$14,749.64
144	6.32%	\$15,682.48
145	6.32%	\$16,674.32
146	6.32%	\$17,728.89
147	6.32%	\$18,850.15
148	6.32%	\$20,042.33
149	6.32%	\$21,309.90
150	6.32%	\$22,657.65
151	6.32%	\$24,090.63
152	6.32%	\$25,614.25
153	6.32%	\$27,234.22
154	6.32%	\$28,956.65
155	6.32%	\$30,788.01
156	6.32%	\$32,735.20
157	6.32%	\$34,805.54
158	6.32%	\$37,006.82
159	6.32%	\$39,347.32
160	6.32%	\$41,835.84
161	6.32%	\$44,481.75
162	6.32%	\$47,295.00
163	6.32%	\$50,286.17
164	6.32%	\$53,466.52
165	6.32%	\$56,848.01
166	6.32%	\$60,443.36
167	6.32%	\$64,266.11
168	6.32%	\$68,330.62
169	6.32%	\$72,652.19
170	6.32%	\$77,247.08
171	6.32%	\$82,132.57
172	6.32%	\$87,327.05
173	6.32%	\$92,850.05
174	6.32%	\$98,722.36
175	6.32%	\$104,966.06
176	6.32%	\$111,604.64
177	6.32%	\$118,663.07

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**AEP Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.6

Stock Price =	\$	87.16
Annual Dividend =	\$	2.80
DCF Growth Estimate =		4.86%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.23%
Constant DCF =		8.23%

YEAR	GROWTH RATE	DIVIDEND
178	6.32%	\$126,167.92
179	6.32%	\$134,147.42
180	6.32%	\$142,631.58
181	6.32%	\$151,652.31
182	6.32%	\$161,243.57
183	6.32%	\$171,441.42
184	6.32%	\$182,284.24
185	6.32%	\$193,812.81
186	6.32%	\$206,070.51
187	6.32%	\$219,103.44
188	6.32%	\$232,960.65
189	6.32%	\$247,694.25
190	6.32%	\$263,359.68
191	6.32%	\$280,015.87
192	6.32%	\$297,725.48
193	6.32%	\$316,555.14
194	6.32%	\$336,575.67
195	6.32%	\$357,862.41
196	6.32%	\$380,495.43
197	6.32%	\$404,559.87
198	6.32%	\$430,146.27
199	6.32%	\$457,350.89
200	6.32%	\$486,276.06
201	6.32%	\$517,030.60
202	6.32%	\$549,730.21
203	6.32%	\$584,497.92
204	6.32%	\$621,464.50
205	6.32%	\$660,769.04
206	6.32%	\$702,559.40
207	6.32%	\$746,992.79
208	6.32%	\$794,236.37
209	6.32%	\$844,467.87
210	6.32%	\$897,876.26
211	6.32%	\$954,662.47
212	6.32%	\$1,015,040.12
213	6.32%	\$1,079,236.36
214	6.32%	\$1,147,492.70
215	6.32%	\$1,220,065.91
216	6.32%	\$1,297,229.01
217	6.32%	\$1,379,272.29
218	6.32%	\$1,466,504.41
219	6.32%	\$1,559,253.52
220	6.32%	\$1,657,868.55
221	6.32%	\$1,762,720.49
222	6.32%	\$1,874,203.80
223	6.32%	\$1,992,737.87
224	6.32%	\$2,118,768.63
225	6.32%	\$2,252,770.21
226	6.32%	\$2,395,246.73
227	6.32%	\$2,546,734.17
228	6.32%	\$2,707,802.44
229	6.32%	\$2,879,057.48
230	6.32%	\$3,061,143.56
231	6.32%	\$3,254,745.66
232	6.32%	\$3,460,592.14
233	6.32%	\$3,679,457.39
234	6.32%	\$3,912,164.77
235	6.32%	\$4,159,589.74
236	6.32%	\$4,422,663.11

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**AEP Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.6

Stock Price =	\$	87.16
Annual Dividend =	\$	2.80
DCF Growth Estimate =		4.86%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.23%
Constant DCF =		8.23%

YEAR	GROWTH RATE	DIVIDEND
237	6.32%	\$4,702,374.56
238	6.32%	\$4,999,776.37
239	6.32%	\$5,315,987.36
240	6.32%	\$5,652,197.13
241	6.32%	\$6,009,670.50
242	6.32%	\$6,389,752.27
243	6.32%	\$6,793,872.33
244	6.32%	\$7,223,550.98
245	6.32%	\$7,680,404.66
246	6.32%	\$8,166,152.06
247	6.32%	\$8,682,620.57
248	6.32%	\$9,231,753.15
249	6.32%	\$9,815,615.63
250	6.32%	\$10,436,404.52
251	6.32%	\$11,096,455.21
252	6.32%	\$11,798,250.83
253	6.32%	\$12,544,431.52
254	6.32%	\$13,337,804.44
255	6.32%	\$14,181,354.25
256	6.32%	\$15,078,254.39
257	6.32%	\$16,031,879.01
258	6.32%	\$17,045,815.64
259	6.32%	\$18,123,878.72
260	6.32%	\$19,270,123.93
261	6.32%	\$20,488,863.45
262	6.32%	\$21,784,682.19
263	6.32%	\$23,162,455.02
264	6.32%	\$24,627,365.12
265	6.32%	\$26,184,923.51
266	6.32%	\$27,840,989.72
267	6.32%	\$29,601,793.89
268	6.32%	\$31,473,960.16
269	6.32%	\$33,464,531.64
270	6.32%	\$35,580,996.87
271	6.32%	\$37,831,318.00
272	6.32%	\$40,223,960.75
273	6.32%	\$42,767,926.26
274	6.32%	\$45,472,784.93
275	6.32%	\$48,348,712.47
276	6.32%	\$51,406,528.13
277	6.32%	\$54,657,735.42
278	6.32%	\$58,114,565.41
279	6.32%	\$61,790,022.70
280	6.32%	\$65,697,934.40
281	6.32%	\$69,853,002.07
282	6.32%	\$74,270,857.12
283	6.32%	\$78,968,119.53
284	6.32%	\$83,962,460.43
285	6.32%	\$89,272,668.56
286	6.32%	\$94,918,720.95
287	6.32%	\$100,921,858.08
288	6.32%	\$107,304,663.78
289	6.32%	\$114,091,150.21
290	6.32%	\$121,306,848.15
291	6.32%	\$128,978,903.12
292	6.32%	\$137,136,177.41
293	6.32%	\$145,809,358.74
294	6.32%	\$155,031,075.66
295	6.32%	\$164,836,020.32

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**AEP Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.6

Stock Price =	\$	87.16
Annual Dividend =	\$	2.80
DCF Growth Estimate =		4.86%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.23%
Constant DCF =		8.23%

YEAR	GROWTH RATE	DIVIDEND
296	6.32%	\$175,261,078.98
297	6.32%	\$186,345,470.76
298	6.32%	\$198,130,895.21
299	6.32%	\$210,661,689.15
300	6.32%	\$223,984,993.50
301	6.32%	\$238,150,930.61
302	6.32%	\$253,212,792.79
303	6.32%	\$269,227,242.87
304	6.32%	\$286,254,527.28
305	6.32%	\$304,358,702.77
306	6.32%	\$323,607,877.33
307	6.32%	\$344,074,466.48
308	6.32%	\$365,835,465.62
309	6.32%	\$388,972,739.75
310	6.32%	\$413,573,331.42
311	6.32%	\$439,729,788.19
312	6.32%	\$467,540,510.79
313	6.32%	\$497,110,123.32
314	6.32%	\$528,549,866.80
315	6.32%	\$561,978,017.73
316	6.32%	\$597,520,332.99
317	6.32%	\$635,310,522.95
318	6.32%	\$675,490,754.53
319	6.32%	\$718,212,185.96
320	6.32%	\$763,635,535.51
321	6.32%	\$811,931,686.05
322	6.32%	\$863,282,327.97
323	6.32%	\$917,880,642.65
324	6.32%	\$975,932,029.25
325	6.32%	\$1,037,654,877.41
326	6.32%	\$1,103,281,388.80
327	6.32%	\$1,173,058,450.72
328	6.32%	\$1,247,248,564.84
329	6.32%	\$1,326,130,834.78
330	6.32%	\$1,410,002,016.07
331	6.32%	\$1,499,177,632.53
332	6.32%	\$1,593,993,163.32
333	6.32%	\$1,694,805,304.97
334	6.32%	\$1,801,993,313.31
335	6.32%	\$1,915,960,430.20
336	6.32%	\$2,037,135,400.54
337	6.32%	\$2,165,974,085.23
338	6.32%	\$2,302,961,176.10
339	6.32%	\$2,448,612,019.31
340	6.32%	\$2,603,474,554.12
341	6.32%	\$2,768,131,374.22
342	6.32%	\$2,943,201,919.46
343	6.32%	\$3,129,344,806.18
344	6.32%	\$3,327,260,304.90
345	6.32%	\$3,537,692,974.81
346	6.32%	\$3,761,434,464.75
347	6.32%	\$3,999,326,491.39
348	6.32%	\$4,252,264,005.84
349	6.32%	\$4,521,198,560.37
350	6.32%	\$4,807,141,888.23
351	6.32%	\$5,111,169,709.77
352	6.32%	\$5,434,425,779.28
353	6.32%	\$5,778,126,187.83
354	6.32%	\$6,143,563,938.22

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**AEP Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.6

Stock Price =	\$	87.16
Annual Dividend =	\$	2.80
DCF Growth Estimate =		4.86%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.23%
Constant DCF =		8.23%

YEAR	GROWTH RATE	DIVIDEND
355	6.32%	\$6,532,113,809.23
356	6.32%	\$6,945,237,527.57
357	6.32%	\$7,384,489,266.89
358	6.32%	\$7,851,521,494.59
359	6.32%	\$8,348,091,188.44
360	6.32%	\$8,876,066,446.30
361	6.32%	\$9,437,433,513.93
362	6.32%	\$10,034,304,257.26
363	6.32%	\$10,668,924,107.24
364	6.32%	\$11,343,680,507.17
365	6.32%	\$12,061,111,894.26
366	6.32%	\$12,823,917,249.24
367	6.32%	\$13,634,966,249.97
368	6.32%	\$14,497,310,067.17
369	6.32%	\$15,414,192,842.90
370	6.32%	\$16,389,063,895.12
371	6.32%	\$17,425,590,693.98
372	6.32%	\$18,527,672,658.86
373	6.32%	\$19,699,455,828.06
374	6.32%	\$20,945,348,456.17
375	6.32%	\$22,270,037,597.97
376	6.32%	\$23,678,506,741.14
377	6.32%	\$25,176,054,554.18
378	6.32%	\$26,768,314,820.04
379	6.32%	\$28,461,277,630.40
380	6.32%	\$30,261,311,920.48
381	6.32%	\$32,175,189,428.96
382	6.32%	\$34,210,110,173.35
383	6.32%	\$36,373,729,536.43
384	6.32%	\$38,674,187,065.92
385	6.32%	\$41,120,137,095.41
386	6.32%	\$43,720,781,302.10
387	6.32%	\$46,485,903,323.49
388	6.32%	\$49,425,905,563.51
389	6.32%	\$52,551,848,326.44
390	6.32%	\$55,875,491,425.77
391	6.32%	\$59,409,338,424.75
392	6.32%	\$63,166,683,674.81
393	6.32%	\$67,161,662,329.03
394	6.32%	\$71,409,303,518.60
395	6.32%	\$75,925,586,892.56
396	6.32%	\$80,727,502,733.29
397	6.32%	\$85,833,115,874.04
398	6.32%	\$91,261,633,658.93
399	6.32%	\$97,033,478,201.11
400	6.32%	\$103,170,363,210.82

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**ED Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.7

Stock Price =	\$	81.48
Annual Dividend =	\$	3.01
DCF Growth Estimate =		2.52%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.88%
Constant DCF =		6.30%

YEAR	GROWTH RATE	DIVIDEND
1	2.52%	\$3.09
2	2.52%	\$3.16
3	2.52%	\$3.24
4	2.52%	\$3.32
5	2.52%	\$3.41
6	2.71%	\$3.50
7	2.90%	\$3.60
8	3.09%	\$3.71
9	3.28%	\$3.83
10	3.47%	\$3.97
11	3.66%	\$4.11
12	3.85%	\$4.27
13	4.04%	\$4.44
14	4.23%	\$4.63
15	4.42%	\$4.84
16	4.61%	\$5.06
17	4.80%	\$5.30
18	4.99%	\$5.57
19	5.18%	\$5.86
20	5.37%	\$6.17
21	5.56%	\$6.51
22	5.75%	\$6.89
23	5.94%	\$7.30
24	6.13%	\$7.75
25	6.32%	\$8.23
26	6.32%	\$8.76
27	6.32%	\$9.31
28	6.32%	\$9.90
29	6.32%	\$10.52
30	6.32%	\$11.19
31	6.32%	\$11.90
32	6.32%	\$12.65
33	6.32%	\$13.45
34	6.32%	\$14.30
35	6.32%	\$15.21
36	6.32%	\$16.17
37	6.32%	\$17.19
38	6.32%	\$18.28
39	6.32%	\$19.43
40	6.32%	\$20.66
41	6.32%	\$21.97
42	6.32%	\$23.36
43	6.32%	\$24.83
44	6.32%	\$26.41
45	6.32%	\$28.08
46	6.32%	\$29.85
47	6.32%	\$31.74
48	6.32%	\$33.75
49	6.32%	\$35.88
50	6.32%	\$38.15
51	6.32%	\$40.56
52	6.32%	\$43.13
53	6.32%	\$45.86
54	6.32%	\$48.76
55	6.32%	\$51.84
56	6.32%	\$55.12
57	6.32%	\$58.60
58	6.32%	\$62.31
59	6.32%	\$66.25

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**ED Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.7

Stock Price =	\$	81.48
Annual Dividend =	\$	3.01
DCF Growth Estimate =		2.52%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.88%
Constant DCF =		6.30%

YEAR	GROWTH RATE	DIVIDEND
60	6.32%	\$70.44
61	6.32%	\$74.90
62	6.32%	\$79.63
63	6.32%	\$84.67
64	6.32%	\$90.02
65	6.32%	\$95.72
66	6.32%	\$101.77
67	6.32%	\$108.21
68	6.32%	\$115.05
69	6.32%	\$122.33
70	6.32%	\$130.06
71	6.32%	\$138.29
72	6.32%	\$147.04
73	6.32%	\$156.34
74	6.32%	\$166.22
75	6.32%	\$176.74
76	6.32%	\$187.91
77	6.32%	\$199.80
78	6.32%	\$212.43
79	6.32%	\$225.87
80	6.32%	\$240.15
81	6.32%	\$255.34
82	6.32%	\$271.49
83	6.32%	\$288.66
84	6.32%	\$306.92
85	6.32%	\$326.33
86	6.32%	\$346.97
87	6.32%	\$368.91
88	6.32%	\$392.25
89	6.32%	\$417.05
90	6.32%	\$443.43
91	6.32%	\$471.47
92	6.32%	\$501.29
93	6.32%	\$533.00
94	6.32%	\$566.71
95	6.32%	\$602.55
96	6.32%	\$640.66
97	6.32%	\$681.17
98	6.32%	\$724.26
99	6.32%	\$770.06
100	6.32%	\$818.76
101	6.32%	\$870.55
102	6.32%	\$925.60
103	6.32%	\$984.14
104	6.32%	\$1,046.39
105	6.32%	\$1,112.57
106	6.32%	\$1,182.93
107	6.32%	\$1,257.74
108	6.32%	\$1,337.29
109	6.32%	\$1,421.87
110	6.32%	\$1,511.79
111	6.32%	\$1,607.41
112	6.32%	\$1,709.07
113	6.32%	\$1,817.16
114	6.32%	\$1,932.08
115	6.32%	\$2,054.28
116	6.32%	\$2,184.20
117	6.32%	\$2,322.34
118	6.32%	\$2,469.22



**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**ED Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.7

Stock Price =	\$	81.48
Annual Dividend =	\$	3.01
DCF Growth Estimate =		2.52%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.88%
Constant DCF =		6.30%

YEAR	GROWTH RATE	DIVIDEND
119	6.32%	\$2,625.38
120	6.32%	\$2,791.42
121	6.32%	\$2,967.97
122	6.32%	\$3,155.68
123	6.32%	\$3,355.26
124	6.32%	\$3,567.46
125	6.32%	\$3,793.09
126	6.32%	\$4,032.98
127	6.32%	\$4,288.05
128	6.32%	\$4,559.24
129	6.32%	\$4,847.59
130	6.32%	\$5,154.18
131	6.32%	\$5,480.15
132	6.32%	\$5,826.75
133	6.32%	\$6,195.26
134	6.32%	\$6,587.08
135	6.32%	\$7,003.68
136	6.32%	\$7,446.63
137	6.32%	\$7,917.59
138	6.32%	\$8,418.34
139	6.32%	\$8,950.76
140	6.32%	\$9,516.85
141	6.32%	\$10,118.74
142	6.32%	\$10,758.70
143	6.32%	\$11,439.13
144	6.32%	\$12,162.60
145	6.32%	\$12,931.83
146	6.32%	\$13,749.70
147	6.32%	\$14,619.30
148	6.32%	\$15,543.90
149	6.32%	\$16,526.97
150	6.32%	\$17,572.22
151	6.32%	\$18,683.58
152	6.32%	\$19,865.22
153	6.32%	\$21,121.60
154	6.32%	\$22,457.43
155	6.32%	\$23,877.75
156	6.32%	\$25,387.90
157	6.32%	\$26,993.56
158	6.32%	\$28,700.77
159	6.32%	\$30,515.95
160	6.32%	\$32,445.93
161	6.32%	\$34,497.98
162	6.32%	\$36,679.80
163	6.32%	\$38,999.62
164	6.32%	\$41,466.15
165	6.32%	\$44,088.68
166	6.32%	\$46,877.06
167	6.32%	\$49,841.81
168	6.32%	\$52,994.05
169	6.32%	\$56,345.66
170	6.32%	\$59,909.25
171	6.32%	\$63,698.21
172	6.32%	\$67,726.80
173	6.32%	\$72,010.19
174	6.32%	\$76,564.47
175	6.32%	\$81,406.79
176	6.32%	\$86,555.37
177	6.32%	\$92,029.57

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**ED Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.7

Stock Price =	\$	81.48
Annual Dividend =	\$	3.01
DCF Growth Estimate =		2.52%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.88%
Constant DCF =		6.30%

YEAR	GROWTH RATE	DIVIDEND
178	6.32%	\$97,849.98
179	6.32%	\$104,038.50
180	6.32%	\$110,618.42
181	6.32%	\$117,614.49
182	6.32%	\$125,053.02
183	6.32%	\$132,962.00
184	6.32%	\$141,371.19
185	6.32%	\$150,312.21
186	6.32%	\$159,818.71
187	6.32%	\$169,926.45
188	6.32%	\$180,673.45
189	6.32%	\$192,100.15
190	6.32%	\$204,249.53
191	6.32%	\$217,167.29
192	6.32%	\$230,902.05
193	6.32%	\$245,505.45
194	6.32%	\$261,032.45
195	6.32%	\$277,541.46
196	6.32%	\$295,094.57
197	6.32%	\$313,757.84
198	6.32%	\$333,601.46
199	6.32%	\$354,700.09
200	6.32%	\$377,133.11
201	6.32%	\$400,984.91
202	6.32%	\$426,345.21
203	6.32%	\$453,309.42
204	6.32%	\$481,978.99
205	6.32%	\$512,461.76
206	6.32%	\$544,872.42
207	6.32%	\$579,332.89
208	6.32%	\$615,972.82
209	6.32%	\$654,930.04
210	6.32%	\$696,351.10
211	6.32%	\$740,391.85
212	6.32%	\$787,217.95
213	6.32%	\$837,005.57
214	6.32%	\$889,942.01
215	6.32%	\$946,226.42
216	6.32%	\$1,006,070.54
217	6.32%	\$1,069,699.49
218	6.32%	\$1,137,352.67
219	6.32%	\$1,209,284.57
220	6.32%	\$1,285,765.81
221	6.32%	\$1,367,084.10
222	6.32%	\$1,453,545.37
223	6.32%	\$1,545,474.89
224	6.32%	\$1,643,218.49
225	6.32%	\$1,747,143.89
226	6.32%	\$1,857,642.05
227	6.32%	\$1,975,128.68
228	6.32%	\$2,100,045.74
229	6.32%	\$2,232,863.20
230	6.32%	\$2,374,080.69
231	6.32%	\$2,524,229.49
232	6.32%	\$2,683,874.45
233	6.32%	\$2,853,616.17
234	6.32%	\$3,034,093.20
235	6.32%	\$3,225,984.51
236	6.32%	\$3,430,011.99

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**ED Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.7

Stock Price =	\$	81.48
Annual Dividend =	\$	3.01
DCF Growth Estimate =		2.52%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.88%
Constant DCF =		6.30%

YEAR	GROWTH RATE	DIVIDEND
237	6.32%	\$3,646,943.19
238	6.32%	\$3,877,594.21
239	6.32%	\$4,122,832.77
240	6.32%	\$4,383,581.44
241	6.32%	\$4,660,821.17
242	6.32%	\$4,955,594.93
243	6.32%	\$5,269,011.67
244	6.32%	\$5,602,250.46
245	6.32%	\$5,956,564.94
246	6.32%	\$6,333,288.06
247	6.32%	\$6,733,837.03
248	6.32%	\$7,159,718.74
249	6.32%	\$7,612,535.35
250	6.32%	\$8,093,990.36
251	6.32%	\$8,605,895.01
252	6.32%	\$9,150,175.07
253	6.32%	\$9,728,878.15
254	6.32%	\$10,344,181.32
255	6.32%	\$10,998,399.35
256	6.32%	\$11,693,993.42
257	6.32%	\$12,433,580.36
258	6.32%	\$13,219,942.49
259	6.32%	\$14,056,038.12
260	6.32%	\$14,945,012.64
261	6.32%	\$15,890,210.38
262	6.32%	\$16,895,187.17
263	6.32%	\$17,963,723.75
264	6.32%	\$19,099,839.95
265	6.32%	\$20,307,809.86
266	6.32%	\$21,592,177.86
267	6.32%	\$22,957,775.74
268	6.32%	\$24,409,740.90
269	6.32%	\$25,953,535.64
270	6.32%	\$27,594,967.72
271	6.32%	\$29,340,212.21
272	6.32%	\$31,195,834.75
273	6.32%	\$33,168,816.18
274	6.32%	\$35,266,578.87
275	6.32%	\$37,497,014.63
276	6.32%	\$39,868,514.35
277	6.32%	\$42,389,999.65
278	6.32%	\$45,070,956.34
279	6.32%	\$47,921,470.22
280	6.32%	\$50,952,264.93
281	6.32%	\$54,174,742.33
282	6.32%	\$57,601,025.41
283	6.32%	\$61,244,003.85
284	6.32%	\$65,117,382.57
285	6.32%	\$69,235,733.23
286	6.32%	\$73,614,549.09
287	6.32%	\$78,270,303.28
288	6.32%	\$83,220,510.77
289	6.32%	\$88,483,794.28
290	6.32%	\$94,079,954.29
291	6.32%	\$100,030,043.60
292	6.32%	\$106,356,446.47
293	6.32%	\$113,082,962.87
294	6.32%	\$120,234,897.98
295	6.32%	\$127,839,157.42

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**ED Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.7

Stock Price =	\$	81.48
Annual Dividend =	\$	3.01
DCF Growth Estimate =		2.52%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.88%
Constant DCF =		6.30%

YEAR	GROWTH RATE	DIVIDEND
296	6.32%	\$135,924,348.47
297	6.32%	\$144,520,887.64
298	6.32%	\$153,661,115.17
299	6.32%	\$163,379,416.65
300	6.32%	\$173,712,352.37
301	6.32%	\$184,698,794.89
302	6.32%	\$196,380,075.28
303	6.32%	\$208,800,138.56
304	6.32%	\$222,005,709.09
305	6.32%	\$236,046,466.30
306	6.32%	\$250,975,231.58
307	6.32%	\$266,848,167.04
308	6.32%	\$283,724,986.74
309	6.32%	\$301,669,181.36
310	6.32%	\$320,748,257.07
311	6.32%	\$341,033,989.45
312	6.32%	\$362,602,693.53
313	6.32%	\$385,535,510.91
314	6.32%	\$409,918,714.94
315	6.32%	\$435,844,035.40
316	6.32%	\$463,409,003.46
317	6.32%	\$492,717,318.68
318	6.32%	\$523,879,239.12
319	6.32%	\$557,011,996.07
320	6.32%	\$592,240,235.15
321	6.32%	\$629,696,485.18
322	6.32%	\$669,521,656.79
323	6.32%	\$711,865,572.47
324	6.32%	\$756,887,530.27
325	6.32%	\$804,756,903.03
326	6.32%	\$855,653,775.60
327	6.32%	\$909,769,622.28
328	6.32%	\$967,308,027.17
329	6.32%	\$1,028,485,450.08
330	6.32%	\$1,093,532,040.78
331	6.32%	\$1,162,692,504.91
332	6.32%	\$1,236,227,024.51
333	6.32%	\$1,314,412,236.83
334	6.32%	\$1,397,542,275.06
335	6.32%	\$1,485,929,874.86
336	6.32%	\$1,579,907,550.85
337	6.32%	\$1,679,828,847.56
338	6.32%	\$1,786,069,669.43
339	6.32%	\$1,899,029,695.02
340	6.32%	\$2,019,133,880.55
341	6.32%	\$2,146,834,058.61
342	6.32%	\$2,282,610,637.96
343	6.32%	\$2,426,974,410.82
344	6.32%	\$2,580,468,474.49
345	6.32%	\$2,743,670,274.45
346	6.32%	\$2,917,193,776.76
347	6.32%	\$3,101,691,777.77
348	6.32%	\$3,297,858,359.95
349	6.32%	\$3,506,431,503.04
350	6.32%	\$3,728,195,860.33
351	6.32%	\$3,963,985,710.52
352	6.32%	\$4,214,688,096.30
353	6.32%	\$4,481,246,161.40
354	6.32%	\$4,764,662,698.69

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**ED Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.7

Stock Price =	\$	81.48
Annual Dividend =	\$	3.01
DCF Growth Estimate =		2.52%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.88%
Constant DCF =		6.30%

YEAR	GROWTH RATE	DIVIDEND
355	6.32%	\$5,066,003,922.70
356	6.32%	\$5,386,403,480.76
357	6.32%	\$5,727,066,717.72
358	6.32%	\$6,089,275,210.51
359	6.32%	\$6,474,391,589.44
360	6.32%	\$6,883,864,664.39
361	6.32%	\$7,319,234,875.28
362	6.32%	\$7,782,140,087.19
363	6.32%	\$8,274,321,752.01
364	6.32%	\$8,797,631,459.82
365	6.32%	\$9,354,037,904.56
366	6.32%	\$9,945,634,290.28
367	6.32%	\$10,574,646,205.75
368	6.32%	\$11,243,439,997.19
369	6.32%	\$11,954,531,670.45
370	6.32%	\$12,710,596,356.24
371	6.32%	\$13,514,478,373.96
372	6.32%	\$14,369,201,932.11
373	6.32%	\$15,277,982,505.30
374	6.32%	\$16,244,238,930.96
375	6.32%	\$17,271,606,270.95
376	6.32%	\$18,363,949,486.74
377	6.32%	\$19,525,377,979.40
378	6.32%	\$20,760,261,049.16
379	6.32%	\$22,073,244,332.79
380	6.32%	\$23,469,267,280.47
381	6.32%	\$24,953,581,738.04
382	6.32%	\$26,531,771,704.50
383	6.32%	\$28,209,774,338.98
384	6.32%	\$29,993,902,296.44
385	6.32%	\$31,890,867,475.87
386	6.32%	\$33,907,806,270.47
387	6.32%	\$36,052,306,414.87
388	6.32%	\$38,332,435,530.15
389	6.32%	\$40,756,771,474.32
390	6.32%	\$43,334,434,612.26
391	6.32%	\$46,075,122,126.58
392	6.32%	\$48,989,144,498.46
393	6.32%	\$52,087,464,295.76
394	6.32%	\$55,381,737,414.24
395	6.32%	\$58,884,356,927.12
396	6.32%	\$62,608,499,707.86
397	6.32%	\$66,568,176,001.66
398	6.32%	\$70,778,282,132.06
399	6.32%	\$75,254,656,541.00
400	6.32%	\$80,014,139,373.10

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**WEC Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.8

Stock Price =	\$	90.98
Annual Dividend =	\$	2.49
DCF Growth Estimate =		5.81%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.07%
Constant DCF =		8.71%

YEAR	GROWTH RATE	DIVIDEND
1	5.81%	\$2.63
2	5.81%	\$2.79
3	5.81%	\$2.95
4	5.81%	\$3.12
5	5.81%	\$3.30
6	5.84%	\$3.49
7	5.86%	\$3.70
8	5.89%	\$3.91
9	5.92%	\$4.15
10	5.94%	\$4.39
11	5.97%	\$4.65
12	5.99%	\$4.93
13	6.02%	\$5.23
14	6.04%	\$5.55
15	6.07%	\$5.88
16	6.09%	\$6.24
17	6.12%	\$6.62
18	6.15%	\$7.03
19	6.17%	\$7.46
20	6.20%	\$7.93
21	6.22%	\$8.42
22	6.25%	\$8.95
23	6.27%	\$9.51
24	6.30%	\$10.11
25	6.32%	\$10.75
26	6.32%	\$11.43
27	6.32%	\$12.15
28	6.32%	\$12.92
29	6.32%	\$13.73
30	6.32%	\$14.60
31	6.32%	\$15.52
32	6.32%	\$16.51
33	6.32%	\$17.55
34	6.32%	\$18.66
35	6.32%	\$19.84
36	6.32%	\$21.10
37	6.32%	\$22.43
38	6.32%	\$23.85
39	6.32%	\$25.36
40	6.32%	\$26.96
41	6.32%	\$28.67
42	6.32%	\$30.48
43	6.32%	\$32.41
44	6.32%	\$34.46
45	6.32%	\$36.63
46	6.32%	\$38.95
47	6.32%	\$41.42
48	6.32%	\$44.03
49	6.32%	\$46.82
50	6.32%	\$49.78
51	6.32%	\$52.93
52	6.32%	\$56.28
53	6.32%	\$59.84
54	6.32%	\$63.62
55	6.32%	\$67.64
56	6.32%	\$71.92
57	6.32%	\$76.47
58	6.32%	\$81.31
59	6.32%	\$86.45

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**WEC Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.8

Stock Price =	\$	90.98
Annual Dividend =	\$	2.49
DCF Growth Estimate =		5.81%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.07%
Constant DCF =		8.71%

YEAR	GROWTH RATE	DIVIDEND
60	6.32%	\$91.92
61	6.32%	\$97.73
62	6.32%	\$103.91
63	6.32%	\$110.48
64	6.32%	\$117.47
65	6.32%	\$124.90
66	6.32%	\$132.80
67	6.32%	\$141.20
68	6.32%	\$150.13
69	6.32%	\$159.62
70	6.32%	\$169.72
71	6.32%	\$180.45
72	6.32%	\$191.86
73	6.32%	\$204.00
74	6.32%	\$216.90
75	6.32%	\$230.62
76	6.32%	\$245.20
77	6.32%	\$260.71
78	6.32%	\$277.20
79	6.32%	\$294.73
80	6.32%	\$313.37
81	6.32%	\$333.19
82	6.32%	\$354.27
83	6.32%	\$376.67
84	6.32%	\$400.49
85	6.32%	\$425.82
86	6.32%	\$452.75
87	6.32%	\$481.39
88	6.32%	\$511.83
89	6.32%	\$544.20
90	6.32%	\$578.62
91	6.32%	\$615.22
92	6.32%	\$654.13
93	6.32%	\$695.50
94	6.32%	\$739.48
95	6.32%	\$786.25
96	6.32%	\$835.98
97	6.32%	\$888.85
98	6.32%	\$945.07
99	6.32%	\$1,004.84
100	6.32%	\$1,068.39
101	6.32%	\$1,135.96
102	6.32%	\$1,207.80
103	6.32%	\$1,284.19
104	6.32%	\$1,365.41
105	6.32%	\$1,451.76
106	6.32%	\$1,543.58
107	6.32%	\$1,641.20
108	6.32%	\$1,745.00
109	6.32%	\$1,855.37
110	6.32%	\$1,972.71
111	6.32%	\$2,097.47
112	6.32%	\$2,230.13
113	6.32%	\$2,371.17
114	6.32%	\$2,521.14
115	6.32%	\$2,680.58
116	6.32%	\$2,850.12
117	6.32%	\$3,030.37
118	6.32%	\$3,222.03

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**WEC Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.8

Stock Price =	\$	90.98
Annual Dividend =	\$	2.49
DCF Growth Estimate =		5.81%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.07%
Constant DCF =		8.71%

YEAR	GROWTH RATE	DIVIDEND
119	6.32%	\$3,425.81
120	6.32%	\$3,642.47
121	6.32%	\$3,872.84
122	6.32%	\$4,117.78
123	6.32%	\$4,378.21
124	6.32%	\$4,655.11
125	6.32%	\$4,949.52
126	6.32%	\$5,262.55
127	6.32%	\$5,595.38
128	6.32%	\$5,949.26
129	6.32%	\$6,325.53
130	6.32%	\$6,725.58
131	6.32%	\$7,150.94
132	6.32%	\$7,603.20
133	6.32%	\$8,084.07
134	6.32%	\$8,595.35
135	6.32%	\$9,138.96
136	6.32%	\$9,716.95
137	6.32%	\$10,331.50
138	6.32%	\$10,984.92
139	6.32%	\$11,679.66
140	6.32%	\$12,418.34
141	6.32%	\$13,203.74
142	6.32%	\$14,038.81
143	6.32%	\$14,926.69
144	6.32%	\$15,870.73
145	6.32%	\$16,874.48
146	6.32%	\$17,941.71
147	6.32%	\$19,076.43
148	6.32%	\$20,282.92
149	6.32%	\$21,565.71
150	6.32%	\$22,929.64
151	6.32%	\$24,379.82
152	6.32%	\$25,921.72
153	6.32%	\$27,561.15
154	6.32%	\$29,304.25
155	6.32%	\$31,157.60
156	6.32%	\$33,128.16
157	6.32%	\$35,223.35
158	6.32%	\$37,451.06
159	6.32%	\$39,819.65
160	6.32%	\$42,338.04
161	6.32%	\$45,015.71
162	6.32%	\$47,862.73
163	6.32%	\$50,889.81
164	6.32%	\$54,108.34
165	6.32%	\$57,530.42
166	6.32%	\$61,168.94
167	6.32%	\$65,037.57
168	6.32%	\$69,150.87
169	6.32%	\$73,524.32
170	6.32%	\$78,174.37
171	6.32%	\$83,118.51
172	6.32%	\$88,375.34
173	6.32%	\$93,964.64
174	6.32%	\$99,907.44
175	6.32%	\$106,226.09
176	6.32%	\$112,944.36
177	6.32%	\$120,087.53



**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**WEC Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.8

Stock Price =	\$	90.98
Annual Dividend =	\$	2.49
DCF Growth Estimate =		5.81%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.07%
Constant DCF =		8.71%

YEAR	GROWTH RATE	DIVIDEND
178	6.32%	\$127,682.47
179	6.32%	\$135,757.75
180	6.32%	\$144,343.75
181	6.32%	\$153,472.78
182	6.32%	\$163,179.17
183	6.32%	\$173,499.44
184	6.32%	\$184,472.41
185	6.32%	\$196,139.38
186	6.32%	\$208,544.22
187	6.32%	\$221,733.60
188	6.32%	\$235,757.15
189	6.32%	\$250,667.62
190	6.32%	\$266,521.10
191	6.32%	\$283,377.23
192	6.32%	\$301,299.43
193	6.32%	\$320,355.12
194	6.32%	\$340,615.99
195	6.32%	\$362,158.26
196	6.32%	\$385,062.97
197	6.32%	\$409,416.29
198	6.32%	\$435,309.83
199	6.32%	\$462,841.01
200	6.32%	\$492,113.40
201	6.32%	\$523,237.13
202	6.32%	\$556,329.28
203	6.32%	\$591,514.34
204	6.32%	\$628,924.68
205	6.32%	\$668,701.04
206	6.32%	\$710,993.05
207	6.32%	\$755,959.83
208	6.32%	\$803,770.53
209	6.32%	\$854,605.02
210	6.32%	\$908,654.54
211	6.32%	\$966,122.42
212	6.32%	\$1,027,224.86
213	6.32%	\$1,092,191.72
214	6.32%	\$1,161,267.42
215	6.32%	\$1,234,711.81
216	6.32%	\$1,312,801.19
217	6.32%	\$1,395,829.33
218	6.32%	\$1,484,108.60
219	6.32%	\$1,577,971.09
220	6.32%	\$1,677,769.91
221	6.32%	\$1,783,880.52
222	6.32%	\$1,896,702.09
223	6.32%	\$2,016,659.07
224	6.32%	\$2,144,202.73
225	6.32%	\$2,279,812.89
226	6.32%	\$2,423,999.72
227	6.32%	\$2,577,305.65
228	6.32%	\$2,740,307.41
229	6.32%	\$2,913,618.23
230	6.32%	\$3,097,890.10
231	6.32%	\$3,293,816.24
232	6.32%	\$3,502,133.74
233	6.32%	\$3,723,626.28
234	6.32%	\$3,959,127.13
235	6.32%	\$4,209,522.24
236	6.32%	\$4,475,753.59

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**WEC Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.8

Stock Price =	\$	90.98
Annual Dividend =	\$	2.49
DCF Growth Estimate =		5.81%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.07%
Constant DCF =		8.71%

YEAR	GROWTH RATE	DIVIDEND
237	6.32%	\$4,758,822.75
238	6.32%	\$5,059,794.62
239	6.32%	\$5,379,801.47
240	6.32%	\$5,720,047.16
241	6.32%	\$6,081,811.71
242	6.32%	\$6,466,456.06
243	6.32%	\$6,875,427.25
244	6.32%	\$7,310,263.83
245	6.32%	\$7,772,601.67
246	6.32%	\$8,264,180.08
247	6.32%	\$8,786,848.38
248	6.32%	\$9,342,572.84
249	6.32%	\$9,933,444.12
250	6.32%	\$10,561,685.07
251	6.32%	\$11,229,659.13
252	6.32%	\$11,939,879.24
253	6.32%	\$12,695,017.23
254	6.32%	\$13,497,913.94
255	6.32%	\$14,351,589.88
256	6.32%	\$15,259,256.58
257	6.32%	\$16,224,328.69
258	6.32%	\$17,250,436.80
259	6.32%	\$18,341,441.16
260	6.32%	\$19,501,446.11
261	6.32%	\$20,734,815.61
262	6.32%	\$22,046,189.59
263	6.32%	\$23,440,501.46
264	6.32%	\$24,922,996.62
265	6.32%	\$26,499,252.23
266	6.32%	\$28,175,198.17
267	6.32%	\$29,957,139.36
268	6.32%	\$31,851,779.47
269	6.32%	\$33,866,246.14
270	6.32%	\$36,008,117.81
271	6.32%	\$38,285,452.22
272	6.32%	\$40,706,816.70
273	6.32%	\$43,281,320.45
274	6.32%	\$46,018,648.76
275	6.32%	\$48,929,099.47
276	6.32%	\$52,023,621.72
277	6.32%	\$55,313,857.11
278	6.32%	\$58,812,183.53
279	6.32%	\$62,531,761.70
280	6.32%	\$66,486,584.70
281	6.32%	\$70,691,530.58
282	6.32%	\$75,162,418.39
283	6.32%	\$79,916,067.62
284	6.32%	\$84,970,361.52
285	6.32%	\$90,344,314.38
286	6.32%	\$96,058,143.04
287	6.32%	\$102,133,342.95
288	6.32%	\$108,592,769.05
289	6.32%	\$115,460,721.73
290	6.32%	\$122,763,038.26
291	6.32%	\$130,527,190.01
292	6.32%	\$138,782,385.75
293	6.32%	\$147,559,681.57
294	6.32%	\$156,892,097.71
295	6.32%	\$166,814,742.76

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**WEC Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.8

Stock Price =	\$	90.98
Annual Dividend =	\$	2.49
DCF Growth Estimate =		5.81%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.07%
Constant DCF =		8.71%

YEAR	GROWTH RATE	DIVIDEND
296	6.32%	\$177,364,945.78
297	6.32%	\$188,582,396.67
298	6.32%	\$200,509,295.56
299	6.32%	\$213,190,511.50
300	6.32%	\$226,673,751.29
301	6.32%	\$241,009,738.95
302	6.32%	\$256,252,406.55
303	6.32%	\$272,459,097.08
304	6.32%	\$289,690,780.20
305	6.32%	\$308,012,281.60
306	6.32%	\$327,492,526.86
307	6.32%	\$348,204,800.77
308	6.32%	\$370,227,023.02
309	6.32%	\$393,642,041.32
310	6.32%	\$418,537,943.10
311	6.32%	\$445,008,386.87
312	6.32%	\$473,152,954.59
313	6.32%	\$503,077,526.28
314	6.32%	\$534,894,678.33
315	6.32%	\$568,724,107.04
316	6.32%	\$604,693,078.90
317	6.32%	\$642,936,909.38
318	6.32%	\$683,599,471.98
319	6.32%	\$726,833,739.47
320	6.32%	\$772,802,359.40
321	6.32%	\$821,678,265.97
322	6.32%	\$873,645,330.61
323	6.32%	\$928,899,053.68
324	6.32%	\$987,647,299.99
325	6.32%	\$1,050,111,080.77
326	6.32%	\$1,116,525,385.09
327	6.32%	\$1,187,140,063.91
328	6.32%	\$1,262,220,770.05
329	6.32%	\$1,342,049,957.53
330	6.32%	\$1,426,927,944.17
331	6.32%	\$1,517,174,041.42
332	6.32%	\$1,613,127,755.59
333	6.32%	\$1,715,150,065.06
334	6.32%	\$1,823,624,778.31
335	6.32%	\$1,938,959,977.80
336	6.32%	\$2,061,589,555.17
337	6.32%	\$2,191,974,843.54
338	6.32%	\$2,330,606,353.09
339	6.32%	\$2,478,005,616.28
340	6.32%	\$2,634,727,149.94
341	6.32%	\$2,801,360,541.33
342	6.32%	\$2,978,532,666.17
343	6.32%	\$3,166,910,046.93
344	6.32%	\$3,367,201,360.35
345	6.32%	\$3,580,160,103.41
346	6.32%	\$3,806,587,428.07
347	6.32%	\$4,047,335,155.13
348	6.32%	\$4,303,308,978.83
349	6.32%	\$4,575,471,874.09
350	6.32%	\$4,864,847,719.19
351	6.32%	\$5,172,525,147.59
352	6.32%	\$5,499,661,643.46
353	6.32%	\$5,847,487,896.05
354	6.32%	\$6,217,312,429.59

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**WEC Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.8

Stock Price =	\$	90.98
Annual Dividend =	\$	2.49
DCF Growth Estimate =		5.81%
GNP Growth Rate =		6.32%
Non-Constant DCF =		9.07%
Constant DCF =		8.71%

YEAR	GROWTH RATE	DIVIDEND
355	6.32%	\$6,610,526,525.98
356	6.32%	\$7,028,609,458.75
357	6.32%	\$7,473,134,058.16
358	6.32%	\$7,945,772,628.14
359	6.32%	\$8,448,303,237.54
360	6.32%	\$8,982,616,409.21
361	6.32%	\$9,550,722,232.18
362	6.32%	\$10,154,757,923.63
363	6.32%	\$10,796,995,869.07
364	6.32%	\$11,479,852,171.11
365	6.32%	\$12,205,895,738.85
366	6.32%	\$12,977,857,952.08
367	6.32%	\$13,798,642,936.82
368	6.32%	\$14,671,338,490.59
369	6.32%	\$15,599,227,698.78
370	6.32%	\$16,585,801,285.57
371	6.32%	\$17,634,770,746.12
372	6.32%	\$18,750,082,309.18
373	6.32%	\$19,935,931,782.86
374	6.32%	\$21,196,780,339.26
375	6.32%	\$22,537,371,297.45
376	6.32%	\$23,962,747,967.83
377	6.32%	\$25,478,272,625.11
378	6.32%	\$27,089,646,681.21
379	6.32%	\$28,802,932,134.01
380	6.32%	\$30,624,574,372.61
381	6.32%	\$32,561,426,424.92
382	6.32%	\$34,620,774,738.78
383	6.32%	\$36,810,366,593.66
384	6.32%	\$39,138,439,245.89
385	6.32%	\$41,613,750,917.33
386	6.32%	\$44,245,613,743.82
387	6.32%	\$47,043,928,807.49
388	6.32%	\$50,019,223,384.67
389	6.32%	\$53,182,690,549.58
390	6.32%	\$56,546,231,282.75
391	6.32%	\$60,122,499,242.51
392	6.32%	\$63,924,948,368.20
393	6.32%	\$67,967,883,493.89
394	6.32%	\$72,266,514,163.32
395	6.32%	\$76,837,011,848.19
396	6.32%	\$81,696,570,785.42
397	6.32%	\$86,863,472,661.89
398	6.32%	\$92,357,155,390.30
399	6.32%	\$98,198,286,234.64
400	6.32%	\$104,408,839,560.62

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**XEL Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.9

Stock Price =	\$	63.27
Annual Dividend =	\$	1.67
DCF Growth Estimate =		5.56%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.90%
Constant DCF =		8.34%

YEAR	GROWTH RATE	DIVIDEND
1	5.56%	\$1.76
2	5.56%	\$1.86
3	5.56%	\$1.96
4	5.56%	\$2.07
5	5.56%	\$2.19
6	5.60%	\$2.31
7	5.63%	\$2.44
8	5.67%	\$2.58
9	5.71%	\$2.73
10	5.75%	\$2.88
11	5.79%	\$3.05
12	5.83%	\$3.23
13	5.86%	\$3.42
14	5.90%	\$3.62
15	5.94%	\$3.83
16	5.98%	\$4.06
17	6.02%	\$4.31
18	6.06%	\$4.57
19	6.09%	\$4.85
20	6.13%	\$5.15
21	6.17%	\$5.46
22	6.21%	\$5.80
23	6.25%	\$6.16
24	6.29%	\$6.55
25	6.32%	\$6.97
26	6.32%	\$7.41
27	6.32%	\$7.88
28	6.32%	\$8.37
29	6.32%	\$8.90
30	6.32%	\$9.47
31	6.32%	\$10.07
32	6.32%	\$10.70
33	6.32%	\$11.38
34	6.32%	\$12.10
35	6.32%	\$12.86
36	6.32%	\$13.68
37	6.32%	\$14.54
38	6.32%	\$15.46
39	6.32%	\$16.44
40	6.32%	\$17.48
41	6.32%	\$18.58
42	6.32%	\$19.76
43	6.32%	\$21.01
44	6.32%	\$22.34
45	6.32%	\$23.75
46	6.32%	\$25.25
47	6.32%	\$26.85
48	6.32%	\$28.55
49	6.32%	\$30.35
50	6.32%	\$32.27
51	6.32%	\$34.31
52	6.32%	\$36.49
53	6.32%	\$38.79
54	6.32%	\$41.25
55	6.32%	\$43.85
56	6.32%	\$46.63
57	6.32%	\$49.58
58	6.32%	\$52.71
59	6.32%	\$56.05

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**XEL Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.9

Stock Price =	\$	63.27
Annual Dividend =	\$	1.67
DCF Growth Estimate =		5.56%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.90%
Constant DCF =		8.34%

YEAR	GROWTH RATE	DIVIDEND
60	6.32%	\$59.59
61	6.32%	\$63.36
62	6.32%	\$67.37
63	6.32%	\$71.63
64	6.32%	\$76.16
65	6.32%	\$80.97
66	6.32%	\$86.10
67	6.32%	\$91.54
68	6.32%	\$97.33
69	6.32%	\$103.49
70	6.32%	\$110.03
71	6.32%	\$116.99
72	6.32%	\$124.39
73	6.32%	\$132.26
74	6.32%	\$140.62
75	6.32%	\$149.51
76	6.32%	\$158.97
77	6.32%	\$169.02
78	6.32%	\$179.71
79	6.32%	\$191.08
80	6.32%	\$203.17
81	6.32%	\$216.02
82	6.32%	\$229.68
83	6.32%	\$244.20
84	6.32%	\$259.65
85	6.32%	\$276.07
86	6.32%	\$293.53
87	6.32%	\$312.09
88	6.32%	\$331.83
89	6.32%	\$352.82
90	6.32%	\$375.13
91	6.32%	\$398.86
92	6.32%	\$424.08
93	6.32%	\$450.90
94	6.32%	\$479.42
95	6.32%	\$509.74
96	6.32%	\$541.98
97	6.32%	\$576.26
98	6.32%	\$612.70
99	6.32%	\$651.46
100	6.32%	\$692.66
101	6.32%	\$736.46
102	6.32%	\$783.04
103	6.32%	\$832.56
104	6.32%	\$885.22
105	6.32%	\$941.21
106	6.32%	\$1,000.73
107	6.32%	\$1,064.02
108	6.32%	\$1,131.32
109	6.32%	\$1,202.87
110	6.32%	\$1,278.94
111	6.32%	\$1,359.83
112	6.32%	\$1,445.83
113	6.32%	\$1,537.28
114	6.32%	\$1,634.50
115	6.32%	\$1,737.87
116	6.32%	\$1,847.79
117	6.32%	\$1,964.65
118	6.32%	\$2,088.90

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**XEL Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.9

Stock Price =	\$	63.27
Annual Dividend =	\$	1.67
DCF Growth Estimate =		5.56%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.90%
Constant DCF =		8.34%

YEAR	GROWTH RATE	DIVIDEND
119	6.32%	\$2,221.02
120	6.32%	\$2,361.48
121	6.32%	\$2,510.84
122	6.32%	\$2,669.64
123	6.32%	\$2,838.48
124	6.32%	\$3,018.00
125	6.32%	\$3,208.87
126	6.32%	\$3,411.81
127	6.32%	\$3,627.59
128	6.32%	\$3,857.02
129	6.32%	\$4,100.96
130	6.32%	\$4,360.32
131	6.32%	\$4,636.09
132	6.32%	\$4,929.30
133	6.32%	\$5,241.06
134	6.32%	\$5,572.53
135	6.32%	\$5,924.96
136	6.32%	\$6,299.69
137	6.32%	\$6,698.11
138	6.32%	\$7,121.73
139	6.32%	\$7,572.15
140	6.32%	\$8,051.05
141	6.32%	\$8,560.24
142	6.32%	\$9,101.63
143	6.32%	\$9,677.26
144	6.32%	\$10,289.30
145	6.32%	\$10,940.05
146	6.32%	\$11,631.95
147	6.32%	\$12,367.61
148	6.32%	\$13,149.80
149	6.32%	\$13,981.46
150	6.32%	\$14,865.72
151	6.32%	\$15,805.90
152	6.32%	\$16,805.55
153	6.32%	\$17,868.42
154	6.32%	\$18,998.50
155	6.32%	\$20,200.07
156	6.32%	\$21,477.62
157	6.32%	\$22,835.97
158	6.32%	\$24,280.23
159	6.32%	\$25,815.84
160	6.32%	\$27,448.56
161	6.32%	\$29,184.55
162	6.32%	\$31,030.32
163	6.32%	\$32,992.84
164	6.32%	\$35,079.47
165	6.32%	\$37,298.07
166	6.32%	\$39,656.99
167	6.32%	\$42,165.10
168	6.32%	\$44,831.83
169	6.32%	\$47,667.22
170	6.32%	\$50,681.94
171	6.32%	\$53,887.32
172	6.32%	\$57,295.42
173	6.32%	\$60,919.07
174	6.32%	\$64,771.90
175	6.32%	\$68,868.40
176	6.32%	\$73,223.98
177	6.32%	\$77,855.04

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**XEL Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.9

Stock Price =	\$	63.27
Annual Dividend =	\$	1.67
DCF Growth Estimate =		5.56%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.90%
Constant DCF =		8.34%

YEAR	GROWTH RATE	DIVIDEND
178	6.32%	\$82,778.98
179	6.32%	\$88,014.34
180	6.32%	\$93,580.81
181	6.32%	\$99,499.33
182	6.32%	\$105,792.17
183	6.32%	\$112,483.00
184	6.32%	\$119,596.99
185	6.32%	\$127,160.90
186	6.32%	\$135,203.19
187	6.32%	\$143,754.12
188	6.32%	\$152,845.86
189	6.32%	\$162,512.60
190	6.32%	\$172,790.71
191	6.32%	\$183,718.87
192	6.32%	\$195,338.17
193	6.32%	\$207,692.34
194	6.32%	\$220,827.85
195	6.32%	\$234,794.11
196	6.32%	\$249,643.67
197	6.32%	\$265,432.39
198	6.32%	\$282,219.67
199	6.32%	\$300,068.66
200	6.32%	\$319,046.51
201	6.32%	\$339,224.62
202	6.32%	\$360,678.89
203	6.32%	\$383,490.03
204	6.32%	\$407,743.87
205	6.32%	\$433,531.64
206	6.32%	\$460,950.36
207	6.32%	\$490,103.18
208	6.32%	\$521,099.77
209	6.32%	\$554,056.74
210	6.32%	\$589,098.07
211	6.32%	\$626,355.60
212	6.32%	\$665,969.47
213	6.32%	\$708,088.73
214	6.32%	\$752,871.82
215	6.32%	\$800,487.22
216	6.32%	\$851,114.06
217	6.32%	\$904,942.79
218	6.32%	\$962,175.92
219	6.32%	\$1,023,028.77
220	6.32%	\$1,087,730.25
221	6.32%	\$1,156,523.78
222	6.32%	\$1,229,668.16
223	6.32%	\$1,307,438.55
224	6.32%	\$1,390,127.54
225	6.32%	\$1,478,046.20
226	6.32%	\$1,571,525.27
227	6.32%	\$1,670,916.43
228	6.32%	\$1,776,593.58
229	6.32%	\$1,888,954.29
230	6.32%	\$2,008,421.26
231	6.32%	\$2,135,443.92
232	6.32%	\$2,270,500.13
233	6.32%	\$2,414,097.97
234	6.32%	\$2,566,777.66
235	6.32%	\$2,729,113.59
236	6.32%	\$2,901,716.45



**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**XEL Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.9

Stock Price =	\$	63.27
Annual Dividend =	\$	1.67
DCF Growth Estimate =		5.56%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.90%
Constant DCF =		8.34%

YEAR	GROWTH RATE	DIVIDEND
237	6.32%	\$3,085,235.59
238	6.32%	\$3,280,361.40
239	6.32%	\$3,487,827.95
240	6.32%	\$3,708,415.72
241	6.32%	\$3,942,954.58
242	6.32%	\$4,192,326.85
243	6.32%	\$4,457,470.68
244	6.32%	\$4,739,383.53
245	6.32%	\$5,039,125.97
246	6.32%	\$5,357,825.64
247	6.32%	\$5,696,681.47
248	6.32%	\$6,056,968.24
249	6.32%	\$6,440,041.37
250	6.32%	\$6,847,341.96
251	6.32%	\$7,280,402.29
252	6.32%	\$7,740,851.54
253	6.32%	\$8,230,421.91
254	6.32%	\$8,750,955.17
255	6.32%	\$9,304,409.57
256	6.32%	\$9,892,867.21
257	6.32%	\$10,518,541.87
258	6.32%	\$11,183,787.34
259	6.32%	\$11,891,106.28
260	6.32%	\$12,643,159.62
261	6.32%	\$13,442,776.60
262	6.32%	\$14,292,965.38
263	6.32%	\$15,196,924.37
264	6.32%	\$16,158,054.27
265	6.32%	\$17,179,970.86
266	6.32%	\$18,266,518.59
267	6.32%	\$19,421,785.07
268	6.32%	\$20,650,116.40
269	6.32%	\$21,956,133.58
270	6.32%	\$23,344,749.86
271	6.32%	\$24,821,189.21
272	6.32%	\$26,391,006.00
273	6.32%	\$28,060,105.91
274	6.32%	\$29,834,768.08
275	6.32%	\$31,721,668.81
276	6.32%	\$33,727,906.63
277	6.32%	\$35,861,029.02
278	6.32%	\$38,129,060.79
279	6.32%	\$40,540,534.29
280	6.32%	\$43,104,521.50
281	6.32%	\$45,830,668.16
282	6.32%	\$48,729,230.03
283	6.32%	\$51,811,111.53
284	6.32%	\$55,087,906.71
285	6.32%	\$58,571,942.89
286	6.32%	\$62,276,327.04
287	6.32%	\$66,214,995.06
288	6.32%	\$70,402,764.26
289	6.32%	\$74,855,389.03
290	6.32%	\$79,589,620.17
291	6.32%	\$84,623,267.90
292	6.32%	\$89,975,268.82
293	6.32%	\$95,665,757.18
294	6.32%	\$101,716,140.64
295	6.32%	\$108,149,180.76

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**XEL Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.9

Stock Price =	\$	63.27
Annual Dividend =	\$	1.67
DCF Growth Estimate =		5.56%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.90%
Constant DCF =		8.34%

YEAR	GROWTH RATE	DIVIDEND
296	6.32%	\$114,989,078.69
297	6.32%	\$122,261,566.14
298	6.32%	\$129,994,002.27
299	6.32%	\$138,215,476.54
300	6.32%	\$146,956,918.17
301	6.32%	\$156,251,212.52
302	6.32%	\$166,133,324.77
303	6.32%	\$176,640,431.49
304	6.32%	\$187,812,060.46
305	6.32%	\$199,690,239.41
306	6.32%	\$212,319,654.12
307	6.32%	\$225,747,816.51
308	6.32%	\$240,025,243.40
309	6.32%	\$255,205,646.55
310	6.32%	\$271,346,134.72
311	6.32%	\$288,507,428.51
312	6.32%	\$306,754,088.80
313	6.32%	\$326,154,759.62
314	6.32%	\$346,782,426.40
315	6.32%	\$368,714,690.54
316	6.32%	\$392,034,061.33
317	6.32%	\$416,828,266.37
318	6.32%	\$443,190,581.59
319	6.32%	\$471,220,182.17
320	6.32%	\$501,022,515.61
321	6.32%	\$532,709,698.45
322	6.32%	\$566,400,938.05
323	6.32%	\$602,222,981.02
324	6.32%	\$640,310,590.10
325	6.32%	\$680,807,051.06
326	6.32%	\$723,864,711.81
327	6.32%	\$769,645,555.51
328	6.32%	\$818,321,809.93
329	6.32%	\$870,076,595.41
330	6.32%	\$925,104,613.73
331	6.32%	\$983,612,880.58
332	6.32%	\$1,045,821,504.39
333	6.32%	\$1,111,964,514.33
334	6.32%	\$1,182,290,740.76
335	6.32%	\$1,257,064,751.32
336	6.32%	\$1,336,567,846.25
337	6.32%	\$1,421,099,116.62
338	6.32%	\$1,510,976,569.51
339	6.32%	\$1,606,538,324.39
340	6.32%	\$1,708,143,885.11
341	6.32%	\$1,816,175,492.31
342	6.32%	\$1,931,039,561.50
343	6.32%	\$2,053,168,211.92
344	6.32%	\$2,183,020,892.21
345	6.32%	\$2,321,086,108.85
346	6.32%	\$2,467,883,263.93
347	6.32%	\$2,623,964,609.14
348	6.32%	\$2,789,917,323.35
349	6.32%	\$2,966,365,721.54
350	6.32%	\$3,153,973,603.56
351	6.32%	\$3,353,446,751.25
352	6.32%	\$3,565,535,583.69
353	6.32%	\$3,791,037,980.19
354	6.32%	\$4,030,802,281.99

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**XEL Non-Constant DCF Calculation**

Work Paper Reference No(s):

Schedule D-1.9

Stock Price =	\$	63.27
Annual Dividend =	\$	1.67
DCF Growth Estimate =		5.56%
GNP Growth Rate =		6.32%
Non-Constant DCF =		8.90%
Constant DCF =		8.34%

YEAR	GROWTH RATE	DIVIDEND
355	6.32%	\$4,285,730,483.67
356	6.32%	\$4,556,781,626.52
357	6.32%	\$4,844,975,406.39
358	6.32%	\$5,151,396,009.82
359	6.32%	\$5,477,196,192.79
360	6.32%	\$5,823,601,617.33
361	6.32%	\$6,191,915,462.52
362	6.32%	\$6,583,523,327.02
363	6.32%	\$6,999,898,441.73
364	6.32%	\$7,442,607,212.07
365	6.32%	\$7,913,315,110.83
366	6.32%	\$8,413,792,943.64
367	6.32%	\$8,945,923,510.82
368	6.32%	\$9,511,708,690.43
369	6.32%	\$10,113,276,969.35
370	6.32%	\$10,752,891,450.69
371	6.32%	\$11,432,958,367.57
372	6.32%	\$12,156,036,135.41
373	6.32%	\$12,924,844,976.64
374	6.32%	\$13,742,277,154.28
375	6.32%	\$14,611,407,852.58
376	6.32%	\$15,535,506,745.91
377	6.32%	\$16,518,050,299.28
378	6.32%	\$17,562,734,846.83
379	6.32%	\$18,673,490,497.44
380	6.32%	\$19,854,495,919.88
381	6.32%	\$21,110,194,062.88
382	6.32%	\$22,445,308,869.63
383	6.32%	\$23,864,863,049.22
384	6.32%	\$25,374,196,972.11
385	6.32%	\$26,978,988,760.67
386	6.32%	\$28,685,275,650.22
387	6.32%	\$30,499,476,701.25
388	6.32%	\$32,428,416,947.87
389	6.32%	\$34,479,353,073.69
390	6.32%	\$36,660,000,711.45
391	6.32%	\$38,978,563,469.30
392	6.32%	\$41,443,763,792.84
393	6.32%	\$44,064,875,778.94
394	6.32%	\$46,851,760,065.03
395	6.32%	\$49,814,900,924.78
396	6.32%	\$52,965,445,710.08
397	6.32%	\$56,315,246,787.37
398	6.32%	\$59,876,906,126.34
399	6.32%	\$63,663,822,708.61
400	6.32%	\$67,690,242,934.75

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Growth in U.S. Gross National Product, 1929 to 2019**

Work Paper Reference No(s):

Schedule D-1.10

Year	GNP ( \$billion )	Change ( \$billion )	Growth (%)
1929	105.3		
1930	92.9	-12.40	-11.78%
1931	77.9	-15.00	-16.15%
1932	59.9	-18.00	-23.11%
1933	57.5	-2.40	-4.01%
1934	67.1	9.60	16.70%
1935	74.6	7.50	11.18%
1936	85.1	10.50	14.08%
1937	93.4	8.30	9.75%
1938	87.7	-5.70	-6.10%
1939	93.8	6.10	6.96%
1940	103.2	9.40	10.02%
1941	129.7	26.50	25.68%
1942	166.4	36.70	28.30%
1943	203.4	37.00	22.24%
1944	224.8	21.40	10.52%
1945	228.3	3.50	1.56%
1946	228.2	-0.10	-0.04%
1947	250.7	22.50	9.86%
1948	275.9	25.20	10.05%
1949	273.8	-2.10	-0.76%
1950	301.3	27.50	10.04%
1951	348.8	47.50	15.77%
1952	369.3	20.50	5.88%
1953	391.1	21.80	5.90%
1954	392.6	1.50	0.38%
1955	427.9	35.30	8.99%
1956	452.1	24.20	5.66%
1957	477.1	25.00	5.53%
1958	483.9	6.80	1.43%
1959	524.4	40.50	8.37%
1960	545.5	21.10	4.02%
1961	565.7	20.20	3.70%
1962	608.0	42.30	7.48%
1963	641.9	33.90	5.58%
1964	689.4	47.50	7.40%
1965	747.6	58.20	8.44%
1966	818.5	70.90	9.48%
1967	865.4	46.90	5.73%
1968	946.7	81.30	9.39%
1969	1,023.7	77.00	8.13%
1970	1,079.7	56.00	5.47%
1971	1,172.4	92.70	8.59%
1972	1,287.7	115.30	9.83%
1973	1,438.0	150.30	11.67%
1974	1,560.8	122.80	8.54%
1975	1,697.9	137.10	8.78%
1976	1,890.3	192.40	11.33%
1977	2,102.1	211.80	11.20%
1978	2,373.2	271.10	12.90%
1979	2,659.3	286.10	12.06%
1980	2,891.5	232.20	8.73%
1981	3,240.0	348.50	12.05%
1982	3,380.3	140.30	4.33%
1983	3,671.1	290.80	8.60%
1984	4,073.9	402.80	10.97%
1985	4,364.3	290.40	7.13%
1986	4,596.6	232.30	5.32%
1987	4,872.7	276.10	6.01%
1988	5,259.1	386.40	7.93%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Growth in U.S. Gross National Product, 1929 to 2019**

Work Paper Reference No(s):

Schedule D-1.10

Year	GNP ( \$billion )	Change ( \$billion )	Growth (%)
1989	5,666.4	407.30	7.74%
1990	5,997.8	331.40	5.85%
1991	6,189.7	191.90	3.20%
1992	6,551.4	361.70	5.84%
1993	6,889.7	338.30	5.16%
1994	7,310.2	420.50	6.10%
1995	7,667.7	357.50	4.89%
1996	8,104.0	436.30	5.69%
1997	8,600.9	496.90	6.13%
1998	9,080.2	479.30	5.57%
1999	9,656.2	576.00	6.34%
2000	10,287.4	631.20	6.54%
2001	10,630.6	343.20	3.34%
2002	10,981.7	351.10	3.30%
2003	11,516.6	534.90	4.87%
2004	12,291.9	775.30	6.73%
2005	13,114.6	822.70	6.69%
2006	13,865.1	750.50	5.72%
2007	14,560.9	695.80	5.02%
2008	14,867.5	306.60	2.11%
2009	14,590.9	-276.60	-1.86%
2010	15,187.8	596.90	4.09%
2011	15,779.0	591.20	3.89%
2012	16,429.3	650.30	4.12%
2013	17,015.6	586.30	3.57%
2014	17,768.3	752.70	4.42%
2015	18,458.7	690.40	3.89%
2016	18,977.1	518.40	2.81%
2017	19,835.3	858.20	4.52%
2018	20,896.6	1,061.30	5.35%
2019	21,702.9	806.30	3.86%
Average			<b>6.32%</b>

Source: National Income and Product Accounts ( NIPA ) from the U. S. Bureau of Economic Analysis and Econostats; BEA Data; NIPA Index; Section 1. Domestic Product and Income Table 1.7.5 Relation of Gross Domestic Product, Gross National Product, Net National Product, National Income, and Personal Income.

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**2019 Earned Returns on Equity**

Work Paper Reference No(s):

Schedule D-1.11

2019 Earned Returns on Equity for Constituents of the SPDR Select Sector Fund - Utilities (XLU)						
Company Name	Symbol	S&P Adjusted Net Income	S&P Adjusted Common Equity 2018	S&P Adjusted Common Equity 2019	Average S&P Adjusted Common Equity	ROE
NextEra Energy Inc	NEE	\$ 3,769.0	\$ 34,144.0	\$ 37,005.0	\$ 35,574.5	10.59%
Dominion Energy Inc	D	\$ 1,341.0	\$ 20,107.0	\$ 29,607.0	\$ 24,857.0	5.39%
Duke Energy Corp	DUK	\$ 3,694.0	\$ 43,817.0	\$ 44,860.0	\$ 44,338.5	8.33%
Southern Co	SO	\$ 4,739.0	\$ 24,723.0	\$ 27,505.0	\$ 26,114.0	18.15%
American Electric Power	AEP	\$ 1,921.1	\$ 19,028.4	\$ 19,632.2	\$ 19,330.3	9.94%
Exelon Corp	EXC	\$ 2,936.0	\$ 27,410.0	\$ 32,224.0	\$ 29,817.0	9.85%
Sempra Energy	SRE	\$ 1,692.0	\$ 14,880.0	\$ 17,671.0	\$ 16,275.5	10.40%
Xcel Energy Inc	XEL	\$ 1,372.0	\$ 12,222.0	\$ 13,239.0	\$ 12,730.5	10.78%
WEC Energy Group Inc	WEC	\$ 1,134.0	\$ 9,788.9	\$ 10,113.4	\$ 9,951.2	11.40%
Consolidated Edison Inc	ED	\$ 1,343.0	\$ 16,726.0	\$ 18,022.0	\$ 17,374.0	7.73%
Eversource Energy	ES	\$ 909.1	\$ 11,486.8	\$ 12,630.0	\$ 12,058.4	7.54%
Public Service Enterprise Grp	PEG	\$ 1,693.0	\$ 14,377.0	\$ 15,089.0	\$ 14,733.0	11.49%
FirstEnergy Corp	FE	\$ 900.0	\$ 6,814.0	\$ 6,975.0	\$ 6,894.5	13.05%
American Water Works Co Inc	AWK	\$ 621.0	\$ 5,864.0	\$ 6,121.0	\$ 5,992.5	10.36%
Edison Intl	EIX	\$ 1,284.0	\$ 10,459.0	\$ 13,303.0	\$ 11,881.0	10.81%
PPL Corp	PPL	\$ 1,745.0	\$ 11,657.0	\$ 12,991.0	\$ 12,324.0	14.16%
DTE Energy Co	DTE	\$ 1,167.0	\$ 10,237.0	\$ 11,672.0	\$ 10,954.5	10.65%
Entergy Corp	ETR	\$ 1,241.2	\$ 8,844.3	\$ 10,223.7	\$ 9,534.0	13.02%
Ameren Corp	AEE	\$ 828.0	\$ 7,631.0	\$ 8,059.0	\$ 7,845.0	10.55%
CMS Energy Corp	CMS	\$ 680.0	\$ 4,755.0	\$ 5,018.0	\$ 4,886.5	13.92%
Evergy Inc.	EVRG	\$ 669.9	\$ 10,028.2	\$ 8,571.9	\$ 9,300.1	7.20%
Atmos Energy Corp	ATO	\$ 511.0	\$ 4,770.0	\$ 5,750.2	\$ 5,260.1	9.71%
Alliant Energy Corp	LNT	\$ 557.2	\$ 4,585.7	\$ 5,205.1	\$ 4,895.4	11.38%
Nisource Inc	NI	\$ 328.0	\$ 4,870.9	\$ 5,106.7	\$ 4,988.8	6.57%
Pinnacle West Capital (AZ)	PNW	\$ 538.3	\$ 5,222.9	\$ 5,430.7	\$ 5,326.8	10.11%
AES Corp	AES	\$ 302.0	\$ 3,208.0	\$ 2,996.0	\$ 3,102.0	9.74%
Centerpoint Energy Inc	CNP	\$ 674.0	\$ 6,318.0	\$ 6,619.0	\$ 6,468.5	10.42%
	Totals:	\$ 38,589.8			\$ 372,807.5	10.35%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**2020 Rate Case Authorizations**

Work Paper Reference No(s):

Schedule D-1.12



Rate Case History (Past Rate Cases)

List None

Company List All

States All

Years 2020

Service Type Electric

Return on Equity (%)	
8.20	1st Quartile
8.25	
8.80	
9.10	
9.25	
9.25	
9.30	2nd Quartile
9.40	
9.40	
9.40	
9.40	
9.45	
9.45	3rd Quartile
9.50	
9.50	
9.60	
9.70	
9.70	
9.70	4th Quartile
9.75	
9.86	
9.90	
10.00	
10.00	
10.02	
9.50	Average of 2nd + 3rd Quartiles

**MODIFICATIONS:**

\* Removed Limited-Issue Rider results

\* Removed Transmission results

\* Sorted based on ROE granted

\* Removed NA results for ROEs

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Embedded Cost of Short-Term Debt**

**Work Paper Reference No(s):**

**Schedule D-2**  
**Page 1 of 1**

LINE NO	ISSUE	AMOUNT OUTSTANDING	INTEREST RATE	INTEREST REQUIREMENT
(A)	(B)	(C)	(D)	(E)
1	Ohio Power Company	\$ 130,991,516	2.10%	\$ 2,753,966



OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Embedded Cost of Long-Term Debt

Work Paper Reference No(s):

Schedule D-3  
Page 1 of 1

LINE NO.	(1) DESCRIPTION	(2) INTEREST RATE %	(3) ISSUE DATE	(4) MATURITY DATE	(5) TERM IN YEARS	(6) PRINCIPAL OUTSTANDING \$	(7) PRINCIPAL AMOUNT ISSUED \$	(8) PREMIUM OR (DISCOUNT) AT ISSUANCES \$	(9) ISSUANCE EXPENSE \$	(10) COST OF REACQUIRED DEBT \$	(11) NET PROCEEDS (C7 + C8 + C9 + C10) \$	(12) EFFECTIVE COST RATE %	(13) ANNUALIZED COST (C6 X C12) \$
1	Senior Unsecured Notes, Series D	6.600%	2/14/2003	3/1/2033	30.0	250,000,000	250,000,000	1,180,000	2,187,500	-	253,367,500	6.50%	16,242,812
2	Senior Unsecured Notes, Series F	5.850%	10/14/2005	10/1/2035	30.0	250,000,000	250,000,000	2,815,000	2,187,500	-	255,002,500	5.71%	14,274,018
3	Senior Unsecured Notes, Series G	6.600%	2/14/2003	2/15/2033	30.0	250,000,000	250,000,000	1,165,000	2,368,087	-	253,533,087	6.49%	16,231,015
4	Senior Unsecured Notes, Series M	5.375%	9/24/2009	10/1/2021	12.0	500,000,000	500,000,000	2,065,000	(13,109,291) (2)	-	488,955,709	5.63%	28,151,171
5	Senior Unsecured Notes, Series N	4.150%	3/22/2018	4/1/2048	30.0	400,000,000	400,000,000	2,928,000	4,165,966	-	407,093,966	4.05%	16,189,446
6	Senior Unsecured Notes, Series O	4.000%	5/22/2019	6/1/2049	30.0	450,000,000	450,000,000	1,098,000	4,665,098	-	455,763,098	3.93%	17,671,248
7	Total Senior Unsecured Notes					2,100,000,000	2,100,000,000	11,251,000	2,464,860	-	2,113,715,860		108,759,708
8													
9													
10										Cost of			
11										Reacquired			Annual
12	Unrefunded Redeemed IPC									Debt			Amortization
13	Unrefunded Redeemed FMB									(227,579)			52,259
14	Unrefunded Redeemed Debentures									(1,446,192)			451,867
15	Unrefunded Redeemed Senior Unsecured									(914,616)			296,632
16	Total Unrefunded Redeemed Notes									(1,496,513)			96,726
17										(4,084,899)			897,485
18	Total Long Term Debt					<u>2,100,000,000</u>							
19													
20	Total Annualized Cost of Long Term Debt												109,657,193
21													
22	Total Principal Outstanding												2,100,000,000
23													
24	Weighted Average Cost of Long Term Debt												5.22%

(1) The 7.90% weighted average cost of capital included in the pre-filing notice was based, in part, on an embedded cost of long-term debt of 5.22%. Subsequent to that filing an adjustment to the application of "Premium/(Discount) at Issuance" and "Issuance Expenses" in the embedded cost of long-term debt was identified. After that adjustment, the embedded cost of long-term debt is 5.26%, resulting in an adjusted weighted average cost of capital of 7.92%.

(2) Hedging gain is included in original expense: \$16,792,128 gain on Series M

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 127 of 154
											% Change (J=E÷H)
1								0.04026			
2	<b>OP RS</b>		0	13.02	9.27	(3.75)	-28.77%	-	13.02	9.27	-28.77%
3			30	15.07	11.33	(3.74)	-24.82%	1.21	16.28	12.54	-22.97%
4			70	17.81	14.08	(3.73)	-20.96%	2.82	20.63	16.89	-18.10%
5			120	21.23	17.51	(3.72)	-17.54%	4.83	26.06	22.34	-14.29%
6			200	26.70	22.99	(3.71)	-13.88%	8.05	34.75	31.05	-10.67%
7			300	33.54	29.85	(3.69)	-10.99%	12.08	45.62	41.93	-8.08%
8			500	47.22	43.57	(3.65)	-7.73%	20.13	67.35	63.70	-5.42%
9			800	67.74	64.15	(3.59)	-5.30%	32.21	99.95	96.36	-3.59%
10			1,000	81.42	77.87	(3.55)	-4.36%	40.26	121.68	118.13	-2.92%
11			1,200	95.10	91.59	(3.51)	-3.69%	48.31	143.41	139.90	-2.45%
12			1,500	115.62	112.17	(3.45)	-2.99%	60.39	176.01	172.56	-1.96%
13			2,000	149.82	146.46	(3.36)	-2.24%	80.52	230.34	226.98	-1.46%
14			4,000	285.70	282.73	(2.97)	-1.04%	161.04	446.74	443.77	-0.66%
15			5,000	353.64	350.87	(2.77)	-0.78%	201.30	554.94	552.17	-0.50%
16			8,000	557.46	555.27	(2.19)	-0.39%	322.08	879.54	877.35	-0.25%
17			10,000	693.34	691.54	(1.80)	-0.26%	402.60	1,095.94	1,094.14	-0.16%
18			12,000	829.21	827.81	(1.41)	-0.17%	483.12	1,312.33	1,310.93	-0.11%
19			15,000	1,033.03	1,032.21	(0.82)	-0.08%	603.90	1,636.93	1,636.11	-0.05%
20											
21	<b>OP RS-TOD</b>										
22	On - Peak		1,000	82.03	77.29	(4.74)	-5.78%	40.26	122.29	117.55	-3.88%
23	Off-Peak		2,000	149.85	145.30	(4.55)	-3.04%	80.52	230.37	225.82	-1.97%
24			3,000	217.21	212.86	(4.35)	-2.00%	120.78	337.99	333.64	-1.29%
25			4,000	284.57	280.41	(4.16)	-1.46%	161.04	445.61	441.45	-0.93%
26			5,000	351.93	347.97	(3.96)	-1.13%	201.30	553.23	549.27	-0.72%
27			6,000	419.29	415.52	(3.77)	-0.90%	241.56	660.85	657.08	-0.57%
28			7,000	486.65	483.07	(3.58)	-0.73%	281.82	768.47	764.89	-0.47%
29			8,000	554.01	550.63	(3.38)	-0.61%	322.08	876.09	872.71	-0.39%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 128 of 154
											% Change (J=E÷H)
1	<b>OP</b> RS-TOD										
2	On - Peak		1,000	82.83	78.09	(4.74)	-5.73%	40.26	123.09	118.35	-3.85%
3	Off-Peak		2,000	151.45	146.90	(4.55)	-3.00%	80.52	231.97	227.42	-1.96%
4			3,000	219.61	215.26	(4.35)	-1.98%	120.78	340.39	336.04	-1.28%
5			4,000	287.77	283.61	(4.16)	-1.45%	161.04	448.81	444.65	-0.93%
6			5,000	355.93	351.96	(3.96)	-1.11%	201.30	557.23	553.26	-0.71%
7			6,000	424.09	420.32	(3.77)	-0.89%	241.56	665.65	661.88	-0.57%
8			7,000	492.25	488.67	(3.58)	-0.73%	281.82	774.07	770.49	-0.46%
9			8,000	560.41	557.02	(3.38)	-0.60%	322.08	882.49	879.10	-0.38%
10	<b>OP</b> RS-TOD										
11	On - Peak		1,000	83.63	78.89	(4.74)	-5.67%	40.26	123.89	119.15	-3.83%
12	Off-Peak		2,000	153.05	148.50	(4.55)	-2.97%	80.52	233.57	229.02	-1.95%
13			3,000	222.01	217.66	(4.35)	-1.96%	120.78	342.79	338.44	-1.27%
14			4,000	290.97	286.81	(4.16)	-1.43%	161.04	452.01	447.85	-0.92%
15			5,000	359.93	355.96	(3.96)	-1.10%	201.30	561.23	557.26	-0.71%
16			6,000	428.89	425.12	(3.77)	-0.88%	241.56	670.45	666.68	-0.56%
17			7,000	497.84	494.27	(3.58)	-0.72%	281.82	779.66	776.09	-0.46%
18			8,000	566.80	563.42	(3.38)	-0.60%	322.08	888.88	885.50	-0.38%
19											
20	<b>OP</b> RS-ES										
21	On - Peak		1,000	80.43	75.69	(4.74)	-5.90%	40.26	120.69	115.95	-3.93%
22	Off-Peak		2,000	146.65	142.10	(4.55)	-3.10%	80.52	227.17	222.62	-2.00%
23			3,000	212.41	208.06	(4.35)	-2.05%	120.78	333.19	328.84	-1.31%
24			4,000	278.17	274.01	(4.16)	-1.50%	161.04	439.21	435.05	-0.95%
25			5,000	343.93	339.97	(3.96)	-1.15%	201.30	545.23	541.27	-0.73%
26			6,000	409.69	405.92	(3.77)	-0.92%	241.56	651.25	647.48	-0.58%
27			7,000	475.45	471.88	(3.58)	-0.75%	281.82	757.27	753.70	-0.47%
28			8,000	541.21	537.83	(3.38)	-0.62%	322.08	863.29	859.91	-0.39%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 129 of 154
											% Change (J=E÷H)
1	<b>OP RS-ES</b>										
2	On - Peak		1,000	81.23	76.49	(4.74)	-5.84%	40.26	121.49	116.75	-3.91%
3	Off-Peak		2,000	148.25	143.70	(4.55)	-3.07%	80.52	228.77	224.22	-1.99%
4			3,000	214.81	210.46	(4.35)	-2.03%	120.78	335.59	331.24	-1.30%
5			4,000	281.37	277.21	(4.16)	-1.48%	161.04	442.41	438.25	-0.94%
6			5,000	347.93	343.97	(3.96)	-1.14%	201.30	549.23	545.27	-0.72%
7			6,000	414.49	410.72	(3.77)	-0.91%	241.56	656.05	652.28	-0.57%
8			7,000	481.05	477.48	(3.58)	-0.74%	281.82	762.87	759.30	-0.47%
9			8,000	547.61	544.23	(3.38)	-0.62%	322.08	869.69	866.31	-0.39%
10	<b>OP RS-ES</b>										
11	On - Peak		1,000	82.03	77.29	(4.74)	-5.78%	40.26	122.29	117.55	-3.88%
12	Off-Peak		2,000	149.85	145.30	(4.55)	-3.04%	80.52	230.37	225.82	-1.97%
13			3,000	217.21	212.86	(4.35)	-2.00%	120.78	337.99	333.64	-1.29%
14			4,000	284.57	280.41	(4.16)	-1.46%	161.04	445.61	441.45	-0.93%
15			5,000	351.93	347.97	(3.96)	-1.13%	201.30	553.23	549.27	-0.72%
16			6,000	419.29	415.52	(3.77)	-0.90%	241.56	660.85	657.08	-0.57%
17			7,000	486.65	483.07	(3.58)	-0.73%	281.82	768.47	764.89	-0.47%
18			8,000	554.01	550.63	(3.38)	-0.61%	322.08	876.09	872.71	-0.39%
19											
20	<b>OP GS-1</b>							<b>0.04026</b>			
21	Unmetered		50	25.03	18.42	(6.61)	-26.41%	2.01	27.04	20.43	-24.45%
22			100	26.91	20.99	(5.92)	-21.99%	4.03	30.94	25.02	-19.13%
23			150	28.80	23.57	(5.23)	-18.15%	6.04	34.84	29.61	-15.01%
24			200	30.69	26.15	(4.54)	-14.79%	8.05	38.74	34.20	-11.71%
25			400	38.23	36.46	(1.77)	-4.64%	16.10	54.34	52.56	-3.27%
26			700	49.56	51.93	2.37	4.78%	28.18	77.74	80.11	3.05%
27			1,000	60.88	67.39	6.52	10.70%	40.26	101.14	107.65	6.44%
28			1,500	79.74	93.17	13.42	16.83%	60.39	140.13	153.56	9.58%
29			2,000	98.61	118.94	20.33	20.62%	80.52	179.13	199.46	11.35%
30			4,000	173.16	221.13	47.96	27.70%	161.04	334.20	382.17	14.35%
31			8,000	322.27	425.49	103.23	32.03%	322.08	644.35	747.57	16.02%
32			10,000	396.82	527.68	130.86	32.98%	402.60	799.42	930.28	16.37%
33			15,000	583.20	783.14	199.94	34.28%	603.90	1,187.10	1,387.04	16.84%
34			25,000	950.36	1,288.46	338.10	35.58%	1,006.50	1,956.86	2,294.96	17.28%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 130 of 154
											% Change (J=E÷H)
1	<b>OP GS-1-ES</b>										
2	<b>On-Peak</b>		500	48.64	43.99	(4.65)	-9.57%	20.13	68.77	64.12	-6.77%
3	<b>Off-Peak</b>		1,000	65.77	68.02	2.25	3.43%	40.26	106.03	108.28	2.13%
4			2,000	100.02	116.09	16.07	16.07%	80.52	180.54	196.61	8.90%
5			4,000	167.61	211.31	43.70	26.07%	161.04	328.65	372.35	13.30%
6			6,000	235.19	306.53	71.33	30.33%	241.56	476.75	548.09	14.96%
7			8,000	302.78	401.75	98.97	32.69%	322.08	624.86	723.83	15.84%
8											
9	<b>On-Peak</b>		500	49.00	44.34	(4.65)	-9.50%	20.13	69.13	64.47	-6.73%
10	<b>Off-Peak</b>		1,000	66.48	68.73	2.25	3.39%	40.26	106.74	108.99	2.11%
11			2,000	101.44	117.51	16.07	15.84%	80.52	181.96	198.03	8.83%
12			4,000	170.44	214.14	43.70	25.64%	161.04	331.48	375.18	13.18%
13			6,000	239.44	310.77	71.33	29.79%	241.56	481.00	552.33	14.83%
14			8,000	308.44	407.41	98.97	32.09%	322.08	630.52	729.49	15.70%
15											
16	<b>On-Peak</b>		500	49.35	44.70	(4.65)	-9.43%	20.13	69.48	64.83	-6.70%
17	<b>Off-Peak</b>		1,000	67.19	69.44	2.25	3.35%	40.26	107.45	109.70	2.10%
18			2,000	102.85	118.92	16.07	15.62%	80.52	183.37	199.44	8.76%
19			4,000	173.27	216.97	43.70	25.22%	161.04	334.31	378.01	13.07%
20			6,000	243.68	315.02	71.33	29.27%	241.56	485.24	556.58	14.70%
21			8,000	314.10	413.07	98.97	31.51%	322.08	636.18	735.15	15.56%
22											

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand	Level of Usage	Current Bill	Proposed Bill	Dollar Increase	% Increase	Annualized Fuel Cost Additions to Bill	Current Total Bill Including Fuel	Proposed Total Bill Including Fuel	Schedule E-5
		(A)	(B)	(C)	(D)	(E=D-C)	(F = E÷C)	(G)	(H = C+G)	(I= D+G)	Page 131 of 154
											% Change (J=E÷H)
1	OP	GS-1									
2		1	600	54.16	50.89	(3.27)	-6.04%	24.16	78.32	75.04	-4.18%
3		2	700	57.93	56.04	(1.89)	-3.26%	28.18	86.11	84.22	-2.20%
4		2	800	61.71	61.20	(0.51)	-0.83%	32.21	93.91	93.41	-0.54%
5		2	900	65.48	66.35	0.87	1.33%	36.23	101.71	102.59	0.86%
6		3	1,200	76.80	81.82	5.02	6.53%	48.31	125.11	130.13	4.01%
7		3	1,400	84.35	92.13	7.78	9.22%	56.36	140.71	148.49	5.53%
8		4	1,600	91.90	102.44	10.54	11.47%	64.42	156.31	166.85	6.75%
9		4	1,800	99.44	112.75	13.31	13.38%	72.47	171.91	185.22	7.74%
10		5	2,100	110.72	128.17	17.45	15.76%	84.55	195.26	212.71	8.94%
11		5	2,400	121.90	143.50	21.60	17.72%	96.62	218.52	240.12	9.88%
12		6	2,700	133.08	158.82	25.74	19.34%	108.70	241.78	267.53	10.65%
13		6	2,800	136.81	163.93	27.12	19.83%	112.73	249.54	276.66	10.87%
14		7	3,000	144.27	174.15	29.89	20.72%	120.78	265.05	294.93	11.28%
15		7	3,200	151.72	184.37	32.65	21.52%	128.83	280.55	313.20	11.64%
16		8	3,500	162.90	199.70	36.79	22.59%	140.91	303.81	340.61	12.11%
17		8	3,600	166.63	204.81	38.18	22.91%	144.94	311.57	349.74	12.25%
18		9	4,000	181.54	225.24	43.70	24.07%	161.04	342.58	386.28	12.76%
19		10	4,500	200.18	250.79	50.61	25.28%	181.17	381.35	431.96	13.27%
20											
21	OP	GS-2-									
22			50	39.95	22.53	(17.42)	-43.61%	2.01	41.96	24.54	-41.51%
23			100	42.53	25.10	(17.43)	-40.99%	4.03	46.56	29.13	-37.44%
24			150	45.12	27.67	(17.45)	-38.67%	6.04	51.16	33.71	-34.10%
25			200	47.70	30.25	(17.46)	-36.60%	8.05	55.76	38.30	-31.31%
26			400	58.04	40.53	(17.51)	-30.17%	16.10	74.15	56.64	-23.62%
27			700	73.56	55.97	(17.59)	-23.91%	28.18	101.74	84.15	-17.29%
28			1,000	89.07	71.40	(17.67)	-19.83%	40.26	129.33	111.66	-13.66%
29			1,500	114.92	97.13	(17.80)	-15.49%	60.39	175.31	157.52	-10.15%
30			2,000	140.77	122.85	(17.93)	-12.73%	80.52	221.29	203.37	-8.10%
31			4,000	243.27	224.82	(18.45)	-7.58%	161.04	404.31	385.86	-4.56%
32			8,000	448.25	428.77	(19.48)	-4.35%	322.08	770.33	750.85	-2.53%
33			10,000	550.74	530.74	(20.00)	-3.63%	402.60	953.34	933.34	-2.10%
34			15,000	806.98	785.67	(21.30)	-2.64%	603.90	1,410.88	1,389.57	-1.51%
35			25,000	1,313.84	1,289.94	(23.90)	-1.82%	1,006.50	2,320.34	2,296.44	-1.03%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 132 of 154
											% Change (J=E÷H)
1	<b>OP GS-2</b>							<b>0.04026</b>			
2	<b>Secondary</b>	10	1,000	169.94	97.56	(72.38)	-42.59%	40.26	210.20	137.82	-34.43%
3		10	2,000	191.20	136.67	(54.53)	-28.52%	80.52	271.72	217.19	-20.07%
4		10	3,000	212.00	175.32	(36.68)	-17.30%	120.78	332.78	296.10	-11.02%
5		25	2,500	361.02	304.51	(56.52)	-15.65%	100.65	461.67	405.16	-12.24%
6		25	5,000	413.03	392.17	(20.85)	-5.05%	201.30	614.33	593.47	-3.39%
7		25	7,500	465.03	444.02	(21.01)	-4.52%	301.95	766.98	745.97	-2.74%
8		50	5,000	678.73	639.69	(39.04)	-5.75%	201.30	880.03	840.99	-4.44%
9		50	10,000	782.74	743.38	(39.36)	-5.03%	402.60	1,185.34	1,145.98	-3.32%
10		50	15,000	886.75	847.07	(39.67)	-4.47%	603.90	1,490.65	1,450.97	-2.66%
11		75	7,500	996.44	939.06	(57.38)	-5.76%	301.95	1,298.39	1,241.01	-4.42%
12		75	15,000	1,152.45	1,094.60	(57.86)	-5.02%	603.90	1,756.35	1,698.50	-3.29%
13		75	22,500	1,304.26	1,245.93	(58.33)	-4.47%	905.85	2,210.11	2,151.78	-2.64%
14		100	10,000	1,314.15	1,238.43	(75.72)	-5.76%	402.60	1,716.75	1,641.03	-4.41%
15		100	20,000	1,519.36	1,443.01	(76.36)	-5.03%	805.20	2,324.56	2,248.21	-3.28%
16		100	30,000	1,721.78	1,644.79	(76.99)	-4.47%	1,207.80	2,929.58	2,852.59	-2.63%
17		200	20,000	2,582.19	2,433.09	(149.09)	-5.77%	805.20	3,387.39	3,238.29	-4.40%
18		200	40,000	2,987.01	2,836.65	(150.36)	-5.03%	1,610.40	4,597.41	4,447.05	-3.27%
19		200	60,000	3,391.84	3,240.21	(151.63)	-4.47%	2,415.60	5,807.44	5,655.81	-2.61%
20		500	50,000	6,377.90	6,008.69	(369.21)	-5.79%	2,013.00	8,390.90	8,021.69	-4.40%
21		500	100,000	7,389.96	7,017.59	(372.37)	-5.04%	4,026.00	11,415.96	11,043.59	-3.26%
22		500	150,000	8,402.03	8,026.49	(375.54)	-4.47%	6,039.00	14,441.03	14,065.49	-2.60%
23		1,000	100,000	12,704.08	11,968.02	(736.06)	-5.79%	4,026.00	16,730.08	15,994.02	-4.40%
24		1,000	200,000	14,728.21	13,985.82	(742.39)	-5.04%	8,052.00	22,780.21	22,037.82	-3.26%
25		1,000	300,000	16,752.34	16,003.62	(748.72)	-4.47%	12,078.00	28,830.34	28,081.62	-2.60%
26		3,000	300,000	38,008.80	35,805.34	(2,203.46)	-5.80%	12,078.00	50,086.80	47,883.34	-4.40%
27		3,000	600,000	44,081.19	41,858.74	(2,222.45)	-5.04%	24,156.00	68,237.19	66,014.74	-3.26%
28		3,000	900,000	49,997.99	47,756.55	(2,241.44)	-4.48%	36,234.00	86,231.99	83,990.55	-2.60%
29		7,000	700,000	88,618.24	83,479.97	(5,138.27)	-5.80%	28,182.00	116,800.24	111,661.97	-4.40%
30		7,000	1,400,000	101,470.46	96,287.88	(5,182.58)	-5.11%	56,364.00	157,834.46	152,651.88	-3.28%
31		7,000	2,100,000	114,013.83	108,786.94	(5,226.89)	-4.58%	84,546.00	198,559.83	193,332.94	-2.63%
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OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Typical Bill Comparison

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5
											Page 133 of 154 % Change (J=E÷H)
1	<b>OP GS-2</b>							<b>0.03886</b>			
2	<b>Primary</b>	10	1,000	275.12	241.23	(33.89)	-12.32%	38.86	313.98	280.09	-10.79%
3		10	2,000	296.10	274.72	(21.38)	-7.22%	77.72	373.82	352.44	-5.72%
4		10	3,000	316.62	307.75	(8.87)	-2.80%	116.58	433.20	424.33	-2.05%
5		25	2,500	467.05	442.06	(24.99)	-5.35%	97.15	564.20	539.21	-4.43%
6		25	5,000	518.35	518.34	(0.00)	0.00%	194.30	712.65	712.64	0.00%
7		25	7,500	569.65	569.49	(0.16)	-0.03%	291.45	861.10	860.94	-0.02%
8		50	5,000	786.16	769.72	(16.44)	-2.09%	194.30	980.46	964.02	-1.68%
9		50	10,000	888.76	872.00	(16.76)	-1.89%	388.60	1,277.36	1,260.60	-1.31%
10		50	15,000	991.36	974.29	(17.07)	-1.72%	582.90	1,574.26	1,557.19	-1.08%
11		75	7,500	1,105.27	1,072.24	(33.03)	-2.99%	291.45	1,396.72	1,363.69	-2.37%
12		75	15,000	1,259.17	1,225.66	(33.51)	-2.66%	582.90	1,842.07	1,808.56	-1.82%
13		75	22,500	1,408.87	1,374.89	(33.98)	-2.41%	874.35	2,283.22	2,249.24	-1.49%
14		100	10,000	1,424.38	1,374.75	(49.63)	-3.48%	388.60	1,812.98	1,763.35	-2.74%
15		100	20,000	1,626.78	1,576.52	(50.26)	-3.09%	777.20	2,403.98	2,353.72	-2.09%
16		100	30,000	1,826.38	1,775.48	(50.90)	-2.79%	1,165.80	2,992.18	2,941.28	-1.70%
17		200	20,000	2,698.02	2,582.01	(116.01)	-4.30%	777.20	3,475.22	3,359.21	-3.34%
18		200	40,000	3,097.22	2,979.95	(117.28)	-3.79%	1,554.40	4,651.62	4,534.35	-2.52%
19		200	60,000	3,496.42	3,377.88	(118.54)	-3.39%	2,331.60	5,828.02	5,709.48	-2.03%
20		500	50,000	6,510.56	6,195.41	(315.15)	-4.84%	1,943.00	8,453.56	8,138.41	-3.73%
21		500	100,000	7,508.56	7,190.24	(318.32)	-4.24%	3,886.00	11,394.56	11,076.24	-2.79%
22		500	150,000	8,506.56	8,185.08	(321.48)	-3.78%	5,829.00	14,335.56	14,014.08	-2.24%
23		1,000	100,000	12,864.78	12,217.72	(647.05)	-5.03%	3,886.00	16,750.78	16,103.72	-3.86%
24		1,000	200,000	14,860.78	14,207.39	(653.38)	-4.40%	7,772.00	22,632.78	21,979.39	-2.89%
25		1,000	300,000	16,856.78	16,197.06	(659.71)	-3.91%	11,658.00	28,514.78	27,855.06	-2.31%
26		3,000	300,000	38,281.65	36,307.00	(1,974.66)	-5.16%	11,658.00	49,939.65	47,965.00	-3.95%
27		3,000	600,000	44,269.65	42,276.01	(1,993.65)	-4.50%	23,316.00	67,585.65	65,592.01	-2.95%
28		3,000	900,000	50,102.07	48,089.43	(2,012.64)	-4.02%	34,974.00	85,076.07	83,063.43	-2.37%
29		7,000	700,000	89,115.41	84,485.55	(4,629.86)	-5.20%	27,202.00	116,317.41	111,687.55	-3.98%
30		7,000	1,400,000	101,770.72	97,096.55	(4,674.17)	-4.59%	54,404.00	156,174.72	151,500.55	-2.99%
31		7,000	2,100,000	114,117.18	109,398.70	(4,718.48)	-4.13%	81,606.00	195,723.18	191,004.70	-2.41%
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OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Typical Bill Comparison

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5
											Page 134 of 154 % Change (J=E÷H)
1	<b>OP GS-2</b>							<b>0.03809</b>			
2	<b>Subtransmission</b>	10	1,000	812.41	904.73	92.32	11.36%	38.09	850.50	942.82	10.86%
3		10	2,000	829.31	921.57	92.26	11.12%	76.18	905.49	997.75	10.19%
4		10	3,000	845.76	937.95	92.20	10.90%	114.27	960.03	1,052.22	9.60%
5		25	2,500	910.88	1,019.68	108.80	11.94%	95.23	1,006.11	1,114.91	10.81%
6		25	5,000	952.00	1,060.64	108.64	11.41%	190.45	1,142.45	1,251.09	9.51%
7		25	7,500	993.11	1,101.59	108.48	10.92%	285.68	1,278.78	1,387.26	8.48%
8		50	5,000	1,074.25	1,210.50	136.25	12.68%	190.45	1,264.70	1,400.95	10.77%
9		50	10,000	1,156.47	1,292.41	135.94	11.75%	380.90	1,537.37	1,673.31	8.84%
10		50	15,000	1,238.69	1,374.31	135.62	10.95%	571.35	1,810.04	1,945.66	7.49%
11		75	7,500	1,237.61	1,401.32	163.71	13.23%	285.68	1,523.28	1,686.99	10.75%
12		75	15,000	1,360.94	1,524.18	163.24	11.99%	571.35	1,932.29	2,095.53	8.45%
13		75	22,500	1,480.08	1,642.84	162.76	11.00%	857.03	2,337.10	2,499.86	6.96%
14		100	10,000	1,400.97	1,592.14	191.17	13.65%	380.90	1,781.87	1,973.04	10.73%
15		100	20,000	1,562.61	1,753.15	190.54	12.19%	761.80	2,324.41	2,514.95	8.20%
16		100	30,000	1,721.46	1,911.36	189.90	11.03%	1,142.70	2,864.16	3,054.06	6.63%
17		200	20,000	2,051.61	2,352.61	301.00	14.67%	761.80	2,813.41	3,114.41	10.70%
18		200	40,000	2,369.31	2,669.04	299.73	12.65%	1,523.60	3,892.91	4,192.64	7.70%
19		200	60,000	2,687.00	2,985.46	298.47	11.11%	2,285.40	4,972.40	5,270.86	6.00%
20		500	50,000	3,995.15	4,625.64	630.48	15.78%	1,904.50	5,899.65	6,530.14	10.69%
21		500	100,000	4,789.38	5,416.70	627.32	13.10%	3,809.00	8,598.38	9,225.70	7.30%
22		500	150,000	5,583.61	6,207.77	624.15	11.18%	5,713.50	11,297.11	11,921.27	5.52%
23		1,000	100,000	7,234.38	8,414.01	1,179.62	16.31%	3,809.00	11,043.38	12,223.01	10.68%
24		1,000	200,000	8,822.84	9,996.14	1,173.29	13.30%	7,618.00	16,440.84	17,614.14	7.14%
25		1,000	300,000	10,411.30	11,578.27	1,166.96	11.21%	11,427.00	21,838.30	23,005.27	5.34%
26		3,000	300,000	20,191.30	21,672.88	1,481.58	7.34%	11,427.00	31,618.30	33,099.88	4.69%
27		3,000	600,000	24,956.68	26,419.27	1,462.59	5.86%	22,854.00	47,810.68	49,273.27	3.06%
28		3,000	900,000	29,566.48	31,010.07	1,443.60	4.88%	34,281.00	63,847.48	65,291.07	2.26%
29		7,000	700,000	46,105.14	44,401.40	(1,703.74)	-3.70%	26,663.00	72,768.14	71,064.40	-2.34%
30		7,000	1,400,000	55,907.68	54,159.62	(1,748.05)	-3.13%	53,326.00	109,233.68	107,485.62	-1.60%
31		7,000	2,100,000	65,401.36	63,608.99	(1,792.36)	-2.74%	79,989.00	145,390.36	143,597.99	-1.23%
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**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5
											% Change (J=E÷H)
1	<b>OP GS-3</b>							<b>0.04026</b>			
2	<b>Secondary</b>	10	3,500	222.40	194.64	(27.76)	-12.48%	140.91	363.31	335.55	-7.64%
3		10	4,500	243.20	233.29	(9.91)	-4.08%	181.17	424.37	414.46	-2.34%
4		10	5,500	264.01	254.03	(9.98)	-3.78%	221.43	485.44	475.46	-2.06%
5		25	8,750	491.03	469.94	(21.09)	-4.30%	352.28	843.31	822.22	-2.50%
6		25	11,250	543.04	521.79	(21.25)	-3.91%	452.93	995.96	974.71	-2.13%
7		25	13,750	595.04	573.63	(21.41)	-3.60%	553.58	1,148.61	1,127.21	-1.86%
8		50	17,500	937.35	897.52	(39.83)	-4.25%	704.55	1,641.90	1,602.07	-2.43%
9		50	22,500	1,038.56	998.41	(40.15)	-3.87%	905.85	1,944.41	1,904.26	-2.06%
10		50	27,500	1,139.76	1,099.30	(40.46)	-3.55%	1,107.15	2,246.91	2,206.45	-1.80%
11		75	26,250	1,380.17	1,321.60	(58.57)	-4.24%	1,056.83	2,436.99	2,378.42	-2.40%
12		75	33,750	1,531.98	1,472.93	(59.04)	-3.85%	1,358.78	2,890.75	2,831.71	-2.04%
13		75	41,250	1,683.79	1,624.27	(59.52)	-3.53%	1,660.73	3,344.51	3,284.99	-1.78%
14		100	35,000	1,822.98	1,745.68	(77.31)	-4.24%	1,409.10	3,232.08	3,154.78	-2.39%
15		100	45,000	2,025.40	1,947.46	(77.94)	-3.85%	1,811.70	3,837.10	3,759.16	-2.03%
16		100	55,000	2,227.81	2,149.24	(78.57)	-3.53%	2,214.30	4,442.11	4,363.54	-1.77%
17		200	70,000	3,594.25	3,441.99	(152.26)	-4.24%	2,818.20	6,412.45	6,260.19	-2.37%
18		200	90,000	3,999.08	3,845.55	(153.53)	-3.84%	3,623.40	7,622.48	7,468.95	-2.01%
19		200	110,000	4,403.90	4,249.11	(154.79)	-3.51%	4,428.60	8,832.50	8,677.71	-1.75%
20		500	175,000	8,908.06	8,530.94	(377.12)	-4.23%	7,045.50	15,953.56	15,576.44	-2.36%
21		500	225,000	9,920.12	9,539.84	(380.28)	-3.83%	9,058.50	18,978.62	18,598.34	-2.00%
22		500	275,000	10,932.19	10,548.74	(383.45)	-3.51%	11,071.50	22,003.69	21,620.24	-1.74%
23		1,000	350,000	17,764.40	17,012.52	(751.88)	-4.23%	14,091.00	31,855.40	31,103.52	-2.36%
24		1,000	450,000	19,788.53	19,030.32	(758.21)	-3.83%	18,117.00	37,905.53	37,147.32	-2.00%
25		1,000	550,000	21,812.66	21,048.12	(764.54)	-3.51%	22,143.00	43,955.66	43,191.12	-1.74%
26		3,000	1,050,000	52,685.85	50,434.92	(2,250.94)	-4.27%	42,273.00	94,958.85	92,707.92	-2.37%
27		3,000	1,350,000	58,061.58	55,791.66	(2,269.93)	-3.91%	54,351.00	112,412.58	110,142.66	-2.02%
28		3,000	1,650,000	63,437.31	61,148.40	(2,288.92)	-3.61%	66,429.00	129,866.31	127,577.40	-1.76%
29		7,000	2,450,000	120,285.52	115,036.47	(5,249.04)	-4.36%	98,637.00	218,922.52	213,673.47	-2.40%
30		7,000	3,150,000	132,828.89	127,535.53	(5,293.35)	-3.99%	126,819.00	259,647.89	254,354.53	-2.04%
31		7,000	3,850,000	145,372.26	140,034.59	(5,337.66)	-3.67%	155,001.00	300,373.26	295,035.59	-1.78%
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OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Typical Bill Comparison

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 136 of 154
											% Change (J=E÷H)
1	<b>OP GS-3</b>							<b>0.03886</b>			
2	<b>Primary</b>	10	3,500	326.88	324.26	(2.62)	-0.80%	136.01	462.89	460.27	-0.57%
3		10	4,500	347.40	357.29	9.89	2.85%	174.87	522.27	532.16	1.89%
4		10	5,500	367.92	377.75	9.83	2.67%	213.73	581.65	591.48	1.69%
5		25	8,750	595.30	595.06	(0.24)	-0.04%	340.03	935.32	935.08	-0.03%
6		25	11,250	646.60	646.20	(0.40)	-0.06%	437.18	1,083.77	1,083.37	-0.04%
7		25	13,750	697.90	697.34	(0.56)	-0.08%	534.33	1,232.22	1,231.67	-0.05%
8		50	17,500	1,041.26	1,024.03	(17.23)	-1.65%	680.05	1,721.31	1,704.08	-1.00%
9		50	22,500	1,141.06	1,123.51	(17.55)	-1.54%	874.35	2,015.41	1,997.86	-0.87%
10		50	27,500	1,240.86	1,222.99	(17.86)	-1.44%	1,068.65	2,309.51	2,291.64	-0.77%
11		75	26,250	1,483.72	1,449.50	(34.22)	-2.31%	1,020.08	2,503.79	2,469.57	-1.37%
12		75	33,750	1,633.42	1,598.72	(34.70)	-2.12%	1,311.53	2,944.94	2,910.25	-1.18%
13		75	41,250	1,783.12	1,747.95	(35.17)	-1.97%	1,602.98	3,386.09	3,350.92	-1.04%
14		100	35,000	1,926.18	1,874.97	(51.21)	-2.66%	1,360.10	3,286.28	3,235.07	-1.56%
15		100	45,000	2,125.78	2,073.94	(51.85)	-2.44%	1,748.70	3,874.48	3,822.64	-1.34%
16		100	55,000	2,325.38	2,272.90	(52.48)	-2.26%	2,137.30	4,462.68	4,410.20	-1.18%
17		200	70,000	3,696.02	3,576.85	(119.18)	-3.22%	2,720.20	6,416.22	6,297.05	-1.86%
18		200	90,000	4,095.22	3,974.78	(120.44)	-2.94%	3,497.40	7,592.62	7,472.18	-1.59%
19		200	110,000	4,494.42	4,372.72	(121.71)	-2.71%	4,274.60	8,769.02	8,647.32	-1.39%
20		500	175,000	9,005.56	8,682.49	(323.06)	-3.59%	6,800.50	15,806.06	15,482.99	-2.04%
21		500	225,000	10,003.56	9,677.33	(326.23)	-3.26%	8,743.50	18,747.06	18,420.83	-1.74%
22		500	275,000	11,001.56	10,672.16	(329.39)	-2.99%	10,686.50	21,688.06	21,358.66	-1.52%
23		1,000	350,000	17,854.78	17,191.90	(662.88)	-3.71%	13,601.00	31,455.78	30,792.90	-2.11%
24		1,000	450,000	19,850.78	19,181.57	(669.21)	-3.37%	17,487.00	37,337.78	36,668.57	-1.79%
25		1,000	550,000	21,846.78	21,171.24	(675.54)	-3.09%	21,373.00	43,219.78	42,544.24	-1.56%
26		3,000	1,050,000	52,747.74	50,725.61	(2,022.13)	-3.83%	40,803.00	93,550.74	91,528.61	-2.16%
27		3,000	1,350,000	58,039.08	55,997.96	(2,041.12)	-3.52%	52,461.00	110,500.08	108,458.96	-1.85%
28		3,000	1,650,000	63,330.42	61,270.31	(2,060.11)	-3.25%	64,119.00	127,449.42	125,389.31	-1.62%
29		7,000	2,450,000	120,290.41	115,549.77	(4,740.64)	-3.94%	95,207.00	215,497.41	210,756.77	-2.20%
30		7,000	3,150,000	132,636.87	127,851.92	(4,784.95)	-3.61%	122,409.00	255,045.87	250,260.92	-1.88%
31		7,000	3,850,000	144,983.33	140,154.07	(4,829.26)	-3.33%	149,611.00	294,594.33	289,765.07	-1.64%
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OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Typical Bill Comparison

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5
											Page 137 of 154 % Change (J=E÷H)
1	<b>OP GS-3</b>							<b>0.03809</b>			
2	<b>Subtransmission</b>	10	3,500	853.98	946.14	92.17	10.79%	133.32	987.29	1,079.46	9.34%
3		10	4,500	870.42	962.53	92.10	10.58%	171.41	1,041.83	1,133.93	8.84%
4		10	5,500	886.87	978.91	92.04	10.38%	209.50	1,096.36	1,188.40	8.39%
5		25	8,750	1,013.66	1,122.07	108.40	10.69%	333.29	1,346.95	1,455.35	8.05%
6		25	11,250	1,054.77	1,163.02	108.24	10.26%	428.51	1,483.29	1,591.53	7.30%
7		25	13,750	1,095.89	1,203.97	108.09	9.86%	523.74	1,619.62	1,727.71	6.67%
8		50	17,500	1,278.40	1,413.87	135.46	10.60%	666.58	1,944.98	2,080.44	6.96%
9		50	22,500	1,357.83	1,492.97	135.15	9.95%	857.03	2,214.85	2,350.00	6.10%
10		50	27,500	1,437.25	1,572.08	134.83	9.38%	1,047.48	2,484.72	2,619.56	5.43%
11		75	26,250	1,539.64	1,702.17	162.53	10.56%	999.86	2,539.51	2,702.03	6.40%
12		75	33,750	1,658.78	1,820.83	162.05	9.77%	1,285.54	2,944.32	3,106.37	5.50%
13		75	41,250	1,777.91	1,939.49	161.58	9.09%	1,571.21	3,349.13	3,510.70	4.82%
14		100	35,000	1,800.88	1,990.47	189.59	10.53%	1,333.15	3,134.03	3,323.62	6.05%
15		100	45,000	1,959.73	2,148.68	188.95	9.64%	1,714.05	3,673.78	3,862.73	5.14%
16		100	55,000	2,118.58	2,306.90	188.32	8.89%	2,094.95	4,213.53	4,401.85	4.47%
17		200	70,000	2,845.84	3,143.68	297.83	10.47%	2,666.30	5,512.14	5,809.98	5.40%
18		200	90,000	3,163.54	3,460.10	296.57	9.37%	3,428.10	6,591.64	6,888.20	4.50%
19		200	110,000	3,481.23	3,776.53	295.30	8.48%	4,189.90	7,671.13	7,966.43	3.85%
20		500	175,000	5,980.73	6,603.30	622.57	10.41%	6,665.75	12,646.48	13,269.05	4.92%
21		500	225,000	6,774.96	7,394.36	619.40	9.14%	8,570.25	15,345.21	15,964.61	4.04%
22		500	275,000	7,569.19	8,185.43	616.24	8.14%	10,474.75	18,043.94	18,660.18	3.42%
23		1,000	350,000	11,205.53	12,369.33	1,163.80	10.39%	13,331.50	24,537.03	25,700.83	4.74%
24		1,000	450,000	12,793.99	13,951.46	1,157.47	9.05%	17,140.50	29,934.49	31,091.96	3.87%
25		1,000	550,000	14,382.45	15,533.59	1,151.14	8.00%	20,949.50	35,331.95	36,483.09	3.26%
26		3,000	1,050,000	31,600.84	33,034.94	1,434.10	4.54%	39,994.50	71,595.34	73,029.44	2.00%
27		3,000	1,350,000	35,669.56	37,084.67	1,415.11	3.97%	51,421.50	87,091.06	88,506.17	1.62%
28		3,000	1,650,000	39,738.28	41,134.40	1,396.12	3.51%	62,848.50	102,586.78	103,982.90	1.36%
29		7,000	2,450,000	70,148.20	68,333.68	(1,814.52)	-2.59%	93,320.50	163,468.70	161,654.18	-1.11%
30		7,000	3,150,000	79,641.88	77,783.05	(1,858.83)	-2.33%	119,983.50	199,625.38	197,766.55	-0.93%
31		7,000	3,850,000	89,135.56	87,232.42	(1,903.14)	-2.14%	146,646.50	235,782.06	233,878.92	-0.81%
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**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 138 of 154
											% Change (J=E÷H)
1	<b>OP GS-4</b>							<b>0.03886</b>			
2	<b>Primary</b>	3,000	1,200,000	55,393.41	53,361.78	(2,031.63)	-3.67%	46,632.00	102,025.41	99,993.78	-1.99%
3		3,000	1,500,000	60,684.75	58,634.13	(2,050.62)	-3.38%	58,290.00	118,974.75	116,924.13	-1.72%
4		3,000	1,800,000	65,976.09	63,906.48	(2,069.61)	-3.14%	69,948.00	135,924.09	133,854.48	-1.52%
5		5,000	2,000,000	90,928.53	87,531.31	(3,397.21)	-3.74%	77,720.00	168,648.53	165,251.31	-2.01%
6		5,000	2,500,000	99,747.43	96,318.56	(3,428.86)	-3.44%	97,150.00	196,897.43	193,468.56	-1.74%
7		5,000	3,000,000	108,566.33	105,105.81	(3,460.51)	-3.19%	116,580.00	225,146.33	221,685.81	-1.54%
8		8,000	3,200,000	144,231.20	138,785.62	(5,445.59)	-3.78%	124,352.00	268,583.20	263,137.62	-2.03%
9		8,000	4,000,000	158,341.44	152,845.22	(5,496.23)	-3.47%	155,440.00	313,781.44	308,285.22	-1.75%
10		8,000	4,800,000	172,451.68	166,904.82	(5,546.87)	-3.22%	186,528.00	358,979.68	353,432.82	-1.55%
11		20,000	8,000,000	357,441.91	343,802.82	(13,639.09)	-3.82%	310,880.00	668,321.91	654,682.82	-2.04%
12		20,000	10,000,000	392,717.51	378,951.82	(13,765.69)	-3.51%	388,600.00	781,317.51	767,551.82	-1.76%
13		20,000	12,000,000	427,993.11	414,100.82	(13,892.29)	-3.25%	466,320.00	894,313.11	880,420.82	-1.55%
14		50,000	20,000,000	890,468.69	856,345.83	(34,122.86)	-3.83%	777,200.00	1,667,668.69	1,633,545.83	-2.05%
15		50,000	25,000,000	978,657.69	944,218.33	(34,439.36)	-3.52%	971,500.00	1,950,157.69	1,915,718.33	-1.77%
16		50,000	30,000,000	1,066,846.69	1,032,090.83	(34,755.86)	-3.26%	1,165,800.00	2,232,646.69	2,197,890.83	-1.56%
17		125,000	50,000,000	2,223,035.62	2,137,703.36	(85,332.27)	-3.84%	1,943,000.00	4,166,035.62	4,080,703.36	-2.05%
18		125,000	62,500,000	2,443,508.12	2,357,384.61	(86,123.52)	-3.52%	2,428,750.00	4,872,258.12	4,786,134.61	-1.77%
19		125,000	75,000,000	2,663,980.62	2,577,065.86	(86,914.77)	-3.26%	2,914,500.00	5,578,480.62	5,491,565.86	-1.56%
20											
21	<b>OP GS-4</b>							<b>0.03809</b>			
22	<b>Subtransmission</b>	3,000	1,200,000	33,635.20	35,059.80	1,424.61	4.24%	45,708.00	79,343.20	80,767.80	1.80%
23		3,000	1,500,000	37,703.92	39,109.53	1,405.62	3.73%	57,135.00	94,838.92	96,244.53	1.48%
24		3,000	1,800,000	41,772.64	43,159.26	1,386.63	3.32%	68,562.00	110,334.64	111,721.26	1.26%
25		5,000	2,000,000	54,265.12	54,059.08	(206.03)	-0.38%	76,180.00	130,445.12	130,239.08	-0.16%
26		5,000	2,500,000	61,046.32	60,808.63	(237.68)	-0.39%	95,225.00	156,271.32	156,033.63	-0.15%
27		5,000	3,000,000	67,827.52	67,558.18	(269.33)	-0.40%	114,270.00	182,097.52	181,828.18	-0.15%
28		8,000	3,200,000	85,210.00	82,558.00	(2,651.99)	-3.11%	121,888.00	207,098.00	204,446.00	-1.28%
29		8,000	4,000,000	96,059.92	93,357.28	(2,702.63)	-2.81%	152,360.00	248,419.92	245,717.28	-1.09%
30		8,000	4,800,000	106,909.84	104,156.56	(2,753.27)	-2.58%	182,832.00	289,741.84	286,988.56	-0.95%
31		20,000	8,000,000	208,989.52	196,553.68	(12,435.83)	-5.95%	304,720.00	513,709.52	501,273.68	-2.42%
32		20,000	10,000,000	236,114.32	223,551.88	(12,562.43)	-5.32%	380,900.00	617,014.32	604,451.88	-2.04%
33		20,000	12,000,000	263,239.12	250,550.08	(12,689.03)	-4.82%	457,080.00	720,319.12	707,630.08	-1.76%
34		50,000	20,000,000	518,438.32	481,542.88	(36,895.43)	-7.12%	761,800.00	1,280,238.32	1,243,342.88	-2.88%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 139 of 154
											% Change (J=E÷H)
1	<b>OP GS-4</b>	50,000	25,000,000	586,250.32	549,038.38	(37,211.93)	-6.35%	952,250.00	1,538,500.32	1,501,288.38	-2.42%
2	<b>Subtransmission (cont'd)</b>	50,000	30,000,000	654,062.32	616,533.88	(37,528.43)	-5.74%	1,142,700.00	1,796,762.32	1,759,233.88	-2.09%
3		125,000	50,000,000	1,292,060.32	1,194,015.88	(98,044.43)	-7.59%	1,904,500.00	3,196,560.32	3,098,515.88	-3.07%
4		125,000	62,500,000	1,461,590.32	1,362,754.63	(98,835.68)	-6.76%	2,380,625.00	3,842,215.32	3,743,379.63	-2.57%
5		125,000	75,000,000	1,631,120.32	1,531,493.38	(99,626.93)	-6.11%	2,856,750.00	4,487,870.32	4,388,243.38	-2.22%
6											
7	<b>OP GS-4</b>										
8	<b>Transmission</b>	3,000	1,200,000	33,635.20	35,059.80	1,424.61	4.24%	45,708.00	79,343.20	80,767.80	1.80%
9		3,000	1,500,000	37,703.92	39,109.53	1,405.62	3.73%	57,135.00	94,838.92	96,244.53	1.48%
10		3,000	1,800,000	41,772.64	43,159.26	1,386.63	3.32%	68,562.00	110,334.64	111,721.26	1.26%
11		5,000	2,000,000	54,265.12	54,059.08	(206.03)	-0.38%	76,180.00	130,445.12	130,239.08	-0.16%
12		5,000	2,500,000	61,046.32	60,808.63	(237.68)	-0.39%	95,225.00	156,271.32	156,033.63	-0.15%
13		5,000	3,000,000	67,827.52	67,558.18	(269.33)	-0.40%	114,270.00	182,097.52	181,828.18	-0.15%
14		8,000	3,200,000	85,210.00	82,558.00	(2,651.99)	-3.11%	121,888.00	207,098.00	204,446.00	-1.28%
15		8,000	4,000,000	96,059.92	93,357.28	(2,702.63)	-2.81%	152,360.00	248,419.92	245,717.28	-1.09%
16		8,000	4,800,000	106,909.84	104,156.56	(2,753.27)	-2.58%	182,832.00	289,741.84	286,988.56	-0.95%
17		20,000	8,000,000	208,989.52	196,553.68	(12,435.83)	-5.95%	304,720.00	513,709.52	501,273.68	-2.42%
18		20,000	10,000,000	236,114.32	223,551.88	(12,562.43)	-5.32%	380,900.00	617,014.32	604,451.88	-2.04%
19		20,000	12,000,000	263,239.12	250,550.08	(12,689.03)	-4.82%	457,080.00	720,319.12	707,630.08	-1.76%
20		50,000	20,000,000	518,438.32	481,542.88	(36,895.43)	-7.12%	761,800.00	1,280,238.32	1,243,342.88	-2.88%
21		50,000	25,000,000	586,250.32	549,038.38	(37,211.93)	-6.35%	952,250.00	1,538,500.32	1,501,288.38	-2.42%
22		50,000	30,000,000	654,062.32	616,533.88	(37,528.43)	-5.74%	1,142,700.00	1,796,762.32	1,759,233.88	-2.09%
23		125,000	50,000,000	1,292,060.32	1,194,015.88	(98,044.43)	-7.59%	1,904,500.00	3,196,560.32	3,098,515.88	-3.07%
24		125,000	62,500,000	1,461,590.32	1,362,754.63	(98,835.68)	-6.76%	2,380,625.00	3,842,215.32	3,743,379.63	-2.57%
25		125,000	75,000,000	1,631,120.32	1,531,493.38	(99,626.93)	-6.11%	2,856,750.00	4,487,870.32	4,388,243.38	-2.22%
26											

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Typical Bill Comparison

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 140 of 154 % Change (J=E÷H)
1	<b>OP</b> EHG							<b>0.04026</b>			
2		30	100	184.44	138.79	(45.65)	-24.75%	4.03	188.47	142.81	-24.22%
3		30	500	200.59	152.11	(48.49)	-24.17%	20.13	220.72	172.24	-21.97%
4		30	1,000	220.79	168.76	(52.03)	-23.56%	40.26	261.05	209.02	-19.93%
5		30	3,000	301.10	234.92	(66.18)	-21.98%	120.78	421.88	355.70	-15.69%
6		30	4,500	360.99	284.19	(76.80)	-21.28%	181.17	542.16	465.36	-14.17%
7		30	6,000	420.88	333.46	(87.42)	-20.77%	241.56	662.44	575.02	-13.20%
8		30	9,000	540.66	432.00	(108.66)	-20.10%	362.34	903.00	794.34	-12.03%
9		30	12,000	660.44	530.54	(129.90)	-19.67%	483.12	1,143.56	1,013.66	-11.36%
10		30	15,000	780.22	629.08	(151.14)	-19.37%	603.90	1,384.12	1,232.98	-10.92%
11		30	20,000	977.05	790.51	(186.54)	-19.09%	805.20	1,782.25	1,595.71	-10.47%
12		50	5,000	507.73	498.63	(9.10)	-1.79%	201.30	709.03	699.93	-1.28%
13		50	7,500	607.54	580.74	(26.80)	-4.41%	301.95	909.49	882.69	-2.95%
14		50	10,000	707.36	662.86	(44.50)	-6.29%	402.60	1,109.96	1,065.46	-4.01%
15		50	15,000	906.99	827.09	(79.90)	-8.81%	603.90	1,510.89	1,430.99	-5.29%
16		50	20,000	1,103.83	988.53	(115.30)	-10.45%	805.20	1,909.03	1,793.73	-6.04%
17		50	25,000	1,300.66	1,149.96	(150.70)	-11.59%	1,006.50	2,307.16	2,156.46	-6.53%
18		100	10,000	1,024.29	1,157.90	133.62	13.04%	402.60	1,426.89	1,560.50	9.36%
19		100	15,000	1,223.92	1,322.14	98.22	8.02%	603.90	1,827.82	1,926.04	5.37%
20		100	20,000	1,420.75	1,483.57	62.82	4.42%	805.20	2,225.95	2,288.77	2.82%
21		100	30,000	1,814.42	1,806.44	(7.98)	-0.44%	1,207.80	3,022.22	3,014.24	-0.26%
22		100	40,000	2,208.09	2,129.31	(78.78)	-3.57%	1,610.40	3,818.49	3,739.71	-2.06%
23		200	20,000	2,054.61	2,473.66	419.04	20.40%	805.20	2,859.81	3,278.86	14.65%
24		200	30,000	2,448.28	2,796.52	348.24	14.22%	1,207.80	3,656.08	4,004.32	9.53%
25		200	40,000	2,841.95	3,119.39	277.45	9.76%	1,610.40	4,452.35	4,729.79	6.23%
26		200	60,000	3,629.28	3,765.13	135.85	3.74%	2,415.60	6,044.88	6,180.73	2.25%
27											
28								<b>0.04026</b>			
29	<b>OP</b> EHS	55	15,000	575.12	651.35	76.23	13.25%	603.90	1,179.02	1,255.25	6.47%
30		150	30,000	1,110.77	1,273.42	162.66	14.64%	1,207.80	2,318.57	2,481.22	7.02%
31		225	65,000	2,360.61	2,724.93	364.31	15.43%	2,616.90	4,977.51	5,341.83	7.32%
32											

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 141 of 154
											% Change (J=E÷H)
1	<b>OP SS</b>										
2		10	1,500	135.73	97.13	(38.60)	-28.44%	60.39	196.12	157.52	-19.68%
3		10	3,000	212.60	173.84	(38.76)	-18.23%	120.78	333.38	294.62	-11.63%
4		10	4,500	289.24	250.31	(38.93)	-13.46%	181.17	470.41	431.48	-8.28%
5		20	2,000	161.50	122.85	(38.66)	-23.93%	80.52	242.02	203.37	-15.97%
6		20	4,000	263.70	224.82	(38.87)	-14.74%	161.04	424.74	385.86	-9.15%
7		20	6,000	365.89	326.79	(39.09)	-10.68%	241.56	607.45	568.35	-6.44%
8		40	5,000	314.79	275.81	(38.98)	-12.38%	201.30	516.09	477.11	-7.55%
9		40	7,500	442.53	403.27	(39.26)	-8.87%	301.95	744.48	705.22	-5.27%
10		40	10,000	570.27	530.74	(39.53)	-6.93%	402.60	972.87	933.34	-4.06%
11		50	10,000	570.27	530.74	(39.53)	-6.93%	402.60	972.87	933.34	-4.06%
12		50	15,000	825.75	785.67	(40.08)	-4.85%	603.90	1,429.65	1,389.57	-2.80%
13		50	20,000	1,078.43	1,037.80	(40.62)	-3.77%	805.20	1,883.63	1,843.00	-2.16%
14		100	20,000	1,078.43	1,037.80	(40.62)	-3.77%	805.20	1,883.63	1,843.00	-2.16%
15		100	25,000	1,331.10	1,289.94	(41.17)	-3.09%	1,006.50	2,337.60	2,296.44	-1.76%
16		100	30,000	1,583.78	1,542.07	(41.71)	-2.63%	1,207.80	2,791.58	2,749.87	-1.49%
17		200	40,000	2,089.14	2,046.33	(42.81)	-2.05%	1,610.40	3,699.54	3,656.73	-1.16%
18		200	60,000	3,099.85	3,054.86	(44.99)	-1.45%	2,415.60	5,515.45	5,470.46	-0.82%
19		300	60,000	3,099.85	3,054.86	(44.99)	-1.45%	2,415.60	5,515.45	5,470.46	-0.82%
20		300	80,000	4,110.57	4,063.39	(47.17)	-1.15%	3,220.80	7,331.37	7,284.19	-0.64%
21		400	80,000	4,110.57	4,063.39	(47.17)	-1.15%	3,220.80	7,331.37	7,284.19	-0.64%
22		400	120,000	6,131.99	6,080.45	(51.54)	-0.84%	4,831.20	10,963.19	10,911.65	-0.47%
23											
24	<b>OP OL</b>										
25											
26	Mercury Vapor							<b>0.04026</b>			
27			72	9.82	9.34	(0.47)	-4.81%	2.90	12.72	12.24	-3.72%
28			158	13.76	14.70	0.94	6.82%	6.36	20.12	21.06	4.66%
29											
30	High Pressure Sodium										
31			40	8.19	7.25	(0.94)	-11.45%	1.61	9.80	8.86	-9.57%
32			84	10.39	9.69	(0.70)	-6.78%	3.38	13.78	13.07	-5.12%
33											
34	Incandescent										
35			63	11.97	10.32	(1.65)	-13.79%	2.54	14.51	12.86	-11.38%
36			98	13.45	10.95	(2.50)	-18.58%	3.95	17.40	14.90	-14.37%



**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 142 of 154
											% Change (J=E÷H)
1	<b>OP OL (cont'd)</b>										
2	MV Floodlight										
3			158	16.61	14.70	(1.91)	-11.53%	6.36	22.97	21.06	-8.34%
4			378	22.60	20.05	(2.55)	-11.27%	15.22	37.82	35.27	-6.73%
5											
6	HPS Floodlight										
7			84	10.36	9.69	(0.67)	-6.50%	3.38	13.74	13.07	-4.90%
8			167	12.84	12.90	0.07	0.51%	6.72	19.56	19.63	0.33%
9											
10	MH Floodlight										
11			100	13.00	11.72	(1.28)	-9.84%	4.03	17.03	15.75	-7.52%
12			158	13.16	12.36	(0.80)	-6.06%	6.36	19.52	18.73	-4.08%
13											
14	Post Top-MV										
15			72	16.04	15.27	(0.77)	-4.83%	2.90	18.94	18.16	-4.09%
16											
17	Post Top-HPS										
18			40	14.72	14.25	(0.47)	-3.20%	1.61	16.33	15.86	-2.89%
19											
20	Facilities Charges:										
21	Underground circuit per 25 feet over 30 feet		0	0.86	-	(0.86)	-100.00%	-	0.86	-	-100.00%
22											
23	<b>OP SL</b>										
24	On Wood Pole										
25	7,000 lumen mercury vapor		72	7.06	5.42	(1.64)	-23.26%	2.90	9.96	8.31	-16.49%
26	11,000 lumen mercury vapor		100	8.46	6.11	(2.35)	-27.76%	4.03	12.48	10.14	-18.81%
27	20,000 lumen mercury vapor		158	9.98	9.19	(0.79)	-7.90%	6.36	16.34	15.55	-4.83%
28	50,000 lumen mercury vapor		378	19.75	20.10	0.36	1.80%	15.22	34.97	35.32	1.02%
29	9,000 lumen high pressure sodium		40	5.82	4.89	(0.93)	-16.00%	1.61	7.43	6.50	-12.54%
30	16,000 lumen high pressure sodium		59	6.26	5.33	(0.93)	-14.82%	2.38	8.63	7.71	-10.74%
31	22,000 lumen high pressure sodium		84	7.48	7.23	(0.25)	-3.33%	3.38	10.86	10.61	-2.29%
32	50,000 lumen high pressure sodium		167	9.47	11.75	2.29	24.14%	6.72	16.19	18.48	14.11%
33	9,000 lumen high pressure sodium (post 1		40	14.80	4.89	(9.91)	-66.98%	1.61	16.41	6.50	-60.41%
34	16,000 lumen high pressure sodium (post		59	15.24	5.33	(9.91)	-65.03%	2.38	17.62	7.71	-56.26%
35	22,000 lumen high pressure sodium (post		84	16.48	7.23	(9.25)	-56.12%	3.38	19.86	10.61	-46.57%
36	50,000 lumen high pressure sodium (post		167	18.48	11.75	(6.73)	-36.41%	6.72	25.20	18.48	-26.70%

**OHIO POWER COMPANY**  
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1	OP SL (cont'd)										
2	On Metal Pole:										
3	7,000 lumen mercury vapor		72	12.45	5.42	(7.03)	-56.50%	2.90	15.35	8.31	-45.83%
4	11,000 lumen mercury vapor		100	14.90	6.11	(8.79)	-59.00%	4.03	18.93	10.14	-46.45%
5	20,000 lumen mercury vapor		158	16.91	9.19	(7.72)	-45.65%	6.36	23.27	15.55	-33.17%
6	50,000 lumen mercury vapor		378	27.35	20.10	(7.25)	-26.50%	15.22	42.57	35.32	-17.02%
7	9,000 lumen high pressure sodium		40	13.41	4.89	(8.52)	-63.54%	1.61	15.02	6.50	-56.73%
8	16,000 lumen high pressure sodium		59	13.81	5.33	(8.48)	-61.41%	2.38	16.19	7.71	-52.40%
9	22,000 lumen high pressure sodium		84	15.07	7.23	(7.84)	-52.01%	3.38	18.45	10.61	-42.48%
10	50,000 lumen high pressure sodium		167	17.05	11.75	(5.30)	-31.09%	6.72	23.78	18.48	-22.30%
11	9,000 lumen high pressure sodium (post 1		40	37.13	4.89	(32.24)	-86.83%	1.61	38.74	6.50	-83.22%
12	16,000 lumen high pressure sodium (post		59	37.56	5.33	(32.23)	-85.81%	2.38	39.94	7.71	-80.71%
13	22,000 lumen high pressure sodium (post		84	38.78	7.23	(31.56)	-81.36%	3.38	42.17	10.61	-74.84%
14	50,000 lumen high pressure sodium (post		167	40.79	11.75	(29.04)	-71.19%	6.72	47.51	18.48	-61.11%
15	Multiple Lamps on Metal Pole:										
16	20,000 lumen mercury vapor		158	13.77	9.19	(4.58)	-33.27%	6.36	20.13	15.55	-22.76%
17	9,000 lumen high pressure sodium		40	9.60	4.89	(4.71)	-49.07%	1.61	11.21	6.50	-42.02%
18	16,000 lumen high pressure sodium		59	10.02	5.33	(4.69)	-46.81%	2.38	12.40	7.71	-37.84%
19	22,000 lumen high pressure sodium		84	11.27	7.23	(4.04)	-35.86%	3.38	14.65	10.61	-27.59%
20	50,000 lumen high pressure sodium		167	13.26	11.75	(1.51)	-11.38%	6.72	19.98	18.48	-7.55%
21	9,000 lumen high pressure sodium (post 1		40	21.46	4.89	(16.58)	-77.23%	1.61	23.08	6.50	-71.84%
22	16,000 lumen high pressure sodium (post		59	21.89	5.33	(16.56)	-75.65%	2.38	24.26	7.71	-68.24%
23	22,000 lumen high pressure sodium (post		84	23.14	7.23	(15.91)	-68.76%	3.38	26.52	10.61	-59.99%
24	50,000 lumen high pressure sodium (post		167	25.13	11.75	(13.38)	-53.23%	6.72	31.85	18.48	-41.99%
25											
26	Post Top Unit:										
27	7,000 lumen mercury vapor		72	12.34	8.46	(3.88)	-31.44%	2.90	15.24	11.36	-25.46%
28	9,000 lumen high pressure sodium		40	11.34	8.68	(2.66)	-23.46%	1.61	12.95	10.29	-20.55%
29	9,000 lumen high pressure sodium (post 1		40	13.75	8.68	(5.07)	-36.90%	1.61	15.36	10.29	-33.03%
30											
31	Facilities Charges:										
32	Receptacle Charge		0	2.88	1.87	(1.01)	-35.01%	-	2.88	1.87	-35.01%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

								Annualized Fuel Cost Additions to Bill	Current Total Bill Including Fuel	Proposed Total Bill Including Fuel	Schedule E-5 Page 144 of 154
Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	(G)	(H = C+G)	(I= D+G)	% Change (J=E÷H)
1	CS R-R / R-R-1							0.04026			
2			0 kW	13.02	9.27	(3.75)	-28.77%	-	13.02	9.27	-28.77%
3			30 kW	15.07	11.33	(3.74)	-24.83%	1.21	16.28	12.54	-22.99%
4			70 kW	17.80	14.07	(3.73)	-20.98%	2.82	20.62	16.88	-18.11%
5			120 kW	21.21	17.49	(3.72)	-17.55%	4.83	26.04	22.32	-14.29%
6			200 kW	26.67	22.96	(3.71)	-13.90%	8.05	34.72	31.02	-10.67%
7			300 kW	33.50	29.81	(3.69)	-11.02%	12.08	45.58	41.89	-8.10%
8			500 kW	47.15	43.50	(3.65)	-7.75%	20.13	67.28	63.63	-5.43%
9			800 kW	67.62	64.03	(3.59)	-5.31%	32.21	99.83	96.24	-3.59%
10			1,000 kW	81.27	77.72	(3.55)	-4.37%	40.26	121.53	117.98	-2.92%
11			1,200 kW	94.92	91.41	(3.51)	-3.70%	48.31	143.23	139.72	-2.45%
12			1,500 kW	115.40	111.94	(3.46)	-2.99%	60.39	175.79	172.33	-1.97%
13			2,000 kW	149.52	146.17	(3.35)	-2.24%	80.52	230.04	226.69	-1.46%
14			4,000 kW	285.11	282.14	(2.97)	-1.04%	161.04	446.15	443.18	-0.67%
15			5,000 kW	352.90	350.13	(2.77)	-0.79%	201.30	554.20	551.43	-0.50%
16			8,000 kW	556.27	554.08	(2.19)	-0.39%	322.08	878.35	876.16	-0.25%
17			10,000 kW	691.85	690.06	(1.79)	-0.26%	402.60	1,094.45	1,092.66	-0.16%
18											
19	RS Demand										
20		10	2,500	163.79	156.02	(7.77)	-4.75%	100.65	264.44	256.67	-2.94%
21		10	3,500	205.93	196.49	(9.44)	-4.58%	140.91	346.84	337.40	-2.72%
22		15	3,750	238.71	228.93	(9.78)	-4.10%	150.98	389.69	379.90	-2.51%
23		15	5,250	301.92	289.64	(12.28)	-4.07%	211.37	513.29	501.01	-2.39%
24		20	5,000	313.63	301.84	(11.79)	-3.76%	201.30	514.93	503.14	-2.29%
25		20	7,000	397.91	382.79	(15.12)	-3.80%	281.82	679.73	664.61	-2.22%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 145 of 154
											% Change (J=E÷H)
1	<b>CS</b> RLM										
2	Summer	5	500	49.91	45.56	(4.35)	-8.71%	20.13	70.04	65.69	-6.21%
3		5	1,500	121.19	117.03	(4.16)	-3.43%	60.39	181.58	177.42	-2.29%
4		5	2,500	191.69	187.73	(3.96)	-2.06%	100.65	292.34	288.38	-1.35%
5		10	1,000	85.82	81.57	(4.25)	-4.95%	40.26	126.08	121.83	-3.37%
6		10	3,000	226.83	222.97	(3.86)	-1.70%	120.78	347.61	343.75	-1.11%
7		10	5,000	367.38	363.90	(3.48)	-0.95%	201.30	568.68	565.20	-0.61%
8		20	2,000	156.56	152.50	(4.06)	-2.60%	80.52	237.08	233.02	-1.71%
9		20	6,000	437.65	434.37	(3.28)	-0.75%	241.56	679.21	675.93	-0.48%
10		20	10,000	718.75	716.25	(2.50)	-0.35%	402.60	1,121.35	1,118.85	-0.22%
11		30	3,000	226.83	222.97	(3.86)	-1.70%	120.78	347.61	343.75	-1.11%
12		30	9,000	648.48	645.78	(2.70)	-0.42%	362.34	1,010.82	1,008.12	-0.27%
13		30	15,000	1,070.12	1,068.60	(1.52)	-0.14%	603.90	1,674.02	1,672.50	-0.09%
14		40	4,000	297.10	293.44	(3.66)	-1.23%	161.04	458.14	454.48	-0.80%
15		40	12,000	859.30	857.19	(2.11)	-0.25%	483.12	1,342.42	1,340.31	-0.16%
16		40	20,000	1,418.69	1,418.14	(0.55)	-0.04%	805.20	2,223.89	2,223.34	-0.02%
17		50	5,000	367.38	363.90	(3.48)	-0.95%	201.30	568.68	565.20	-0.61%
18		50	15,000	1,070.12	1,068.60	(1.52)	-0.14%	603.90	1,674.02	1,672.50	-0.09%
19		50	25,000	1,767.27	1,767.69	0.42	0.02%	1,006.50	2,773.77	2,774.19	0.02%
20											
21	<b>CS</b> RLM										
22	Winter	5	500	49.91	45.56	(4.35)	-8.71%	20.13	70.04	65.69	-6.21%
23		5	1,500	118.02	113.86	(4.16)	-3.53%	60.39	178.41	174.25	-2.33%
24		5	2,500	184.73	180.77	(3.96)	-2.14%	100.65	285.38	281.42	-1.39%
25		10	1,000	84.54	80.29	(4.25)	-5.03%	40.26	124.80	120.55	-3.41%
26		10	3,000	217.98	214.12	(3.86)	-1.77%	120.78	338.76	334.90	-1.14%
27		10	5,000	350.96	347.49	(3.47)	-0.99%	201.30	552.26	548.79	-0.63%
28		20	2,000	151.49	147.43	(4.06)	-2.68%	80.52	232.01	227.95	-1.75%
29		20	6,000	417.45	414.17	(3.28)	-0.79%	241.56	659.01	655.73	-0.50%
30		20	10,000	683.41	680.91	(2.50)	-0.37%	402.60	1,086.01	1,083.51	-0.23%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand	Level of Usage	Current Bill	Proposed Bill	Dollar Increase	% Increase	Annualized Fuel Cost Additions to Bill	Current Total Bill Including Fuel	Proposed Total Bill Including Fuel	Schedule E-5 Page 146 of 154 % Change
		(A)	(B)	(C)	(D)	(E=D-C)	(F = E÷C)	(G)	(H = C+G)	(I= D+G)	(J=E÷H)
1	<b>CS</b> RLM	30	3,000	217.98	214.12	(3.86)	-1.77%	120.78	338.76	334.90	-1.14%
2	Winter	30	9,000	616.92	614.22	(2.70)	-0.44%	362.34	979.26	976.56	-0.28%
3		30	15,000	1,015.86	1,014.33	(1.53)	-0.15%	603.90	1,619.76	1,618.23	-0.09%
4		40	4,000	284.47	280.80	(3.67)	-1.29%	161.04	445.51	441.84	-0.82%
5		40	12,000	816.39	814.28	(2.11)	-0.26%	483.12	1,299.51	1,297.40	-0.16%
6		40	20,000	1,345.51	1,344.96	(0.55)	-0.04%	805.20	2,150.71	2,150.16	-0.03%
7		50	5,000	350.96	347.49	(3.47)	-0.99%	201.30	552.26	548.79	-0.63%
8		50	15,000	1,015.86	1,014.33	(1.53)	-0.15%	603.90	1,619.76	1,618.23	-0.09%
9		50	25,000	1,675.15	1,675.58	0.43	0.03%	1,006.50	2,681.65	2,682.08	0.02%
10											
11	<b>CS</b> RS-ES										
12	On Peak		1,000	79.71	74.97	(4.74)	-5.95%	40.26	119.97	115.23	-3.96%
13	Off Peak		2,000	145.20	140.66	(4.54)	-3.13%	80.52	225.72	221.18	-2.01%
14			3,000	210.24	205.89	(4.35)	-2.07%	120.78	331.02	326.67	-1.32%
15			4,000	275.28	271.12	(4.16)	-1.51%	161.04	436.32	432.16	-0.95%
16			5,000	340.31	336.35	(3.96)	-1.16%	201.30	541.61	537.65	-0.73%
17			6,000	405.35	401.58	(3.77)	-0.93%	241.56	646.91	643.14	-0.58%
18			7,000	470.38	466.81	(3.57)	-0.76%	281.82	752.20	748.63	-0.47%
19			8,000	535.42	532.04	(3.38)	-0.63%	322.08	857.50	854.12	-0.39%
20											
21	<b>CS</b> RS-ES										
22	On Peak		1,000	80.32	75.57	(4.75)	-5.91%	40.26	120.58	115.83	-3.94%
23	Off Peak		2,000	146.42	141.87	(4.55)	-3.11%	80.52	226.94	222.39	-2.01%
24			3,000	212.06	207.70	(4.36)	-2.05%	120.78	332.84	328.48	-1.31%
25			4,000	277.70	273.54	(4.16)	-1.50%	161.04	438.74	434.58	-0.95%
26			5,000	343.34	339.38	(3.96)	-1.15%	201.30	544.64	540.68	-0.73%
27			6,000	408.98	405.21	(3.77)	-0.92%	241.56	650.54	646.77	-0.58%
28			7,000	474.62	471.05	(3.57)	-0.75%	281.82	756.44	752.87	-0.47%
29			8,000	540.27	536.89	(3.38)	-0.63%	322.08	862.35	858.97	-0.39%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

											Schedule E-5
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Line No.	Rate Code	Level of Demand	Level of Usage	Current Bill	Proposed Bill	Dollar Increase	% Increase	Annualized Fuel Cost Additions to Bill	Current Total Bill Including Fuel	Proposed Total Bill Including Fuel	% Change
		(A)	(B)	(C)	(D)	(E=D-C)	(F = E÷C)	(G)	(H = C+G)	(I= D+G)	(J=E÷H)
1	CS	RS-ES									
2		On Peak	1,000	81.77	77.03	(4.74)	-5.80%	40.26	122.03	117.29	-3.89%
3		Off Peak	2,000	149.33	144.78	(4.55)	-3.05%	80.52	229.85	225.30	-1.98%
4			3,000	216.42	212.07	(4.35)	-2.01%	120.78	337.20	332.85	-1.29%
5			4,000	283.52	279.36	(4.16)	-1.47%	161.04	444.56	440.40	-0.94%
6			5,000	350.61	346.65	(3.96)	-1.13%	201.30	551.91	547.95	-0.72%
7			6,000	417.71	413.94	(3.77)	-0.90%	241.56	659.27	655.50	-0.57%
8			7,000	484.80	481.23	(3.57)	-0.74%	281.82	766.62	763.05	-0.47%
9			8,000	551.90	548.52	(3.38)	-0.61%	322.08	873.98	870.60	-0.39%
10											
11	CS	GS-1						0.04026			
12		Unmetered	50	20.95	18.44	(2.51)	-11.96%	2.01	22.96	20.46	-10.91%
13			100	23.73	21.05	(2.68)	-11.29%	4.03	27.76	25.08	-9.65%
14			150	26.50	23.66	(2.84)	-10.73%	6.04	32.54	29.70	-8.74%
15			200	29.28	26.26	(3.02)	-10.31%	8.05	37.33	34.31	-8.08%
16			400	40.39	36.69	(3.70)	-9.17%	16.10	56.49	52.79	-6.56%
17			700	57.05	52.32	(4.73)	-8.29%	28.18	85.23	80.50	-5.55%
18			1,000	73.70	67.95	(5.75)	-7.80%	40.26	113.96	108.21	-5.04%
19			1,500	101.47	94.01	(7.46)	-7.35%	60.39	161.86	154.40	-4.61%
20			2,000	129.23	120.07	(9.16)	-7.09%	80.52	209.75	200.59	-4.37%
21			4,000	239.38	223.38	(16.00)	-6.68%	161.04	400.42	384.42	-4.00%
22											
23											
24	CS	GS-1	0	32.98	30.38	(2.60)	-7.89%	8.05	41.03	38.43	-6.34%
25			1	44.09	40.80	(3.29)	-7.46%	16.10	60.19	56.91	-5.46%
26			1	55.19	51.22	(3.97)	-7.18%	24.16	79.35	75.38	-5.00%
27			2	66.30	61.65	(4.65)	-7.02%	32.21	98.51	93.86	-4.72%
28			2	77.40	72.07	(5.33)	-6.89%	40.26	117.66	112.33	-4.53%
29			3	88.51	82.49	(6.02)	-6.80%	48.31	136.82	130.81	-4.40%
30			4	110.72	103.34	(7.38)	-6.67%	64.42	175.14	167.76	-4.21%
31			4	121.83	113.76	(8.07)	-6.62%	72.47	194.30	186.23	-4.15%
32			4	132.93	124.19	(8.74)	-6.58%	80.52	213.45	204.71	-4.10%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 148 of 154
											% Change (J=E÷H)
1	<b>CS GS-1</b>	5	2,400	154.96	144.85	(10.11)	-6.53%	96.62	251.58	241.47	-4.02%
2		7	3,000	188.00	175.84	(12.16)	-6.47%	120.78	308.78	296.62	-3.94%
3		7	3,200	199.02	186.17	(12.85)	-6.46%	128.83	327.85	315.00	-3.92%
4		9	4,000	243.08	227.50	(15.58)	-6.41%	161.04	404.12	388.54	-3.86%
5											
6								<b>0.04026</b>			
7	<b>CS GS-2 Secondary</b>	10	2,500	179.98	156.00	(23.98)	-13.33%	100.65	280.63	256.65	-8.55%
8		10	3,000	190.38	175.32	(15.06)	-7.91%	120.78	311.16	296.10	-4.84%
9		50	12,500	805.81	795.23	(10.58)	-1.31%	503.25	1,309.06	1,298.48	-0.81%
10		50	15,000	857.81	847.07	(10.74)	-1.25%	603.90	1,461.71	1,450.97	-0.73%
11		100	25,000	1,582.50	1,543.90	(38.60)	-2.44%	1,006.50	2,589.00	2,550.40	-1.49%
12		100	30,000	1,683.70	1,644.79	(38.91)	-2.31%	1,207.80	2,891.50	2,852.59	-1.35%
13		250	62,500	3,908.36	3,785.70	(122.66)	-3.14%	2,516.25	6,424.61	6,301.95	-1.91%
14		250	75,000	4,161.37	4,037.93	(123.44)	-2.97%	3,019.50	7,180.87	7,057.43	-1.72%
15		500	125,000	7,784.79	7,522.04	(262.75)	-3.38%	5,032.50	12,817.29	12,554.54	-2.05%
16		500	150,000	8,290.83	8,026.49	(264.34)	-3.19%	6,039.00	14,329.83	14,065.49	-1.84%
17		750	187,500	11,661.23	11,258.38	(402.85)	-3.45%	7,548.75	19,209.98	18,807.13	-2.10%
18		750	225,000	12,420.28	12,015.06	(405.22)	-3.26%	9,058.50	21,478.78	21,073.56	-1.89%
19		1,000	250,000	15,537.66	14,994.72	(542.94)	-3.49%	10,065.00	25,602.66	25,059.72	-2.12%
20		1,000	300,000	16,549.73	16,003.62	(546.11)	-3.30%	12,078.00	28,627.73	28,081.62	-1.91%
21		2,000	500,000	31,043.41	29,940.08	(1,103.33)	-3.55%	20,130.00	51,173.41	50,070.08	-2.16%
22		2,000	600,000	33,067.54	31,957.88	(1,109.66)	-3.36%	24,156.00	57,223.54	56,113.88	-1.94%

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Typical Bill Comparison

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5
											Page 149 of 154 % Change (J=E÷H)
1	<b>CS GS-2</b>							<b>0.03886</b>			
2	<b>Primary</b>	50	5,000	773.16	769.72	(3.44)	-0.45%	194.30	967.46	964.02	-0.36%
3		50	8,750	850.11	846.43	(3.68)	-0.43%	340.03	1,190.14	1,186.46	-0.31%
4		50	12,500	927.06	923.14	(3.92)	-0.42%	485.75	1,412.81	1,408.89	-0.28%
5		100	10,000	1,369.85	1,374.75	4.90	0.36%	388.60	1,758.45	1,763.35	0.28%
6		100	17,500	1,522.35	1,526.78	4.43	0.29%	680.05	2,202.40	2,206.83	0.20%
7		100	25,000	1,672.05	1,676.00	3.95	0.24%	971.50	2,643.55	2,647.50	0.15%
8		250	25,000	3,154.33	3,184.25	29.92	0.95%	971.50	4,125.83	4,155.75	0.73%
9		250	43,750	3,528.58	3,557.31	28.73	0.81%	1,700.13	5,228.71	5,257.43	0.55%
10		250	62,500	3,902.83	3,930.37	27.54	0.71%	2,428.75	6,331.58	6,359.12	0.44%
11		500	50,000	6,123.80	6,195.41	71.61	1.17%	1,943.00	8,066.80	8,138.41	0.89%
12		500	87,500	6,872.30	6,941.53	69.23	1.01%	3,400.25	10,272.55	10,341.78	0.67%
13		500	125,000	7,620.80	7,687.66	66.86	0.88%	4,857.50	12,478.30	12,545.16	0.54%
14		1,000	100,000	12,062.73	12,217.72	154.99	1.28%	3,886.00	15,948.73	16,103.72	0.97%
15		1,000	175,000	13,559.73	13,709.98	150.25	1.11%	6,800.50	20,360.23	20,510.48	0.74%
16		1,000	250,000	15,056.73	15,202.23	145.50	0.97%	9,715.00	24,771.73	24,917.23	0.59%
17		1,500	150,000	18,001.66	18,240.04	238.38	1.32%	5,829.00	23,830.66	24,069.04	1.00%
18		1,500	262,500	20,247.16	20,478.42	231.26	1.14%	10,200.75	30,447.91	30,679.17	0.76%
19		1,500	375,000	22,492.66	22,716.80	224.14	1.00%	14,572.50	37,065.16	37,289.30	0.60%
20		2,000	200,000	23,940.59	24,262.36	321.77	1.34%	7,772.00	31,712.59	32,034.36	1.01%
21		2,000	350,000	26,934.59	27,246.87	312.28	1.16%	13,601.00	40,535.59	40,847.87	0.77%
22		2,000	500,000	29,928.59	30,231.37	302.78	1.01%	19,430.00	49,358.59	49,661.37	0.61%
23		3,000	300,000	35,818.45	36,307.00	488.55	1.36%	11,658.00	47,476.45	47,965.00	1.03%
24		3,000	525,000	40,309.45	40,783.76	474.31	1.18%	20,401.50	60,710.95	61,185.26	0.78%
25		3,000	750,000	44,800.45	45,260.51	460.06	1.03%	29,145.00	73,945.45	74,405.51	0.62%



OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Typical Bill Comparison

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5
											Page 150 of 154 % Change (J=E÷H)
1	<b>CS</b>	GS-3						0.04026			
2		Secondary	50	17,500	908.42	897.52	(10.90)	704.55	1,612.97	1,602.07	-0.68%
3			50	22,500	1,009.62	998.41	(11.21)	905.85	1,915.47	1,904.26	-0.59%
4			50	27,500	1,110.83	1,099.30	(11.53)	1,107.15	2,217.98	2,206.45	-0.52%
5			100	35,000	1,784.91	1,745.68	(39.23)	1,409.10	3,194.01	3,154.78	-1.23%
6			100	45,000	1,987.32	1,947.46	(39.86)	1,811.70	3,799.02	3,759.16	-1.05%
7			100	55,000	2,189.74	2,149.24	(40.50)	2,214.30	4,404.04	4,363.54	-0.92%
8			250	87,500	4,414.39	4,290.15	(124.24)	3,522.75	7,937.14	7,812.90	-1.57%
9			250	112,500	4,920.42	4,794.60	(125.82)	4,529.25	9,449.67	9,323.85	-1.33%
10			250	137,500	5,426.46	5,299.05	(127.41)	5,535.75	10,962.21	10,834.80	-1.16%
11			500	175,000	8,796.86	8,530.94	(265.92)	7,045.50	15,842.36	15,576.44	-1.68%
12			500	225,000	9,808.92	9,539.84	(269.08)	9,058.50	18,867.42	18,598.34	-1.43%
13			500	275,000	10,820.99	10,548.74	(272.25)	11,071.50	21,892.49	21,620.24	-1.24%
14			1,000	350,000	17,561.79	17,012.52	(549.27)	14,091.00	31,652.79	31,103.52	-1.74%
15			1,000	450,000	19,585.92	19,030.32	(555.60)	18,117.00	37,702.92	37,147.32	-1.47%
16			1,000	550,000	21,610.05	21,048.12	(561.93)	22,143.00	43,753.05	43,191.12	-1.28%
17			2,000	700,000	35,091.67	33,975.68	(1,115.99)	28,182.00	63,273.67	62,157.68	-1.76%
18			2,000	900,000	38,984.34	37,855.69	(1,128.65)	36,234.00	75,218.34	74,089.69	-1.50%
19			2,000	1,100,000	42,568.16	41,426.85	(1,141.31)	44,286.00	86,854.16	85,712.85	-1.31%
20			3,000	1,050,000	52,117.62	50,434.92	(1,682.70)	42,273.00	94,390.62	92,707.92	-1.78%
21			3,000	1,350,000	57,493.35	55,791.66	(1,701.69)	54,351.00	111,844.35	110,142.66	-1.52%
22			3,000	1,650,000	62,869.08	61,148.40	(1,720.68)	66,429.00	129,298.08	127,577.40	-1.33%
23			4,500	1,575,000	77,193.27	74,660.50	(2,532.77)	63,409.50	140,602.77	138,070.00	-1.80%
24			4,500	2,025,000	85,256.87	82,695.61	(2,561.26)	81,526.50	166,783.37	164,222.11	-1.54%
25			4,500	2,475,000	93,320.46	90,730.72	(2,589.74)	99,643.50	192,963.96	190,374.22	-1.34%

OHIO POWER COMPANY  
Case No. 20-585-EL-AIR  
Typical Bill Comparison

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 151 of 154 % Change (J=E÷H)
1	<b>CS</b> GS-3							<b>0.03886</b>			
2	Primary	50	17,500	1,028.26	1,024.03	(4.23)	-0.41%	680.05	1,708.31	1,704.08	-0.25%
3		50	22,500	1,128.06	1,123.51	(4.55)	-0.40%	874.35	2,002.41	1,997.86	-0.23%
4		50	27,500	1,227.86	1,222.99	(4.87)	-0.40%	1,068.65	2,296.51	2,291.64	-0.21%
5		100	35,000	1,871.65	1,874.97	3.32	0.18%	1,360.10	3,231.75	3,235.07	0.10%
6		100	45,000	2,071.25	2,073.94	2.69	0.13%	1,748.70	3,819.95	3,822.64	0.07%
7		100	55,000	2,270.85	2,272.90	2.05	0.09%	2,137.30	4,408.15	4,410.20	0.05%
8		250	87,500	4,401.83	4,427.79	25.96	0.59%	3,400.25	7,802.08	7,828.04	0.33%
9		250	112,500	4,900.83	4,925.21	24.38	0.50%	4,371.75	9,272.58	9,296.96	0.26%
10		250	137,500	5,399.83	5,422.63	22.80	0.42%	5,343.25	10,743.08	10,765.88	0.21%
11		500	175,000	8,618.80	8,682.49	63.69	0.74%	6,800.50	15,419.30	15,482.99	0.41%
12		500	225,000	9,616.80	9,677.33	60.53	0.63%	8,743.50	18,360.30	18,420.83	0.33%
13		500	275,000	10,614.80	10,672.16	57.36	0.54%	10,686.50	21,301.30	21,358.66	0.27%
14		1,000	350,000	17,052.73	17,191.90	139.17	0.82%	13,601.00	30,653.73	30,792.90	0.45%
15		1,000	450,000	19,048.73	19,181.57	132.84	0.70%	17,487.00	36,535.73	36,668.57	0.36%
16		1,000	550,000	21,044.73	21,171.24	126.51	0.60%	21,373.00	42,417.73	42,544.24	0.30%
17		2,000	700,000	33,920.59	34,210.71	290.12	0.86%	27,202.00	61,122.59	61,412.71	0.47%
18		2,000	900,000	37,757.00	38,034.46	277.46	0.73%	34,974.00	72,731.00	73,008.46	0.38%
19		2,000	1,100,000	41,284.56	41,549.36	264.80	0.64%	42,746.00	84,030.56	84,295.36	0.32%
20		4,000	1,400,000	66,339.62	66,931.65	592.03	0.89%	54,404.00	120,743.62	121,335.65	0.49%
21		4,000	1,800,000	73,394.74	73,961.45	566.71	0.77%	69,948.00	143,342.74	143,909.45	0.40%
22		4,000	2,200,000	80,449.86	80,991.25	541.39	0.67%	85,492.00	165,941.86	166,483.25	0.33%
23		8,000	2,800,000	130,559.98	131,755.82	1,195.84	0.92%	108,808.00	239,367.98	240,563.82	0.50%
24		8,000	3,600,000	144,670.22	145,815.42	1,145.20	0.79%	139,896.00	284,566.22	285,711.42	0.40%
25		8,000	4,400,000	158,780.46	159,875.02	1,094.56	0.69%	170,984.00	329,764.46	330,859.02	0.33%
26		10,000	3,500,000	162,670.16	164,167.90	1,497.74	0.92%	136,010.00	298,680.16	300,177.90	0.50%
27		10,000	4,500,000	180,307.96	181,742.40	1,434.44	0.80%	174,870.00	355,177.96	356,612.40	0.40%
28		10,000	5,500,000	197,945.76	199,316.90	1,371.14	0.69%	213,730.00	411,675.76	413,046.90	0.33%
								<b>0.03809</b>			

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 152 of 154
											% Change (J=E÷H)
1	<b>CS GS-4</b>	3,000	600,000	25,745.52	26,419.27	673.75	2.62%	22,854.00	48,599.52	49,273.27	1.39%
2		3,000	1,200,000	34,424.03	35,059.80	635.77	1.85%	45,708.00	80,132.03	80,767.80	0.79%
3		3,000	1,800,000	42,561.47	43,159.26	597.79	1.40%	68,562.00	111,123.47	111,721.26	0.54%
4		5,000	1,000,000	41,491.55	40,559.98	(931.57)	-2.25%	38,090.00	79,581.55	78,649.98	-1.17%
5		5,000	2,000,000	55,053.95	54,059.08	(994.87)	-1.81%	76,180.00	131,233.95	130,239.08	-0.76%
6		5,000	3,000,000	68,616.35	67,558.18	(1,058.17)	-1.54%	114,270.00	182,886.35	181,828.18	-0.58%
7		8,000	1,600,000	64,298.99	60,959.44	(3,339.55)	-5.19%	60,944.00	125,242.99	121,903.44	-2.67%
8		8,000	3,200,000	85,998.83	82,558.00	(3,440.83)	-4.00%	121,888.00	207,886.83	204,446.00	-1.66%
9		8,000	4,800,000	107,698.67	104,156.56	(3,542.11)	-3.29%	182,832.00	290,530.67	286,988.56	-1.22%
10		10,000	2,000,000	79,503.95	74,559.08	(4,944.87)	-6.22%	76,180.00	155,683.95	150,739.08	-3.18%
11		10,000	4,000,000	106,628.75	101,557.28	(5,071.47)	-4.76%	152,360.00	258,988.75	253,917.28	-1.96%
12		10,000	6,000,000	133,753.55	128,555.48	(5,198.07)	-3.89%	228,540.00	362,293.55	357,095.48	-1.43%
13		15,000	3,000,000	117,516.35	108,558.18	(8,958.17)	-7.62%	114,270.00	231,786.35	222,828.18	-3.86%
14		15,000	6,000,000	158,203.55	149,055.48	(9,148.07)	-5.78%	228,540.00	386,743.55	377,595.48	-2.37%
15		15,000	9,000,000	198,890.75	189,552.78	(9,337.97)	-4.70%	342,810.00	541,700.75	532,362.78	-1.72%
16		20,000	4,000,000	155,528.75	142,557.28	(12,971.47)	-8.34%	152,360.00	307,888.75	294,917.28	-4.21%
17		20,000	8,000,000	209,778.35	196,553.68	(13,224.67)	-6.30%	304,720.00	514,498.35	501,273.68	-2.57%
18		20,000	12,000,000	264,027.95	250,550.08	(13,477.87)	-5.10%	457,080.00	721,107.95	707,630.08	-1.87%
19		30,000	6,000,000	231,553.55	210,555.48	(20,998.07)	-9.07%	228,540.00	460,093.55	439,095.48	-4.56%
20		30,000	12,000,000	312,927.95	291,550.08	(21,377.87)	-6.83%	457,080.00	770,007.95	748,630.08	-2.78%
21		30,000	18,000,000	394,302.35	372,544.68	(21,757.67)	-5.52%	685,620.00	1,079,922.35	1,058,164.68	-2.01%
22											
23	<b>CS AL</b>										
24								<b>0.04026</b>			
25			Mercury Vapor								
26			43	10.03	8.54	(1.49)	-14.83%	1.73	11.76	10.27	-12.64%
27			72	11.29	9.34	(1.95)	-17.24%	2.90	14.19	12.24	-13.72%
28			158	17.52	14.70	(2.82)	-16.12%	6.36	23.88	21.06	-11.83%
29			72	19.94	15.27	(4.67)	-23.44%	2.90	22.84	18.16	-20.47%
30											
31			High Pressure Sodium								
32			40	9.02	7.25	(1.77)	-19.64%	1.61	10.63	8.86	-16.66%
33			59	10.02	8.58	(1.44)	-14.34%	2.38	12.40	10.96	-11.59%
34			84	12.39	9.69	(2.70)	-21.80%	3.38	15.77	13.07	-17.12%
			103	13.06	10.03	(3.03)	-23.18%	4.15	17.21	14.18	-17.60%

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
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											% Change (J=E÷H)	
1	<b>CS</b> AL		167	16.68	12.90	(3.78)	-22.64%	6.72	23.40	19.63	-16.14%	
2			40	18.49	14.25	(4.24)	-22.92%	1.61	20.10	15.86	-21.08%	
3			59	19.50	16.55	(2.95)	-15.13%	2.38	21.88	18.92	-13.49%	
4			40	13.85	7.25	(6.60)	-47.66%	1.61	15.46	8.86	-42.70%	
5			103	19.63	10.03	(9.60)	-48.89%	4.15	23.78	14.18	-40.37%	
6			167	22.79	12.90	(9.89)	-43.38%	6.72	29.51	19.63	-33.50%	
7												
8	FLOODLIGHT High Pressure Sodium											
9												
10			40	9.61	7.25	(2.36)	-24.57%	1.61	11.22	8.86	-21.04%	
11			103	13.36	10.03	(3.33)	-24.91%	4.15	17.51	14.18	-19.01%	
12			167	16.37	12.90	(3.47)	-21.18%	6.72	23.09	19.63	-15.01%	
13			378	24.94	22.02	(2.92)	-11.72%	15.22	40.16	37.24	-7.28%	
14												
15	Metal Halide											
16			100	14.92	11.72	(3.20)	-21.42%	4.03	18.95	15.75	-16.87%	
17			158	17.14	12.36	(4.78)	-27.86%	6.36	23.50	18.73	-20.32%	
18			378	24.86	21.95	(2.91)	-11.71%	15.22	40.08	37.17	-7.26%	
19												
20	FACILITY CHARGES Mast Arm											
21												
22			0	0.89	-	(0.89)	-100.00%	-	0.89	-	-100.00%	
23			0	1.57	-	(1.57)	-100.00%	-	1.57	-	-100.00%	
24			0	2.09	-	(2.09)	-100.00%	-	2.09	-	-100.00%	
25			0	3.65	-	(3.65)	-100.00%	-	3.65	-	-100.00%	
26												
27	Poles											
28			0	3.43	-	(3.43)	-100.00%	-	3.43	-	-100.00%	
29			0	18.80	-	(18.80)	-100.00%	-	18.80	-	-100.00%	
30			0	28.03	-	(28.03)	-100.00%	-	28.03	-	-100.00%	
31												
32	Each additional 150 foot overhead wire spar		0	1.11	-	(1.11)	-100.00%	-	1.11	-	-100.00%	
33			0	5.52	-	(5.52)	-100.00%	-	5.52	-	-100.00%	
34			0	1.65	-	(1.65)	-100.00%	-	1.65	-	-100.00%	

**OHIO POWER COMPANY**  
**Case No. 20-585-EL-AIR**  
**Typical Bill Comparison**

Line No.	Rate Code	Level of Demand (A)	Level of Usage (B)	Current Bill (C)	Proposed Bill (D)	Dollar Increase (E=D-C)	% Increase (F = E÷C)	Annualized Fuel Cost Additions to Bill (G)	Current Total Bill Including Fuel (H = C+G)	Proposed Total Bill Including Fuel (I= D+G)	Schedule E-5 Page 154 of 154 % Change (J=E÷H)
1	<b>CS SL</b>										
2	High Pressure Sodium										
3			40	11.02	4.89	(6.13)	-55.64%	1.61	12.63	6.50	-48.55%
4			59	12.76	5.33	(7.43)	-58.23%	2.38	15.14	7.71	-49.09%
5			84	16.56	7.23	(9.33)	-56.34%	3.38	19.94	10.61	-46.79%
6			103	18.45	12.27	(6.18)	-33.47%	4.15	22.60	16.42	-27.33%
7			167	21.71	11.75	(9.96)	-45.87%	6.72	28.43	18.48	-35.02%
8			40	15.51	4.89	(10.62)	-68.48%	1.61	17.12	6.50	-62.04%
9			103	25.60	12.27	(13.33)	-52.05%	4.15	29.75	16.42	-44.80%
10			167	33.34	11.75	(21.59)	-64.75%	6.72	40.06	18.48	-53.88%
11											
12	Mercury Vapor										
13			43	10.18	6.88	(3.30)	-32.45%	1.73	11.91	8.61	-27.74%
14			72	12.11	5.42	(6.69)	-55.28%	2.90	15.01	8.31	-44.60%
15			158	20.37	9.19	(11.18)	-54.89%	6.36	26.73	15.55	-41.82%
16											
17	FACILITY CHARGES										
18	Mast Arm										
19			0	1.57	-	(1.57)	-100.00%	-	1.57	-	-100.00%
20			0	2.09	-	(2.09)	-100.00%	-	2.09	-	-100.00%
21			0	3.65	-	(3.65)	-100.00%	-	3.65	-	-100.00%
22											
23	Poles										
24			0	1.79	-	(1.79)	-100.00%	-	1.79	-	-100.00%
25			0	18.56	-	(18.56)	-100.00%	-	18.56	-	-100.00%
26			0	27.67	-	(27.67)	-100.00%	-	27.67	-	-100.00%
27											
28	Each additional 150 foot overhead wire spar		0	1.05	-	(1.05)	-100.00%	-	1.05	-	-100.00%
29	Each additional riser pole connection		0	5.36	-	(5.36)	-100.00%	-	5.36	-	-100.00%
30	Each underground lateral not over 50 feet		0	1.71	-	(1.71)	-100.00%	-	1.71	-	-100.00%

**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

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**in**

**Case No(s). 20-0585-EL-AIR, 20-0586-EL-ATA, 20-0587-EL-AAM**

Summary: Staff Report Filed - Staff's corrected Staff Report replacing the Staff Report issued on November 18, 2020 regarding Ohio Power Company, for an Increase in Electric Distribution Rates electronically filed by Zee Molter on behalf of PUCO Staff