

July 31, 2018

Via eTariff Filing

Ms. Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington, DC 20426

> PJM Interconnection, L.L.C. and Buckeye Power, Inc. Re: Docket No. ER18-2110-000 *Network Integration Transmission Service Agreement – Calculation of* Transmission Credits under Section 30.9 of PJM Open Access Transmission Tariff

Dear Ms. Bose:

Pursuant to Section 205 of the Federal Power Act ("FPA")¹ and Section 35.13 of the regulations of the Federal Energy Regulatory Commission ("Commission"),² PJM Interconnection, L.L.C. ("PJM") and Buckeye Power, Inc. ("Buckeye") hereby tender for filing a fully executed Network Integration Transmission Service Agreement ("NITSA") between PJM and Buckeye dated July 31, 2018. The NITSA, designated as PJM Second Revised Service Agreement No. 4753, replaces the existing PJM First Revised Service Agreement No. 4753.³ The NITSA contains certain terms and conditions that do not conform to the standard form of service agreement for Network Integration Transmission Service set forth in Attachment F to PJM's Open Access Transmission Tariff ("Tariff" or "OATT").

This filing is made jointly by PJM and Buckeye in order to provide for transmission credits for customer-owned facilities located in the American Electric Power, Inc. ("AEP") Zone of the PJM-operated transmission system, as provided for in Section 30.9 of PJM's Tariff. Specifically, Buckeye seeks to include in the NITSA revisions to implement the receipt of Section 30.9 credits for Buckeye's minority ownership interest in certain transmission project facilities (hereafter, the "Transmission Projects"; singular, "Transmission Project") to be planned, constructed, operated and maintained by AEP Ohio Transmission Company ("AEPOHTCo"), an AEP subsidiary. The credits will be computed through a formula rate

¹ 16 USC § 824d.

² 18 CFR § 35.13 (2017).

³ The Commission accepted PJM First Revised Service Agreement No. 4753 by letter order dated January 3, 2018, in Docket No. ER18-254-000.

mechanism (hereafter the "Formula Rate" or "Formula Rate Template") for calculating and specifying Buckeye's annual transmission revenue requirement in the Transmission Projects.

PJM is submitting the NITSA in accordance with Section 29.5 of the PJM Tariff.⁴ The remainder of this filing, detailing the support for Buckeye's request for transmission credits and the Formula Rate, has been prepared by Buckeye. Although Buckeye is an electric cooperative that receives financing from the Rural Utilities Service and, as such, is not subject to the Commission's jurisdiction under subchapter II of the FPA,⁵ Buckeye recognizes that its transmission revenue requirements proposed for inclusion in rates charged by PJM under its Tariff are subject to Commission review under Section 205 of the FPA.⁶

PJM and Buckeye request that the NITSA be made effective on October 1, 2018.

I. BACKGROUND

A. <u>Description of Buckeye</u>

Buckeye is an Ohio non-profit corporation and a generation and transmission cooperative with its principal place of business located at 6677 Busch Boulevard, Columbus, Ohio 43229. Buckeye produces, procures, and provides at wholesale all of the electric capacity and energy required by its 25 member electric distribution cooperatives operating in Ohio. Those member cooperatives serve more than 380,000 residential, commercial, and industrial customers in service territories encompassing 77 of Ohio's 88 counties. Buckeye and its affiliates own or control power generation resources with nameplate capacity totaling approximately 2,600 megawatts ("MW"). Buckeye is also a participant in PJM markets.

B. Buckeye's Acquisition of Minority Interests in Transmission Facilities

Historically, Buckeye has owned no transmission facilities and, along with its members, has depended entirely upon PJM for open-access transmission service to transmit electric capacity and energy from Buckeye's generation resources to its members' delivery points.

As discussed in the attached Prepared Direct Testimony of Craig Grooms,⁷ Buckeye's Vice President, Engineering and Operations, about 65% of Buckeye's member load is served by 17 of Buckeye's members at 204 transmission delivery points that are dependent on the transmission facilities of AEPOHTCo for network integration transmission service. In view of this heavy use of AEPOHTCo's facilities, Buckeye has concluded that it will best serve the

⁴ Section 29.5 of the PJM Tariff provides as follows: "The Transmission Provider will file Service Agreements with the Commission in compliance with applicable Commission regulations."

⁵ See 16 USC § 824(f).

⁶ See Southwest Power Pool, Inc., 153 FERC ¶ 61,366 at P 37 (2015).

⁷ Exhibit No. BPI-1, included as Attachment 4.

interests of its members with load in the AEP Zone for Buckeye to participate selectively in the financing of, and thereby acquire minority ownership interests in, new AEPOHTCo-developed transmission facilities that benefit the grid and improve reliability in the mostly rural areas of the AEP Zone where such Buckeye load is located.

Mr. Grooms explains that Buckeye now has the option to acquire a minority ownership share of up to 40% in certain transmission facilities to be planned, constructed, operated and maintained by AEPOHTCo. AEPOHTCo will also provide compliance services for these project facilities. As discussed more fully below and in the accompanying testimony of Dennis W. Bethel, President of Bethel Electric Rate Consulting, LLC, *see infra* at n.14, Buckeye proposes to recover its revenue requirement in the Transmission Projects (*i.e.*, those project facilities in which Buckeye commits to own jointly with AEPOHTCo) under PJM's zonal license plate rate design through Section 30.9 of the PJM OATT using the Formula Rate,⁸ which is modeled on the transmission formula rate used by AEPOHTCo (and other AEP Companies) that the Commission authorized in Docket Nos. ER17-405-000 and ER17-406-000, *et al.* Mr. Grooms emphasizes that Buckeye has no plans to own any transmission facilities other than the transmission facilities it describes in this filing.⁹

The transmission project facilities are situated where Buckeye's member electric distribution cooperatives are located and are part of the integrated AEP transmission system. The projects will be comparable to other facilities wholly-owned by AEPOHTCo that are integrated with the AEP system. Mr. Grooms explains that once an in-service date for each project is identified, AEP will provide notice to Buckeye, which will have the option to acquire up to a 40% minority ownership share of the facilities at the same time those facilities are placed in service. Notably, however, AEPOHTCo will proceed with the various transmission facility projects on its own even if Buckeye elects not to participate as a minority owner.

AEPOHTCo will follow the established PJM processes, practices and criteria within PJM for the planning, review, construction and operation of potential Transmission Projects as AEPOHTCo uses for all other projects. Hence, explains Mr. Grooms, there will be no difference in the evaluation, planning, vetting, development, construction and operation of the Transmission Projects and those transmission facility projects that AEPOHTCo, or any other Transmission Owner in PJM, might undertake on their own.

⁸ Buckeye's cost recovery of its revenue requirement in Transmission Projects will be made pursuant to the provisions of "Attachment 2 to the Specifications for Network Integration Transmission Service" to the NITSA tendered with the instant filing.

⁹ Buckeye notes that the facilities whose cost Buckeye is proposing to recover under this filing through Section 30.9 of the PJM OATT in many important respects are unlike the facilities the Commission authorized for cost recovery in Docket No. ER18-254-000. That proceeding involved cost recovery under Section 30.9 of the PJM OATT for existing 69 kV transmission facilities that had been planned in coordination with AEP and are integrated in the AEP Zone, but were constructed and are owned and operated by a Buckeye member cooperative, South Central Power Company ("SCP"). Another significant difference exists in the cost recovery method that will be applicable to the Transmission Project facilities. Unlike the Formula Rate proposed herein, the revenue requirement for the SCP transmission facilities are calculated using a levelized annual revenue requirement methodology that provides for fixed-rate cost recovery until and unless a different revenue requirement is approved pursuant to a filing with the Commission.

Mr. Grooms discusses one such project that has made its way through the PJM transmission planning process that AEPOHTCo is currently constructing, with an expected inservice date of November 1, 2018 (Mt. Sterling – Zanesville 69kV Circuit, PJM Upgrade ID: S1514.1 ("Mt. Sterling – Zanesville")). Buckeye has already provided notice to AEPOHTCo that it intends to participate in that project as a 40% minority owner.

Approval of Buckeye's proposal for Transmission Projects, according to Mr. Grooms, will provide a number of benefits. These include:

- furthering the development of integrated transmission project facilities that will enhance the AEP transmission system and provide greater reliability in rural areas of Ohio served by electric distribution cooperatives;
- eliminating the need for Buckeye to develop duplicate transmission facilities on its own in the AEP Zone of PJM; and
- providing cost savings for customers because the total revenue requirements of both AEPOHTCo and Buckeye for Transmission Projects are expected to be lower than would otherwise be the case if each of these projects were owned exclusively by AEPOHTCo.¹⁰

The qualification of Buckeye's Transmission Project revenue requirements for credits under Section 30.9 and the Formula Rate mechanism for calculating the credits, are addressed, in turn, below.

II. PROPOSED CHANGES TO THE NITSA

A. Eligibility of Buckeye's Transmission Revenue Requirements for Transmission Credits Under PJM Tariff Section 30.9

Section 30.9 of the PJM Tariff provides as follows::

30.9 Network Customer Owned Transmission Facilities:

The Network Customer that owns existing transmission facilities that are integrated with the Transmission Provider's Transmission System may be eligible to receive consideration either through a billing credit or some other mechanism. In order to receive such consideration the Network Customer must demonstrate that its transmission facilities are integrated into the plans or operations of the Transmission Provider to serve its power and transmission customers. For

¹⁰ According to Mr. Bethel in his testimony, these cost savings can be expected because Buckeye has a lower weighted average cost of capital than does AEPOHTCo due to a higher percentage of long-term debt, and because Buckeye is exempt from state and federal income tax liability.

facilities added by the Network Customer subsequent to the [effective date of a Final Rule in RM05-25-000], the Network Customer shall receive credit for such transmission facilities added if such facilities are integrated into the operations of the Transmission Provider's facilities. Calculation of any credit under this subsection shall be addressed in either the Network Customer's Service Agreement or any other agreement between the Parties.

In the Order No. 890 series,¹¹ the Commission established a test for determining whether a network transmission customer is eligible to receive credits for new facilities, whereby:

a network customer shall receive credit for transmission facilities added subsequent to the effective date of the Final Rule if such facilities are integrated into the operations of the transmission provider's facilities; provided however, the customer's transmission facilities shall be presumed to be integrated if the transmission facilities, if owned by the transmission provider, would be eligible for inclusion in the transmission provider's annual transmission revenue requirement as specified in Attachment H of the pro forma OATT.¹²

The effective date of the Final Rule in Docket No. RM05-25-000 – *i.e.*, Order No. 890 – is July 13, 2007.

The Commission further clarified that "[i]n light of the planning-related reforms implemented in Order No. 890, the Commission determined it is now appropriate to grant the same presumption of integration to new customer-owned facilities that are similar in scope and design to those transmission provider facilities that are in rates."¹³

The presumption of integration is plainly applicable to Buckeye's minority ownership interest in Transmission Projects. As noted above, the Transmission Projects developed by AEPOHTCo in which Buckeye is entitled to acquire an interest will all be vetted by AEPOHTCo through the PJM planning process and will thus be certified as integral parts of the interstate grid that support grid reliability of service. Significantly, AEPOHTCo will proceed with the various transmission facility projects on its own even if Buckeye elects not to participate as a minority owner. Thus, not only will the facilities in which Buckeye acquires an ownership interest be "facilities that are similar in scope and design to those transmission provider facilities that are in rates," they will be the <u>same</u> facilities as those in the transmission provider's rates.

¹¹ Preventing Undue Discrimination and Preference in Transmission Service, Order No. 890, FERC Stats. & Regs. ¶ 31,241; order on reh'g, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261 (2007); order on reh'g, Order No. 890-B, 123 FERC ¶ 61,299 (2008); order on reh'g, Order No. 890-C, 126 FERC ¶ 61,228 (2009).

¹² Order No. 890 at P 753.

¹³ Order No. 890-B at P 63.

B. <u>Calculating Buckeye's Section 30.9 Credits Through the Formula Rate</u>

Buckeye proposes to recover its revenue requirement in Transmission Projects under PJM's zonal license plate rate design through Section 30.9 of the PJM OATT. Because Buckeye is a PJM network integration transmission service customer in the AEP Zone, it is appropriate to use Section 30.9 of the PJM OATT as the mechanism for Buckeye to receive credits for these transmission facilities in which it becomes a minority owner.

As discussed in the attached Prepared Direct Testimony of Dennis W. Bethel, ¹⁴ the Formula Rate will only compute revenue requirements for Transmission Projects and has been modeled on the transmission formula rate used by AEPOHTCo (and other AEP affiliates) to calculate the revenue requirements for AEPOHTCo's transmission investments, including its majority share in potential Transmission Projects. The AEPOHTCo transmission formula rate, at Line No. 3 of page 1 of the "TCOS" section and Note "X", provides for AEPOHTCo to include "Facility Credits under PJM OATT Section 30.9" in its transmission revenue requirement.¹⁵

Mechanics of the Proposed Formula Rate

The Formula Rate Template proposed by Buckeye is an Excel spreadsheet model that is populated with projected costs each October to determine the estimated revenue requirement that will be collected beginning January 1 of the following calendar year. The Formula Rate will also be populated each May with actual costs for the prior year. The difference between actual costs and revenues collected using projected rates will then be trued-up with interest in the next calendar year.

Buckeye will populate the Formula Rate with estimated cost information to produce a projected transmission revenue requirement ("PTRR") each year in October prior to the PJM website posting of AEPOHTCo's PTRR for the up-coming calendar rate year. Then, Buckeye will provide this populated Formula Rate to AEPOHTCo so that the charges PJM will make under Section 30.9 to AEPOHTCo will be concurrently recovered by AEPOHTCo in AEP Zone network integration transmission service charges collected by PJM.

¹⁴ Exhibit No. BPI-2, with attached Exhibit Nos. BPI-3, BPI-4, and BPI-5, included together as Attachment 5.

¹⁵ Mr. Grooms explains in his testimony that Transmission Projects will be planned by AEP and are "generally situated in the rural areas of Ohio where Buckeye's member electric distribution cooperatives are located" and that the costs will be recovered from network integration transmission service customers with load in PJM's AEP Zone. Buckeye's proposed Formula Rate, however, also provides for the possibility that PJM could determine that the costs of a Transmission Project should be recovered under Schedule 12 of the PJM OATT and Mr. Bethel describes in his testimony the Buckeye mechanism for Formula Rate recovery under Schedule 12. This situation is highly unlikely to occur because the cost of contemplated projects in rural Ohio areas would typically have to be recovered by PJM through network integration transmission service charges for load in the AEP Zone, and not under Schedule 12 of the PJM OATT.

The Buckeye PTRR computed each October will reflect the investments in Transmission Projects that Buckeye has made or has committed to make that are in-service or are projected to enter service during the following rate year. Other cost inputs to the PTRR will be estimated.

Each May, following a PTRR update, Buckeye will calculate its actual transmission revenue requirements ("ATRR") for the previous year and provide the update to AEPOHTCo prior to its required PJM ATRR posting. Buckeye will compare the ATRR to Section 30.9 revenues (*i.e.*, the PTRR amounts) it received from PJM during the same previous calendar year to determine the amount of under- or over-collection and interest that will need to be combined with the next PTRR ("True-up Adjustment"). The True-up Adjustment interest will be computed from the month the corresponding PTRR was first effective through the end of the next calendar rate year, following the similar adjustment AEPOHTCo will be making. The interest rate used in the computation will be the average monthly FERC refund interest rate (*i.e.*, the interest rate determined pursuant to 18 C.F.R. § 35.19a) for the twenty months from the beginning of the rate year being trued-up through August 31 of the following year – the same interest rate AEPOHTCo will use.

AEPOHTCo will be the majority owner of every Transmission Project that Buckeye will include in its annual updates. Interested Parties will be able to examine and verify the appropriateness of all Transmission Project costs and O&M expenses allocated by AEPOHTCo to Buckeye for its ownership share in each of the projects. To this end, Buckeye commits that upon request from AEPOHTCo, Buckeye will cooperate with AEPOHTCo and provide such information to support Buckeye's costs as may reasonably be needed to respond to an inquiry in AEPOHTCo's annual reviews that involve Buckeye costs for the Transmission Projects, including Buckeye administrative and other costs.

Buckeye is not a Major electric utility and is otherwise not required to file a FERC Form No. 1-Electric Utility Annual Report under the Commission's regulations. Nevertheless, explains Mr. Bethel, each year as part of its ATRR annual update, Buckeye proposes to prepare and provide to interested parties an "informational" version of the FERC Form No. 1 ("FF-1") containing the applicable investment, expense and other financial information that will be used to populate the Formula Rate. The Formula Rate contains all the page, row and column references necessary to locate the appropriate inputs in the FF-1. To the extent that any needed cost information (*i.e.*, 13-month balances for most components of rate base) is not a part of the FF-1, or must be adjusted or allocated, the Formula Rate also identifies the source of the additional data, and the allocation basis employed to determine the appropriate transmission-related portion of all costs. Buckeye will provide the informational FF-1 to PJM for posting along with Buckeye's ATRR so that both documents will be available to interested parties for their timely review.

True-up of each PTRR to actual costs will occur in the calendar year following the posting and review of the ATRR. For example, Buckeye's 2019 ATRR will be posted in May 2020, and any under- or over-collection of Buckeye's 2019 ATRR will be collected or refunded, respectively, with interest during calendar rate year 2021, similar to the process AEPOHTCo

must follow respecting its 2019 true-up. In this regard, Buckeye notes that it currently intends to become a part owner of the first Transmission Project in the 4th quarter of 2018. If this comes about in fact, Buckeye will produce a 2018 ATRR in May 2019. Since the time for posting a 2018 PTRR under Buckeye's proposal would have been October 2017 and has already passed, Buckeye will not recover its 2018 revenue requirement until 2020 when PJM collects Buckeye's 2018 ATRR true-up, and that cost is incorporated in AEPOHTCo's 2020 rates.

Mr. Bethel has prepared Exhibit No. BPI-4, a clean version of the Formula Rate, and Exhibit No. BPI-5, a populated version of the Formula Rate that also shows the differences between the AEPOHTCo formula rate and the Buckeye Formula Rate appearing as redline changes in the exhibit. Exhibit No. BPI-5 also provides illustrative cost information reflecting the expected cost of the first Transmission Project (*i.e.*, Mt. Sterling – Zanesville) in which Buckeye has provided notice that it intends to own jointly with AEPOHTCo.

Details on the Layout of the Formula Rate Template

The first section of the Formula Rate summarizes the cost of service calculation. Page 1 of Exhibit No. BPI-4 (and 5) summarizes the PTRR and the carrying charge rate that would apply to a Transmission Project if PJM were to allocate the costs to customers determined to benefit from the project under PJM OATT Schedule 12.¹⁶

Page 2 details components of rate base, reflecting Buckeye's gross investment in Transmission Projects, less accumulated depreciation, plus an allocation of Buckeye's general plant based on projected Buckeye functional wages and salaries ("labor") and applicable components of working capital. There are line items in the Formula Rate that are never expected to apply to Buckeye, but which have been retained to preserve consistency of the line numbering and source references that exist under the AEPOHTCo formula rate. (Such inapplicable line items include state and federal income taxes, deferred income taxes, and long-term debt hedging.)

Page 3 details projected expenses for O&M, administrative and general ("A&G"), depreciation, and taxes. The total revenue requirement, consisting of expenses plus allowed return on rate base, is shown at the bottom of page 3. O&M expenses will consist of charges from AEPOHTCo based on the rate per dollar of gross plant investment determined pursuant to the Services Agreement between AEPOHTCo and Buckeye that the Commission accepted for filing in Docket No. ER18-1486-000,¹⁷ which Mr. Grooms describes in his testimony.¹⁸ A&G costs will reflect a transmission labor share of Buckeye administrative and general expenses.

¹⁶ See supra n.15.

¹⁷ By letter order issued May 31, 2018, the Commission accepted effective June 30, 2018, the Services Agreement as filed with the Commission by AEP on behalf of AEPOHTCo.

¹⁸ In addition to Buckeye's ownership share of O&M expenses of the Transmission Projects that Buckeye will be billed under the Services Agreement, Mr. Grooms explains that the Services Agreement addresses the compliance services that AEPOHTCo will perform associated with the Transmission Projects.

Because AEPOHTCo will reduce the O&M expenses included in its formula rate by the amounts charged to Buckeye, collection of Service Agreement O&M charges in Buckeye's Formula Rate will restore full O&M cost recovery and will not result in any double recovery of O&M expenses for Transmission Projects.

The allowed return on Buckeye's Rate Base reflects Buckeye's capital structure (on page 4) composed of long-term debt and proprietary (*e.g.*, equity) capital, Buckeye's long-term debt cost rate, and a 10.35% return on equity ("ROE") that includes a 50 basis-point RTO participation bonus. Presently, AEPOHTCo's rates include a 10.35% ROE arising from the proceedings in Docket No. EL17-13. In that proceeding, the so-called "AEP Parties" have reached a settlement with certain parties that provides for a base ROE of 9.85%, effective as of January 1, 2018. However, other participants, including the Commission's staff, have opposed the settlement. Thereafter, on May 22, 2018, Administrative Law Judge Steven L. Sterner issued a Report of Contested Settlement, on May 31, 2018, an order terminating settlement judge procedures was issued, and a final determination now awaits Commission for AEPOHTCo, the Buckeye ROE will change correspondingly effective as of the date the new rate is effective for AEPOHTCo.

The development of major allocation factors and the weighted average cost of capital, or "WACC," are shown on page 4. Notes referenced throughout the Formula Rate are detailed on page $5.^{19}$

C. Description of, and Justification for, the Non-Conforming Language in the NITSA

The NITSA conforms to the standard form of service agreement in the PJM Tariff, except for the pre-existing language in Section 7.6 that was added respecting information on the Section 30.9 credits for the SCP facilities accepted by the Commission in Docket No. ER18-254-000 and the language added to provide for the Formula Rate recovery mechanism that will be used to calculate credits for Buckeye's ownership interests in Transmission Projects set out in the provisions of "Attachment 2 to the Specifications for Network Integration Transmission Service" to the NITSA tendered with the instant filing.

¹⁹ There are parts of the Formula Rate that have been included but are unlikely to be applicable to Buckeye. For example, there are various worksheets that are not expected to apply to Buckeye that are retained in order to maintain consistency with the AEPOHTCo formula rate. These include: worksheets B, B-1 and B-2 dealing with accumulated deferred income taxes; worksheet D regarding credits due to independent power producers for AEP system transmission upgrades; and worksheet G concerning development of the effective state income tax rate. There are also two "Reserved" worksheets (I and L) in the formula as used by AEPOHTCo that are maintained in the Buckeye Formula Rate.

III. DOCUMENTS INCLUDED WITH THIS FILING

The following documents, along with this transmittal letter, are included with this filing:

Attachment 1	PJM Second Revised Service Agreement No. 4753, the NITSA between Buckeye and PJM for transmission service in the PJM Region (Marked Tariff)
Attachment 2	PJM Second Revised Service Agreement No. 4753, the NITSA between Buckeye and PJM for transmission service in the PJM Region (Clean Tariff)
Attachment 3	PDF of executed signature page of PJM Second Revised Service Agreement No. 4753
Attachment 4	Prepared Direct Testimony of Craig Grooms, Exhibit No. BPI-1
Attachment 5	Prepared Direct Testimony of Dennis W. Bethel, Exhibit No. BPI-2, with attached Exhibit Nos. BPI-3, D. W. Bethel Expert Witness Qualifications, BPI-4, the Buckeye Formula Rate (clean), and BPI-5, the Buckeye Formula Rate with illustrative costs and redlined to show changes to AEPOHTCo transmission formula rate

IV. EFFECTIVE DATE

PJM and Buckeye request the Commission to accept this filing and permit the NITSA to become effective on October 1, 2018.

V. COMMUNICATIONS

Correspondence and communications with respect to this filing should be sent to, and PJM and Buckeye request the Secretary to include on the official service list, the following persons:

PJM:

Buckeye:

James M. Burlew, Senior Counsel Office of General Counsel PJM Interconnection, L.L.C. 2750 Monroe Blvd. Audubon, PA 19403 (610) 666-4345 James.Burlew@pjm.com

Craig Grooms Vice President, Engineering and Operations Buckeye Power, Inc. 6677 Busch Boulevard Columbus, Ohio 43229 Telephone: (614) 430-7863 Facsimile: (614) 430-7890 cgrooms@ohioec.org

Marvin T. Griff, Esq. Thompson Hine LLP 1919 M Street, N.W. Suite 700 Washington, DC 20036-1600 Telephone: (202) 263-4109 Facsimile: (202) 331-8330 marvin.griff@thompsonhine.com

Kurt P. Helfrich General Counsel Buckeye Power, Inc. 6677 Busch Boulevard Columbus, Ohio 43229 Telephone: (614) 681-5151 khelfrich@ohioec.org

PJM and Buckeye request waiver of Rule 203(b)(3) of the Commission's Rules of Practice and Procedure²⁰ to permit the inclusion of more than two representatives on the Commission's official service list in this docket.

If you have any questions regarding this filing, please contact the undersigned.

Respectfully submitted,

/s/ Marvin T. Griff

James M. Burlew, Senior Counsel Office of General Counsel PJM Interconnection, L.L.C. 2750 Monroe Blvd. Audubon, PA 19403 (610) 666-4345 James.Burlew@pjm.com Marvin T. Griff, Esq. Thompson Hine LLP 1919 M Street, N.W. Suite 700 Washington, DC 20036-1600 Telephone: (202) 263-4109 Facsimile: (202) 331-8330 marvin.griff@thompsonhine.com

Kurt P. Helfrich General Counsel Buckeye Power, Inc. 6677 Busch Boulevard Columbus, Ohio 43229 Telephone: (614) 681-5151 khelfrich@ohioec.org

Counsel for Buckeye Power, Inc.

²⁰ 18 CFR § 385.203(b)(3) (2017).

Attachment 1

(Marked / Redline Format)

Service Agreement No. 4753

NETWORK INTEGRATION TRANSMISSION SERVICE AGREEMENT Among PJM INTERCONNECTION, L.L.C. And BUCKEYE POWER, INC.

ATTACHMENT F

Service Agreement For Network Integration Transmission Service

- 1.0 This Service Agreement, dated as of <u>November 3, 2017</u> July 31, 2018, is entered into, by and between the Office of the Interconnection of PJM Interconnection, L.L.C. (the Transmission Provider) as the administrator of the Tariff, PJM Settlement Inc. ("Counterparty") as the counterparty, and <u>Buckeye Power, Inc.</u> ("Transmission Customer").
- 2.0 The Transmission Customer has been determined by the Transmission Provider to have a valid request for Network Transmission Service under the Tariff and to have satisfied the conditions for service imposed by the Tariff.
- 3.0 Service under this agreement shall commence on the later of: (l) the requested service commencement date, or (2) the date on which construction of any Direct Assignment Facilities and/or Network Upgrades are completed, or (3) such other date as it is permitted to become effective by the Commission. Service under this agreement shall terminate on such date as mutually agreed upon by the parties.
- 4.0 The Transmission Provider agrees to provide and the Transmission Customer agrees to take and pay for Network Transmission Service in accordance with the provisions of the Tariff, including the Network Operating Agreement (which is incorporated herein by reference), and this Service Agreement as they may be amended from time to time.
- 5.0 Any notice or request made to or by either Party regarding this Service Agreement shall be made to the representative of the other Party as indicated below.

Transmission Provider (on behalf of Transmission Provider and Counterparty):

PJM Interconnection, L.L.C. 2750 Monroe Blvd. Audubon, PA 19403

Transmission Customer:

Buckeye Power, Inc. 6677 Busch Boulevard Columbus, OH 43229

6.0 The Tariff for Network Integration Transmission Service is incorporated herein and made a part hereof.

IN WITNESS WHEREOF, the Parties have caused this Service Agreement to be executed by their respective authorized officials.

Office of the Interconnection:

By: 31, 20	/s/ Michael E. Bryson_	Vice President – Operations	<u>11/3/2017July</u>
<u>51, 2</u> (Name: Michael E. Bryson	Title	Date
Coun	terparty:		
By:	<u>/s/ Stanley H. Williams</u> <u>11/3/2017July 31, 20</u> Name: Stanley H. Williams		Date
Network Customer:			
By:	<u>/s/ Craig W. Grooms</u> 2017July 30, 2018	V.P. – Engineering & Operations	
	Name: Craig Grooms	Title	Date

CERTIFICATION

I, <u>Craig Grooms</u>, certify that I am a duly authorized officer of <u>Buckeye Power</u>, Inc. (Transmission Customer) and that <u>Buckeye Power</u>, Inc. (Transmission Customer) will not request service under this Service Agreement to assist an Eligible Customer to avoid the reciprocity provision of this Open-Access Transmission Tariff.

<u>/s/ Craig W. Grooms</u> (Name) Signature

<u>V.P. – Engineering & Operations</u> (Title)

Subscribed and sworn before me this <u>130th</u> day of <u>NovemberJuly</u>, <u>20178</u>.

/s/ <u>Manmohan K. SachdevaJames J Palnusino</u> (Notary Public)

My Commission expires: <u>May 18, 201810-16-21</u>

SPECIFICATIONS FOR NETWORK INTEGRATION TRANSMISSION SERVICE

1.0 Term of Transaction: Five (5) years

Start Date: January 1, 2018

Termination Date: January 1, 2023

2.0 Description of capacity and/or energy to be transmitted within the PJM Region (including electric control area in which the transaction originates).

Buckeye Power, Inc. ("Buckeye") owns Cardinal Unit 2, Cardinal Unit 3, R.P. Mone Unit 1, R.P. Mone Unit 2 and R.P. Mone Unit 3 in the AEP zone and Greenville Unit 1, Greenville Unit 2, Greenville Unit 3 and Greenville Unit 4 in the Dayton zone. Buckeye is also an owner in the Ohio Valley Electric Corporation ("OVEC") units (Clifty Creek and Kyger Creek) which are pseudo-tied to PJM. Buckeye also receives an entitlement from NYPA (Niagara and St. Lawrence) which is delivered from NYISO.

Load: Buckeye serves its member load within 5 transmission zones: AEPOH, AEPIM, Dayton, ATSI and DEOK.

3.0 Network Resources:

Cardinal Unit 2: ICAP 585 MW (RPM Resource ID: 89090102) Cardinal Unit 3: ICAP 620 MW (RPM Resource ID: 89090103) R.P. Mone Unit 1: ICAP 145 MW (RPM Resource ID: 89462101) R.P. Mone Unit 2: ICAP 145 MW (RPM Resource ID: 89462102) R.P. Mone Unit 3: ICAP 145 MW (RPM Resource ID: 89462103) Greenville Unit 1: ICAP 49 MW (RPM Resource ID: 87082101) Greenville Unit 2: ICAP 49 MW (RPM Resource ID: 87082102) Greenville Unit 3: ICAP 49 MW (RPM Resource ID: 87082103) Greenville Unit 4: ICAP 49 MW (RPM Resource ID: 87082104) Clifty Creek Unit 1: ICAP 34.3 MW (RPM Resource ID: 99120451) Clifty Creek Unit 2: ICAP 34.3 MW (RPM Resource ID: 99120452) Clifty Creek Unit 3: ICAP 34.3 MW (RPM Resource ID: 99120453) Clifty Creek Unit 4: ICAP 34.3 MW (RPM Resource ID: 99120454) Clifty Creek Unit 5: ICAP 34.3 MW (RPM Resource ID: 99120455) Clifty Creek Unit 6: ICAP 34.3 MW (RPM Resource ID: 99120456) Kyger Creek Unit 1: ICAP 34.0 MW (RPM Resource ID: 99130451) Kyger Creek Unit 2: ICAP 33.8 MW (RPM Resource ID: 99130452) Kyger Creek Unit 3: ICAP 33.8 MW (RPM Resource ID: 99130453) Kyger Creek Unit 4: ICAP 33.8 MW (RPM Resource ID: 99130454) Kyger Creek Unit 5: ICAP 33.8 MW (RPM Resource ID: 99130455)

NYPA (RECS GEN): ICAP 55MW – 81MW (depends on yearly entitlement) (RPM Resource ID: 99122105)

4.0 Network Load:

AEP Zone (Buckeye – AEPOH) 2017 NSPL: 1,056.2 MW AEP Zone (Buckeye – AEPIM) 2017 NSPL: 19.5 MW Dayton Zone (Buckeye – DPL) 2017 NSPL: 290.3 MW ATSI Zone (BUCK-FE) 2017 NSPL: 196.4 MW DEOK Zone (BUCK-CIN) 2017 NSPL: 45.3 MW

- 5.0 Designation of party subject to reciprocal service obligation: Per Section 6.0 of the PJM Open Access Transmission Tariff ("Tariff").
- 6.0 Name(s) of any Intervening Systems providing transmission service: OVEC
- 7.0 Service under this Agreement may be subject to some combination of the charges detailed below. (The appropriate charges for individual transactions will be determined in accordance with the terms and conditions of the tariff.)
 - 7.1 Embedded Cost Transmission Charge: Per the applicable sections of the PJM Tariff.
 - 7.2 Facilities Study Charge: Per the applicable sections of the PJM Tariff.
 - 7.3 Direct Assignment Facilities Charge: Per the applicable sections of the PJM Tariff.
 - 7.4 Ancillary Services Charge: Per the applicable sections of the PJM Tariff.
 - 7.5 Other Supporting Facilities Charge: Per the applicable sections of the PJM Tariff. In addition, the Wholesale Distribution Services ("WDS") rate for Buckeye members located in the Duke Energy footprint is 65 cents/kW-month. (This WDS rate was set in the 1968 Power Delivery Agreement among Columbus Southern Power, Buckeye Power, Inc., The Cincinnati Gas & Electric Company, The Dayton Power and Light Company, Monongahela Power Company, Ohio Power Company, and Toledo Edison Company. Due to its vintage, there is no record of the docket number in which this rate was accepted by the Commission.)
 - 7.6 Transmission Credits: See Attachment 1 and Attachment 2 to the Specifications for Network Integration Transmission Service.

ATTACHMENT 1 TO THE SPECIFICATIONS FOR NETWORK INTEGRATION TRANSMISSION SERVICE

TRANSMISSION CREDITS PURSUANT TO PJM TARIFF SECTION 30.9

A total annual Transmission Credit will be issued to Buckeye Power, Inc., in monthly increments, on behalf of its member South Central Power Company ("SCP"), in the amount indicated for the following listed SCP transmission facilities:

Line No.	Transmission Facility Description	Original Cost	Annual Cost
A - D	(1)	(2)	(3) = (2) * LFCR
1	Pre-July13, 2007 Stations	\$4,055,497.02	\$548,526.90
2	Pre-July13, 2007 Lines	\$9,854,760.27	\$1,332,907.19
3	Post-July13, 2007 Stations	\$7,263,729.33	\$982,456.88
4	Post-July13, 2007 Lines	\$8,609,390.65	\$1,164,464.52
5	Total 30.9 Facilities & Credits	\$29,783,377.27	\$4,028,355.50

ATTACHMENT 2 TO THE SPECIFICATIONS FOR NETWORK INTEGRATION TRANSMISSION SERVICE

TRANSMISSION CREDITS PURSUANT TO PJM TARIFF SECTION 30.9

A total annual Transmission Credit will be issued to Buckeye Power, Inc., ("Buckeye") in monthly increments, in the amount indicated under the transmission formula rate mechanism ("Formula Rate") for calculating and specifying credits for its minority ownership interest (40% or less) in certain transmission project facilities jointly owned with AEP Ohio Transmission Company. Buckeye's Formula Rate is attached hereto and is incorporated herein by reference.

Attachment 2

(Clean Format)

Service Agreement No. 4753

NETWORK INTEGRATION TRANSMISSION SERVICE AGREEMENT Among PJM INTERCONNECTION, L.L.C. And BUCKEYE POWER, INC.

ATTACHMENT F

Service Agreement For <u>Network Integration Transmission Service</u>

- 1.0 This Service Agreement, dated as of <u>July 31, 2018</u>, is entered into, by and between the Office of the Interconnection of PJM Interconnection, L.L.C. (the Transmission Provider) as the administrator of the Tariff, PJM Settlement Inc. ("Counterparty") as the counterparty, and <u>Buckeye Power, Inc.</u> ("Transmission Customer").
- 2.0 The Transmission Customer has been determined by the Transmission Provider to have a valid request for Network Transmission Service under the Tariff and to have satisfied the conditions for service imposed by the Tariff.
- 3.0 Service under this agreement shall commence on the later of: (1) the requested service commencement date, or (2) the date on which construction of any Direct Assignment Facilities and/or Network Upgrades are completed, or (3) such other date as it is permitted to become effective by the Commission. Service under this agreement shall terminate on such date as mutually agreed upon by the parties.
- 4.0 The Transmission Provider agrees to provide and the Transmission Customer agrees to take and pay for Network Transmission Service in accordance with the provisions of the Tariff, including the Network Operating Agreement (which is incorporated herein by reference), and this Service Agreement as they may be amended from time to time.
- 5.0 Any notice or request made to or by either Party regarding this Service Agreement shall be made to the representative of the other Party as indicated below.

Transmission Provider (on behalf of Transmission Provider and Counterparty):

PJM Interconnection, L.L.C. 2750 Monroe Blvd. Audubon, PA 19403

Transmission Customer:

Buckeye Power, Inc. 6677 Busch Boulevard Columbus, OH 43229

6.0 The Tariff for Network Integration Transmission Service is incorporated herein and made a part hereof.

IN WITNESS WHEREOF, the Parties have caused this Service Agreement to be executed by their respective authorized officials.

Office of the Interconnection:

By:	<u>/s/ Michael E. Bryson</u>	<u>Vice President – Operations</u>	<u>July 31, 2018</u>
	Name: Michael E. Bryson	Title	Date
<u>Count</u>	erparty:		
By:	<u>/s/ Stanley H. Williams</u>	President	<u>July 31, 2018</u>
	Name: Stanley H. Williams	Title	Date
Network Customer:			
By:	<u>/s/ Craig W. Grooms</u>	<u>V.P. – Engineering & Operations</u>	<u>July 30, 2018</u>
	Name: Craig Grooms	Title	Date

CERTIFICATION

I, <u>Craig Grooms</u>, certify that I am a duly authorized officer of <u>Buckeye Power</u>, Inc. (Transmission Customer) and that <u>Buckeye Power</u>, Inc. (Transmission Customer) will not request service under this Service Agreement to assist an Eligible Customer to avoid the reciprocity provision of this Open-Access Transmission Tariff.

<u>/s/ Craig W. Grooms</u> (Name) Signature

<u>V.P. – Engineering & Operations</u> (Title)

Subscribed and sworn before me this <u>30th</u> day of <u>July</u>, <u>2018</u>.

/s/ James J Palnusino (Notary Public)

My Commission expires: 10-16-21

SPECIFICATIONS FOR NETWORK INTEGRATION TRANSMISSION SERVICE

1.0 Term of Transaction: Five (5) years

Start Date: January 1, 2018

Termination Date: January 1, 2023

2.0 Description of capacity and/or energy to be transmitted within the PJM Region (including electric control area in which the transaction originates).

Buckeye Power, Inc. ("Buckeye") owns Cardinal Unit 2, Cardinal Unit 3, R.P. Mone Unit 1, R.P. Mone Unit 2 and R.P. Mone Unit 3 in the AEP zone and Greenville Unit 1, Greenville Unit 2, Greenville Unit 3 and Greenville Unit 4 in the Dayton zone. Buckeye is also an owner in the Ohio Valley Electric Corporation ("OVEC") units (Clifty Creek and Kyger Creek) which are pseudo-tied to PJM. Buckeye also receives an entitlement from NYPA (Niagara and St. Lawrence) which is delivered from NYISO.

Load: Buckeye serves its member load within 5 transmission zones: AEPOH, AEPIM, Dayton, ATSI and DEOK.

3.0 Network Resources:

Cardinal Unit 2: ICAP 585 MW (RPM Resource ID: 89090102) Cardinal Unit 3: ICAP 620 MW (RPM Resource ID: 89090103) R.P. Mone Unit 1: ICAP 145 MW (RPM Resource ID: 89462101) R.P. Mone Unit 2: ICAP 145 MW (RPM Resource ID: 89462102) R.P. Mone Unit 3: ICAP 145 MW (RPM Resource ID: 89462103) Greenville Unit 1: ICAP 49 MW (RPM Resource ID: 87082101) Greenville Unit 2: ICAP 49 MW (RPM Resource ID: 87082102) Greenville Unit 3: ICAP 49 MW (RPM Resource ID: 87082103) Greenville Unit 4: ICAP 49 MW (RPM Resource ID: 87082104) Clifty Creek Unit 1: ICAP 34.3 MW (RPM Resource ID: 99120451) Clifty Creek Unit 2: ICAP 34.3 MW (RPM Resource ID: 99120452) Clifty Creek Unit 3: ICAP 34.3 MW (RPM Resource ID: 99120453) Clifty Creek Unit 4: ICAP 34.3 MW (RPM Resource ID: 99120454) Clifty Creek Unit 5: ICAP 34.3 MW (RPM Resource ID: 99120455) Clifty Creek Unit 6: ICAP 34.3 MW (RPM Resource ID: 99120456) Kyger Creek Unit 1: ICAP 34.0 MW (RPM Resource ID: 99130451) Kyger Creek Unit 2: ICAP 33.8 MW (RPM Resource ID: 99130452) Kyger Creek Unit 3: ICAP 33.8 MW (RPM Resource ID: 99130453) Kyger Creek Unit 4: ICAP 33.8 MW (RPM Resource ID: 99130454) Kyger Creek Unit 5: ICAP 33.8 MW (RPM Resource ID: 99130455) NYPA (RECS GEN): ICAP 55MW – 81MW (depends on yearly entitlement) (RPM Resource ID: 99122105)

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- 7.0 Service under this Agreement may be subject to some combination of the charges detailed below. (The appropriate charges for individual transactions will be determined in accordance with the terms and conditions of the tariff.)
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 - 7.3 Direct Assignment Facilities Charge: Per the applicable sections of the PJM Tariff.
 - 7.4 Ancillary Services Charge: Per the applicable sections of the PJM Tariff.
 - 7.5 Other Supporting Facilities Charge: Per the applicable sections of the PJM Tariff. In addition, the Wholesale Distribution Services ("WDS") rate for Buckeye members located in the Duke Energy footprint is 65 cents/kW-month. (This WDS rate was set in the 1968 Power Delivery Agreement among Columbus Southern Power, Buckeye Power, Inc., The Cincinnati Gas & Electric Company, The Dayton Power and Light Company, Monongahela Power Company, Ohio Power Company, and Toledo Edison Company. Due to its vintage, there is no record of the docket number in which this rate was accepted by the Commission.)
 - 7.6 Transmission Credits: See Attachment 1 and Attachment 2 to the Specifications for Network Integration Transmission Service.

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TRANSMISSION CREDITS PURSUANT TO PJM TARIFF SECTION 30.9

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5	Total 30.9 Facilities & Credits	\$29,783,377.27	\$4,028,355.50

ATTACHMENT 2 TO THE SPECIFICATIONS FOR NETWORK INTEGRATION TRANSMISSION SERVICE

TRANSMISSION CREDITS PURSUANT TO PJM TARIFF SECTION 30.9

A total annual Transmission Credit will be issued to Buckeye Power, Inc., ("Buckeye") in monthly increments, in the amount indicated under the transmission formula rate mechanism ("Formula Rate") for calculating and specifying credits for its minority ownership interest (40% or less) in certain transmission project facilities jointly owned with AEP Ohio Transmission Company. Buckeye's Formula Rate is attached hereto and is incorporated herein by reference. Attachment 3

Copy of Signature Page

IN WITNESS WHEREOF, the Parties have caused this Service Agreement to be executed by their respective authorized officials.

Office of the Interconnection:

By: <u>Ulichael E. Bryson</u><u>Vice President – Operations</u> Name: Michael E. Bryson Title

7/31/2018 Date

Counterparty

By:

President Title

7/31/2018

Transmission Customer:

By:

V.P. Engineering Delations 7/30/2018 Name Title Date

CERTIFICATION

I, Craig Grooms, certify that I am a duly authorized officer of Buckeye Power, Inc. (Transmission Customer) and that Buckeye Power, Inc. (Transmission Customer) will not request service under this Service Agreement to assist an Eligible Customer to avoid the reciprocity provision of this Open-Access Transmission Tariff.

Cyngwon

V.P. - Engineering & Operations (Title)

Subscribed and sworn before me this $\frac{30^{+1}}{20/8}$ day of $\frac{10/9}{20/8}$

James & Palmesoro

(Notary Public)

My Commission expires: 10-16-2-1



James J. Palmisano Notary Public, State of Ohio My Commission Expires Oct. 16, 2021

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

))

BUCKEYE POWER, INC.

Docket No. ER18-2110-000

PREPARED DIRECT TESTIMONY OF CRAIG GROOMS

ON BEHALF OF

BUCKEYE POWER, INC.

JULY 27, 2018

TABLE OF CONTENTS

<u>Exhibit No.</u>	Description Page N	<u>0.</u>
Exhibit N	o. BPI-1: Craig W. Grooms Prepared Direct Testimony	
I.	Introductions and Qualifications	
II.	Summary of Testimony and Exhibits Sponsored	4
III.	Transmission Projects and the Services Agreement	5

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

))

BUCKEYE POWER, INC

Docket No. ER18-2110-000

PREPARED DIRECT TESTIMONY OF CRAIG GROOMS

I. Introductions and Qualifications

1 Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

- 2 A. My name is Craig Grooms. I am the Vice President, Engineering and Operations,
- 3 for Buckeye Power, Inc. ("Buckeye"). My business address is 6677 Busch
- 4 Boulevard, Columbus, Ohio 43229.

5 Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

6 A. I am testifying on behalf of Buckeye.

7 Q. PLEASE DESCRIBE YOUR EDUCATION, PROFESSIONAL 8 QUALIFICATIONS AND EXPERIENCE.

9 A. I received a Bachelor of Science degree in Engineering Technology from the
10 University of Dayton and a Master of Business Administration from Otterbein
11 University. I've been employed in the electric utility industry for over 20 years in a
12 variety of positions related to electric system operations (power generation dispatch
13 and transmission), natural gas system operations and energy marketing. My current
14 responsibilities include oversight and management of Buckeye Power's scheduling

1	responsibilities in PJM Interconnection, L.L.C ("PJM") and the Mid-Continent
2	Independent System Operator ("MISO"), power generation dispatch, information
3	technology, power delivery engineering, transmission services, corporate facilities
4	and reliability compliance.

5 Q. HAVE YOU TESTIFIED PREVIOUSLY IN ANY PROCEEDING BEFORE 6 THE FEDERAL ENERGY REGULATORY COMMISSION OR STATE 7 REGULATORY AGENCY?

8 A. No.

II. <u>Summary of Testimony and Exhibits Sponsored</u>

9 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

10 A. In my testimony, I provide an overview of a transmission facility that's been 11 planned and constructed, and will be operated and maintained by AEP Ohio 12 Transmission Company ("AEPOHTCo"), an American Electric Power ("AEP") 13 subsidiary, in which Buckeye will invest as a minority joint owner. I also describe a 14 related agreement for services between Buckeye and AEPOHTCo that provides for 15 the operation and maintenance of, and the provision of regulatory compliance 16 services for, such transmission facilities by AEPOHTCo ("Services Agreement"). 17 Additionally, I describe a number of benefits that will result from Buckeye's 18 participation in the jointly owned transmission facility nearing completion and 19 potentially others that AEPOHTCo may develop in rural Ohio.

20 Q. WHAT EXHIBITS ARE YOU SPONSORING AS PART OF YOUR

21 **TESTIMONY?**

22 A. I am sponsoring the following exhibits:

1

Exhibit No. BPI-1: Craig W. Grooms Prepared Direct Testimony

III. Transmission Projects and the Services Agreement

2 Q PLEASE BRIEFLY DESCRIBE THE TRANSMISSION FACILITY 3 PROJECTS THAT BUCKEYE WILL JOINTLY OWN WITH AEPOHTCO.

4 A. Buckeye and AEPOHTCo have agreed that there is potential for the development of 5 transmission facilities generally situated in the rural areas of Ohio where Buckeye's 6 member electric distribution cooperatives are located. These potential facilities 7 would be comparable to others wholly-owned by AEPOHTCo that are integrated 8 with its system, but would be of particular importance to Buckeye. Approximately 9 65% of Buckeye's member load is served by 17 of Buckeye's members at 204 10 transmission delivery points that are dependent on the transmission facilities of AEP 11 for network integration transmission service. With this heavy reliance on AEP 12 facilities, Buckeye has concluded that its members' best interests are served by 13 participating in the financing and partial ownership of AEP-developed transmission 14 facilities that benefit the grid and improve reliability in the rural areas of the AEP 15 zone where Buckeye's members are located.

16 If AEP develops a project through AEPOHTCo that is generally situated in 17 an area that provides network service to Buckeye members, AEPOHTCo may seek 18 Buckeye's participation in the project. If AEPOHTCo does develop such a project, 19 it will provide notice to Buckeye, which will have the option to acquire up to a 40% 20 ownership share of the facilities at the time such facilities are placed in service. In 21 my testimony I refer to such transmission facility projects that Buckeye will jointly 22 own with AEPOHTCo as the "Transmission Projects" and "Transmission Project" when used in the singular. Regardless of Buckeye's participation as an owner,
 AEPOHTCo, will develop, construct and operate the transmission facility projects
 on its own.

4 Significantly, AEPOHTCo will follow established PJM processes, practices 5 and criteria for the planning, review, construction and operation of potential 6 Transmission Projects as it uses for all other projects. As such, we expect there to 7 be no difference in the evaluation, planning, vetting, development, construction and 8 operation of the Transmission Projects and those transmission facility projects that 9 AEPOHTCo, or any other Transmission Owner in PJM, might undertake on their 10 own.

11 Q PLEASE BRIEFLY DESCRIBE THE SERVICES AGREEMENT.

The Services Agreement addresses the operation and maintenance ("O&M"), and compliance services that AEPOHTCo will perform associated with the Transmission Projects. AEPOHTCo will bill Buckeye its proportionate ownership share of O&M expenses under the Services Agreement. AEPOHTCo filed the Services Agreement with the Commission in Docket No. ER18-1486-000. The Commission accepted the Services Agreement for filing on May 31, 2018, effective as of June 30, 2018.

19 Q HAVE BUCKEYE AND AEPOHTCO IDENTIFIED A POSSIBLE 20 TRANSMISSION PROJECT?

A. Yes. AEPOHTCO and Buckeye have identified one such project that has made its
 way through the PJM transmission planning process that AEPOHTCo is currently
 constructing, with an expected in service date of November 1, 2018 [MT. Sterling –

Zanesville 69kV Circuit, PJM Upgrade ID: S1514.1 ("Mt. Sterling – Zanesville")].
 Buckeye has already provided notice to AEPOHTCo that it intends to participate in
 that project as a 40% minority owner.

4

5

Q WILL BUCKEYE OWN ANY TRANSMISSION FACILITIES OTHER THAN THOSE JOINTLY OWNED WITH AEPOHTCo?

- A. Buckeye has no plans to own any transmission facilities other than the Transmission
 Projects it has described in this filing. In any event, Buckeye will separately seek
 Commission approval for cost recovery of any transmission facilities that are not
 Transmission Projects that will be owned by Buckeye.
- 10 Q WHAT ARE THE MAIN DISTINGUISHING FEATURES BETWEEN THE
 11 TRANSMISSION FACILITIES FOR WHICH COST RECOVERY WAS
 12 APPROVED IN DOCKET NO. ER18-254-000 AND THE TRANSMISSION
 13 PROJECTS DISCUSSED IN THIS PROCEEDING?
- 14 Docket No. ER18-254 involved cost recovery for existing 69 kV transmission A. 15 facilities that had been planned in coordination with AEP and are integrated in the 16 AEP zone, but were constructed and are owned and operated by a Buckeye member 17 cooperative, South Central Power Company ("SCP"). The revenue requirements for 18 these SCP transmission facilities are calculated using a levelized annual revenue 19 requirement methodology that provides for cost recovery until and unless a different 20 revenue requirement is approved pursuant to a filing with the Commission. PJM 21 and Buckeye filed a revised Network Integration Transmission Service Agreement 22 adding provisions for credits under Section 30.9 of PJM's Open Access 23 Transmission Tariff ("OATT") for the cost of the SCP transmission facilities.

1 In this proceeding, cost recovery would be for Buckeye's minority 2 ownership share in certain transmission facilities that AEPOHTCo is developing 3 and constructing in areas in which Buckeye's electric distribution cooperative 4 members are located that will be integrated into the AEP transmission system. 5 AEPOHTCo will also be operating, maintaining and providing compliance services 6 for these projects. As discussed more fully in Mr. Bethel's testimony, Buckeye 7 proposes to recover its revenue requirement in Transmission Projects under PJM's 8 zonal license plate rate design through Section 30.9 of the PJM OATT using a 9 transmission formula rate modeled on the AEPOHTCo transmission formula rate. 10 The first Transmission Project that Buckeye expects to recover under the Section 11 30.9 credit and Formula Rate proposed in the instant filing is Mt. Sterling – Zanesville. 12 WHAT BENEFITS WILL RESULT FROM BUCKEYE'S MINORITY 13 **Q**.

14

15

. WHAT BENEFITS WILL RESULT FROM BUCKEYE'S MINORITY OWNERSHIP IN THE AEPOHTCO TRANSMISSION FACILITY PROJECTS?

16 A. Approval of Buckeye's proposal will provide a number of benefits. These include:

- furthering the development of integrated transmission project facilities that
 will enhance the AEP transmission system in areas of Ohio served by
 electric distribution cooperatives;
- eliminating the need for Buckeye to develop duplicate transmission facilities
 on its own in the AEP zone of PJM; and
- providing cost savings for customers because the total revenue requirements
 of both AEPOHTCo and Buckeye for Transmission Projects will be lower

- 1 than would otherwise be the case if each of these projects were owned
- 2 exclusively by AEPOHTCo.

3 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

4 **A.** Yes.

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

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)

BUCKEYE POWER, INC.

1

Docket No. ER18-2110-000

AFFIDAVIT

I certify that the attached testimony in this proceeding was prepared by me or under my direct supervision or were taken from other sources noted. The answers contained in my testimony are true and correct to the best of my knowledge, information, and belief.

Craig Grooms

Subscribed and sworn before me this 27th day of July , 2018

My Commission expires: 10/16/21



James J. Palmisano Notary Public, State of Ohio My Commission Expires Oct. 16, 2021

Exhibit No. BPI-2 Page 1 of 16

UNITED STATES OF AMERICA

BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

BUCKEYE POWER, INC.

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DOCKET NO. ER18-2110-000

PREPARED DIRECT TESTIMONY AND EXHIBITS OF DENNIS W. BETHEL ON BEHALF OF BUCKEYE POWER, INC.

JULY 26, 2018

TABLE OF CONTENTS

<u>Exhib</u>	it No. Description	Page No.
Exhib	it No. BPI-2: Dennis W. Bethel Prepared Direct Testimony	
I.	Introduction and Qualifications	3
II.	Purpose of Testimony and Exhibits Sponsored	3
III.	Summary of Testimony	4
IV.	The Buckeye Formula Rate	5
Exhib	it No. BPI-3: D. W. Bethel Expert Witness Qualifications	
Exhib	it No. BPI-4: Buckeye Formula Rate – Clean Version	
Exhib	it No. BPI-5: Buckeye Formula Rate Populated with Illustrative Co	osts and Redlined
	Changes Compared to AEP Ohio Transmission Comp	oany's Transmission
	Formula Rate	

1 2 I. **Introduction and Qualifications** 3 **Q**. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION. 4 A. My name is Dennis W. Bethel. My address is 2905 North Star Road, Upper Arlington, Ohio, 5 43221-2920. I am President of Bethel Electric Rate Consulting, LLC, an independent business 6 providing electric cost-of-service and rate related consulting services to electric utilities, 7 independent power producers, and other entities that require regulatory approval of rates and tariffs for electric services. 8 9 Q. PLEASE SUMMARIZE YOUR TRAINING AND EXPERIENCE IN MATTERS 10 **RELEVANT TO THIS PROCEEDING.** 11 A. My training in electrical engineering and business, my more than 40 years of electric utility 12 industry experience, and my numerous expert witness appearances in state and federal electric 13 rate proceedings are summarized in Exhibit No. BPI-3. 14 **Q**. DO YOU HOLD ANY PROFESSIONAL LICENSES? 15 A. Yes. I hold Professional Engineer licenses in the states of Indiana and Ohio. 16 II. **Purpose of Testimony and Exhibits Sponsored** 17 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY? 18 A. I have been engaged by Buckeye Power, Inc. ("Buckeye") as an independent consultant to assist 19 it in this proceeding before the Federal Energy Regulatory Commission ("Commission" or 20 "FERC") to develop and support a formula rate for Buckeye's transmission revenue 21 requirement to be collected by Buckeye as a credit under Section 30.9 of the PJM 22 Interconnection, LLC ("PJM") open access transmission tariff ("OATT" or "Tariff").

1

Q. WHAT EXHIBITS ARE YOU SPONSORING?

2 A. I am sponsoring the following Exhibits:

3	•	Exhibit No. BPI-2: Dennis W. Bethel Prepared Direct Testimony;
4	•	Exhibit No. BPI-3: D. W. Bethel Expert Witness Qualifications;
5	٠	Exhibit No. BPI-4: Buckeye Formula Rate – Clean Version
6	٠	Exhibit No. BPI-5: Buckeye Formula Rate Populated with Illustrative Costs and Redlined
7		Changes Compared to AEP Ohio Transmission Company's Transmission Formula Rate
8		

9

III. <u>Summary of Testimony</u>

10 Q. PLEASE SUMMARIZE YOUR TESTIMONY

11 A. My testimony describes the formula rate that Buckeye proposes to use to compute its annual 12 transmission revenue requirement ("ATRR") for transmission facilities to be planned, 13 constructed, operated and maintained by AEP Ohio Transmission Company ("AEPOHTCo") 14 in which Buckeye will invest in as a minority joint owner ("Transmission Projects"; singular, 15 "Transmission Project"). My testimony accompanies the testimony of Craig Grooms, Buckeye 16 Vice President of Engineering and Operations, who provides an overview of the Transmission 17 Projects and benefits associated with Buckeye's investment in them. A blank version of the 18 Buckeye transmission formula rate (the "Formula Rate Template" or "Formula Rate") is 19 included as Buckeye Exhibit No. BPI-4 The Formula Rate will be updated each year on a 20 projected cost basis for the following year and on an actual cost basis for the prior year. 21 Buckeye's transmission revenue requirement under the Formula Rate will be collected by PJM 22 under Section 30.9 of the PJM Tariff and provided to Buckeye through credits on Buckeye's 23 PJM billing statements. Proposed revisions to Buckeye's network integration transmission

1	service agreement ("NITSA") filed in this proceeding implement the Section 30.9 credits. The
2	Buckeye Formula Rate is based on the formula rate used by AEPOHTCo (and other AEP
3	companies) to calculate applicable transmission revenue requirements. Differences between
4	the AEPOHTCo formula rate and the Buckeye Formula Rate are identified in my testimony and
5	illustrated as redline changes in Exhibit No. BPI-5. That exhibit also provides illustrative cost
6	information reflecting the expected cost of the first Transmission Project that Buckeye expects
7	to jointly own with AEPOHTCo.

8

IV. <u>The Buckeye Formula Rate</u>

9 Q. WHAT DOES THE FORMULA RATE COMPUTE?

A. The Formula Rate will compute Buckeye's revenue requirements for transmission assets jointly
 owned with AEPOHTCo described under this filing.

12 Q. DOES BUCKEYE PRESENTLY OWN ELECTRIC FACILITIES THAT ARE 13 BOOKED TO TRANSMISSION PLANT?

- 14A.Yes. Buckeye owns certain generator step-up transformers and related facilities ("GSUTs") at15two power plants that are booked as transmission plant. However, consistent with the treatment
- 16 of GSUTs owned by the AEP Companies approved in Docket No. ER93-540, *see American*
- 17 Electric Power Service Corp., 88 FERC ¶ 61,141 at 38-39 (1999), Buckeye will exclude the
- 18 cost of these facilities from its revenue requirement computed under the Formula Rate.

19 Q. PLEASE BRIEFLY DESCRIBE HOW BUCKEYE PROPOSES TO RECOVER ITS

20 **REVENUE REQUIREMENTS FOR THE TRANSMISSION PROJECTS.**

- 21 A. Buckeye is proposing revisions to its NITSA to recover its revenue requirement in Transmission
- 22 Projects under PJM's zonal license plate rate design through Section 30.9 of the PJM OATT.

1	The revenue requirement will be computed under the Formula Rate. ¹ Because Buckeye is a
2	PJM network integration transmission service customer in the AEP transmission zone, it is
3	appropriate to use Section 30.9 of the PJM OATT as the mechanism for Buckeye to receive
4	credits for these transmission facilities in which it becomes a minority owner. It is also
5	appropriate for Buckeye to use a transmission formula rate modeled on the transmission formula
6	rate used by AEPOHTCo (and other AEP affiliates) to calculate the revenue requirements for
7	its transmission investments, including its majority share in the Transmission Projects. The
8	AEPOHTCo transmission formula rate, at Line No. 3 of page 1 of the "TCOS" section and Note
9	"X", provides for AEPOHTCo to include "Facility Credits under PJM OATT Section 30.9" in
10	its transmission revenue requirement.

Q. IF PJM WERE TO DETERMINE THAT A TRANSMISSION PROJECT IN WHICH BUCKEYE PLANS TO INVEST MUST BE COLLECTED UNDER SCHEDULE 12 OF THE PJM OATT, HOW WILL BUCKEYE'S REVENUE REQUIREMENT BE RECOVERED?

A. Mr. Grooms explains that the Transmission Projects will be planned by AEP and "generally situated in the rural areas of Ohio where Buckeye's member electric distribution cooperatives are located" in PJM's AEP Zone. Thus, it is highly unlikely that the situation posed will occur because the cost of contemplated projects in rural Ohio areas would typically have to be recovered by PJM through network integration transmission service charges for load in the AEP Zone, and not under Schedule 12 of the PJM OATT

¹ Buckeye's revenue requirement cost recovery will be made pursuant to the provisions of "Attachment 2 to the Specifications for Network Integration Transmission Service" to the NITSA tendered with the instant filing.

1	The five sections of Schedule 12 - Transmission Enhancement Charges of the PJM
2	OATT presently govern cost recovery of projects as follows: (a) Establishment of Transmission
3	Enhancement Charges ("TEC"), (b) Designation of Customers Subject to TEC, (c)
4	Determination of TEC, (d) Recovery of TEC, and (c) Crediting of TEC. Under the
5	"Establishment of TEC" requirements, qualifying transmission projects must meet specific
6	criteria that exclude several types of transmission facilities from eligibility. Generally, facilities
7	that come under the provisions of Schedule 12 must operate at a voltage of at least 345 kV or
8	be required by the construction of such facilities (Section (b) (i)). Further, most if not all of the
9	contemplated Transmission Projects under consideration by Buckeye will likely be "Local
10	Upgrades," which are not eligible under Schedule 12, Section (a) (iii).
11	Nevertheless, the Formula Rate includes the same method as is set out in AEPOHTCo's
12	formula rate for separately calculating the facility-specific revenue requirement of Schedule 12
13	projects. The mechanism for calculating the revenue requirement for facility-specific Schedule
14	12 projects relies on the calculation of a net-plant carrying charge rate equal to the total revenue
15	requirement for all Buckeye investments in Transmission Projects divided by Buckeye's net
16	plant investment (depreciated cost) in all Transmission Projects. The net-plant carrying charge
17	rate is multiplied times the net plant cost of each Schedule 12 project each year to determine
18	the TEC that PJM will need to collect from designated customers under Schedule 12. Finally,
19	Schedule 12 revenues are credited to the total Buckeye transmission revenue requirement to
20	determine the AEP Zone NITS revenue requirement so there can be no excess or under
21	collection of costs.

22 Q. PLEASE DESCRIBE THE PROPOSED FORMULA RATE TEMPLATE.

A. The Formula Rate Template proposed by Buckeye is an Excel spreadsheet model that is
 populated with projected costs each October to determine the estimated revenue requirement
 that will be collected beginning January 1 of the following calendar year. The Formula Rate
 will also be populated each May with actual costs for the prior year. The difference between
 actual costs and revenues collected using projected rates will then be trued-up with interest in
 the next calendar year.

Q. PLEASE DESCRIBE FURTHER THE PROCESS AND SCHEDULE OF EVENTS THAT BUCKEYE PROPOSES TO FOLLOW CONCERNING PREPARING, POSTING AND TRUING-UP ITS PROJECTED REVENUE REQUIREMENTS.

A. Buckeye will populate the Formula Rate with estimated cost information to produce a projected
 transmission revenue requirement ("PTRR") each year in October prior to the PJM website
 posting of AEPOHTCo's PTRR for the up-coming calendar rate year. Buckeye will provide its
 populated Formula Rate to AEPOHTCo and PJM so that the charges PJM will make to
 AEPOHTCo under Section 30.9 of the OATT will be concurrently recovered by AEPOHTCo
 in AEP Zone NITS charges collected by PJM.

16 The Buckeye PTRR computed each October will reflect the investments in 17 Transmission Projects that Buckeye has made or has committed to make that are in-service or 18 are projected to enter service during the following rate year. Other cost inputs to the PTRR will 19 be estimated.

Each May following a PTRR update, Buckeye will calculate its ATRR for the previous
 year and provide the update to AEPOHTCo prior to its required PJM ATRR posting. Buckeye

1 will compare the ATRR to Section 30.9 revenues (i.e., the PTRR amounts) it received from 2 PJM during the same previous calendar year to determine the amount of under- or over-3 collection and compute the interest that will need to be combined with the next PTRR ("True-4 up Adjustment"). The True-up Adjustment interest will be computed from the month the 5 corresponding PTRR was first effective through the end of the next calendar rate year, following 6 the same true-up adjustment steps that AEPOHTCo will be taking. The interest rate used in the 7 computation will be the average monthly FERC refund interest rate (i.e., the interest rate 8 determined pursuant to 18 C.F.R. § 35.19a) for the twenty (20) months from the beginning of 9 the rate year being trued-up through August 31 of the following year – the same interest rate 10 AEPOHTCo will use.

11 Q. WILL INTERESTED PARTIES HAVE A MEANINGFUL OPPORTUNITY TO 12 VERIFY BUCKEYE'S COSTS AND ANNUAL UPDATES?

13 A. Yes. AEPOHTCo will be the majority owner of every Transmission Project that Buckeye will 14 include in its annual updates. Interested Parties will be able to examine and verify the 15 appropriateness of all Transmission Project costs and operation and maintenance ("O&M") 16 expenses allocated by AEPOHTCo to Buckeye for its ownership share in each of the projects 17 through the update review procedures contained in AEPOHTCo's formula rate protocols. To 18 this end, Buckeye commits that upon request from AEPOHTCo, Buckeye will cooperate with 19 AEPOHTCo and provide such information to support Buckeye's costs as may reasonably be 20 needed to respond to an inquiry in AEPOHTCo's annual reviews that involve Buckeye costs 21 for the Transmission Projects, including Buckeye administrative, cost of capital and other costs. 22 **Q**. HOW DOES BUCKEYE PROPOSE TO PROVIDE ADEQUATE FINANCIAL AND 23 ACCOUNTING INFORMATION NEEDED FOR INTERESTED PARTIES TO

VERIFY INPUTS TO THE RATE BASE AND EXPENSE COMPONENTS OF THE ATRR UPDATES OF THE BUCKEYE FORMULA RATE?

3 A. Buckeye is not a Major electric utility and is otherwise not required to file a FERC Form No. 4 1-Electric Utility Annual Report under the Commission's regulations. Nevertheless, each year 5 as part of its ATRR annual update, Buckeye proposes to prepare and provide to interested 6 parties an "informational" version of the FERC Form No. 1 ("FF-1") containing the applicable 7 investment, expense and other financial information that will be used to populate the Formula 8 Rate. The Formula Rate contains all the page, row and column references necessary to locate 9 the appropriate inputs in the FF-1. To the extent that any needed cost information (i.e., 13-10 month balances for most components of rate base and capital structure) is not a part of the FF-11 1, or must be adjusted or allocated, the Formula Rate also identifies the source of the additional 12 data, and the allocation basis employed to determine the appropriate transmission-related 13 portion of all costs. Buckeye will provide the Informational FF-1 to PJM for posting along with 14 Buckeye's ATRR so that both documents will be available to interested parties for their timely 15 review.

16

Q.

HOW AND WHEN WILL BUCKEYE'S PTRR BE TRUED-UP TO THE ATRR?

A. True-up of each PTRR to actual costs will occur in the calendar year following the posting and
review of the ATRR. For example, Buckeye's 2019 ATRR will be posted in May 2020, and
any under or over-collection of Buckeye's 2019 ATRR will be collected or refunded,
respectively, with interest during calendar rate year 2021, similar to the process AEPOHTCo
must follow respecting its 2019 true-up. In this regard, Buckeye notes that it currently intends
to become a part owner of the first Transmission Project in the 4th quarter of 2018. If this comes
about in fact, Buckeye will produce a 2018 ATRR in May 2019. Since the time for posting a

2018 PTRR under Buckeye's proposal would have been October 2017 and has already passed,
 Buckeye will not recover its 2018 revenue requirement until 2020 when PJM collects Buckeye's
 2018 ATRR true-up, and that cost is incorporated in AEPOHTCo's 2020 rates.

4 Q. PLEASE PROVIDE ADDITIONAL DETAILS ON THE LAYOUT OF THE FORMULA 5 RATE TEMPLATE.

A. The first section of the Formula Rate Template (the "TCOS" tab of the Excel workbook)
summarizes the cost of service calculation. Page 1 of Exhibit No. BPI-4 summarizes the PTRR
and the carrying charge rate that would apply to a Transmission Project if PJM were to
determine that the costs should be recovered under PJM OATT Schedule 12.

10 Page 2 details components of rate base, reflecting Buckeye's gross investment in 11 Transmission Projects, less accumulated depreciation, plus an allocation of Buckeye's general 12 plant based on projected Buckeye functional wages and salaries ("labor") and applicable 13 components of working capital. There are line items in the Formula Rate that are never expected 14 to apply to Buckeye, but which have been retained to preserve consistency of the line numbering 15 and source references that exist under the AEPOHTCo formula rate. (Such inapplicable line 16 items include state and federal income taxes, deferred income taxes, and long-term debt 17 hedging.)

Page 3 details projected expenses for O&M, administrative and general ("A&G"), depreciation, and taxes. The total revenue requirement, consisting of expenses plus allowed return on rate base, is shown at the bottom of page 3. O&M expenses will consist of charges from AEPOHTCo based on the rate per dollar of gross plant investment determined pursuant to the Services Agreement between AEPOHTCo and Buckeye that the Commission accepted for filing in Docket No. ER18-1486-000, which Mr. Grooms describes further in his testimony. A&G costs will reflect a transmission labor share of Buckeye administrative and general expenses. Because AEPOHTCo will reduce the O&M expenses included in its formula rate by the amounts charged to Buckeye, collection of Service Agreement O&M charges in Buckeye's Formula Rate will restore full O&M cost recovery and will not result in any double recovery of O&M expenses for the Transmission Projects.

6 The allowed return on Buckeye's Rate Base reflects Buckeye's capital structure (on 7 page 4) composed of long-term debt and proprietary (e.g., equity) capital, Buckeye's long-term 8 debt cost rate, and a 10.35% return on equity ("ROE") that includes a 50 basis-point RTO 9 participation bonus. Presently, AEPOHTCo's rates include a 10.35% ROE arising from the 10 proceedings in Docket No. EL17-13. In that proceeding, the so-called "AEP Parties" have 11 reached a settlement with certain parties that provides for a base ROE of 9.85%, effective as of 12 January 1, 2018. However, certain parties, including the Commission's staff, have opposed the 13 settlement. Administrative Law Judge Steven L. Sterner on May 22, 2018, issued a Report of 14 Contested Settlement, an order terminating settlement judge procedures was issued on May 31, 15 2018, and a final determination now awaits Commission action. If a different ROE is ultimately 16 approved by the Commission for AEPOHTCo, Buckeye commits to use the approved ROE in 17 its Formula Rate updates and true-up adjustments going forward from the date such change is 18 made effective for AEPOHTCo.

19The development of major allocation factors and the weighted average cost of capital20("WACC") are shown on page 4. Notes referenced throughout the Formula Rate are detailed21on page 5.

Q. ARE THERE PARTS OF THE FORMULA RATE OTHER THAN THOSE YOU HAVE IDENTIFIED THAT ARE UNLIKELY TO BE APPLICABLE TO BUCKEYE?

1 Α. Yes. The full Formula Rate, in spreadsheet form, is composed of the five pages I have discussed 2 and nineteen worksheets detailing various portions of the costs of service and necessary 3 information. Worksheets that are retained for symmetry, but not expected to apply to Buckeye, 4 include: worksheets B, B-1 and B-2 dealing with accumulated deferred income taxes; 5 worksheet D regarding credits due to independent power producers for AEP system 6 transmission upgrades; and worksheet G concerning development of the effective state income 7 tax rate. There are also two "Reserved" worksheets (I and L) in the formula as used by 8 AEPOHTCo that are maintained in the Buckeye Formula Rate. Finally, Worksheet K ("WS-K 9 TRUE-UP RTEP RR") remains in the AEPOHTCo formula rate, and has been retained in the 10 Buckeye Formula Rate, but is no longer needed because Worksheet J is used to calculate the 11 projected Schedule 12 (RTEP) project revenue requirements as well as the actuals.

Q. WILL THERE BE COST SAVING BENEFITS FROM BUCKEYE'S MINORITY OWNERSHIP IN THE AEPOHTCO TRANSMISSION FACILITY PROJECTS?

A. Yes. The total revenue requirements of both Buckeye and AEPOHTCo for Transmission
 Projects will be lower than would otherwise be the case if each of these projects were owned
 exclusively by AEPOHTCo. This result can be expected because Buckeye has a lower weighted
 average cost of capital than does AEPOHTCo due to a higher percentage of long-term debt, and
 Buckeye is exempt from state and federal income tax liability.

Q. PLEASE DESCRIBE WHAT EXHIBIT BPI-5 SHOWS ABOUT THE EXPECTED POTENTIAL REVENUE REQUIREMENT FOR THE FIRST TRANSMISSION PROJECT AND THE DIFFERENCES BETWEEN THE BUCKEYE AND AEPOHTCO FORMULA RATES.

1 Α. Page 1 of Exhibit No. BPI-5 shows that the illustrative 2019 Transmission Project revenue 2 requirement for Buckeye is \$330,840. That amount is shown on page 2 of Exhibit No. BPI-5, 3 at Line No. 21, and is directly related to Buckeye's 40% share (\$2,680,000) of the \$6,700,000 4 expected cost of the first Transmission Project (Mt. Sterling - Zanesville 69kV Circuit, PJM 5 Upgrade ID: S1514.1). The "Gross Plant" section of the "Rate Base Calculation" page of the 6 Formula Rate also shows that Buckeye has about \$2 billion of production plant, about \$17 7 million of other transmission plant (GSUTs) and about \$35 million of general and intangible 8 plant. The next section of page 2 details accumulated depreciation and amortization by 9 function, and the third section summarizes net plant, which is gross plant less accumulated 10 depreciation.

11 The line numbers, item descriptions, source and formula references, and allocation 12 factors shown in red font are new or changed from those contained in AEPOHTCo's formula 13 The changes were made so that the GSUTs can be completely excluded, while the rate. 14 Transmission Project costs can be directly assigned to the transmission function. The gross 15 plant and accumulated depreciation values on page 2 come from Worksheet A, where the 13-16 month balances and averages for each component of plant-in-service are detailed. Several new 17 plant-in-service detail columns (red font) have been added to Worksheet A to detail the monthly 18 and 13-month average balances for line items added to page 2 of the Formula Rate.

19 Q. PLEASE CONTINUE WITH YOUR DESCRIPTION OF PAGE TWO OF EXHIBIT 20 NO. BPI-5.

A. The next section of page 2 of Exhibit No. BPI-5 shows deferred tax adjustments to rate base.
 Since Buckeye is exempt from state and federal income taxes, this section will contain zeros.
 The rate base section concludes with other rate base items. It is unlikely that Buckeye will incur

1 any costs for several of these components. The cash working capital allowance is based only 2 on Transmission Project O&M. Separate rows for Transmission Project and other transmission 3 related materials and supplies ("M&S") costs have been provided so that no M&S costs will be 4 allocated to Transmission Projects unless AEPOHTCo and Buckeye agree that Buckeye will 5 maintain M&S stock for Transmission Projects. Details of the working capital components 6 other than cash allowance are found on Worksheet F.

7 Q. PLEASE REVIEW PAGE 3 OF THE FORMULA RATE.

8 A. Page 3 of Exhibit No. BPI-5 delineates the components of expenses and calculates return on 9 rate base and the total revenue requirement. Expenses are detailed in the following categories: 10 (1) O&M expenses and administrative and general ("A&G") expenses on lines 69 through 92; 11 (2) depreciation and amortization expenses on lines 93 through 99; (3) taxes other than income 12 taxes on lines 100 through 107; and (5) income taxes, which are expected to continue to be 13 inapplicable to Buckeye, on lines 108 through 121. Taxes Other than Income Taxes are detailed 14 by category in Worksheet H-1, and Property Taxes are allocated in Worksheet H. Because 15 Buckeye will directly assign Ohio Property Taxes to the functions, and separately to 16 Transmission Projects and other transmission plant, the Ohio Property Tax allocation routine in 17 the Buckeye Formula Rate has be altered from that in the AEPOHTCo formula rate.

18 Finally, return on rate base, three potential rate base adjustments that may apply to some AEP 19 affiliates, but that are likely to remain zero for Buckeye, and the total revenue requirement are 20 found on lines 122 through 126.

21

0. PLEASE REVIEW PAGES 4 AND 5 OF THE FORMULA RATE.

22 A. The development of certain allocation factors and the weighted average cost of capital 23 ("WACC") are detailed on page 4. Page 5 is devoted to detailing the "Notes" that are referred

1		to throughout the Formula Rate. Changes to the Notes under the current AEPOHTCo formula
2		rate are shown in red font and strikeout. Of particular importance on page 4 is the development
3		of the wages and salaries ("W/S") allocation factor. Buckeye will only include in transmission
4		functional wages and salaries the labor expense for employees that spend time directly on
5		Buckeye's Transmission Project-related efforts. The payroll transmission payroll allocation
6		shown on line 134 is an estimate for illustrative purposes, as Buckeye did not assign any W/S
7		expense to transmission in 2017, the year underlying the illustrative costs in Exhibit No. BPI-
8		5.
9	Q.	DO YOU HAVE ANY FURTHER GUIDANCE REGARDING THE FORMULA RATE
10		LAYOUT?
11	A.	Yes. To anyone reviewing the Formula Rate I recommend that attention be paid to the columns
12		where references are provided that identify the sources of data and formulas used to make
13		calculations. Those references will be helpful in directing the reviewer to pages, lines and
14		columns of the FF-1 report, and the worksheets where much of the base level cost data is input
15		and many of the calculations are made. Data input cells throughout the Formula Rate are shaded
16		light blue to highlight cells that can change with each update.
		ight one to inglinght constitut can change with cach aparte.

17 Q. DOES THAT COMPLETE YOUR TESTIMONY?

18 A. Yes, it does.

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

BUCKEYE POWER, INC.

Docket No. ER18-2110-000

AFFIDAVIT

)

I certify that the attached testimony in these proceedings and the exhibits annexed hereto were prepared by me or under my direct supervision or were taken from other sources noted. The answers contained in my testimony are true and correct to the best of my knowledge, information, and belief.

Subscribed and sworn before me this <u>26^{+/-}</u>day of July, 2018 CHRISTIAN_MOORE Notary Public, State of Ohio My Commission Expires July 24, 2021

Notary Public

My Commission expires:

July 24, 2021

D. W. Bethel Expert Witness Qualifications

Professional Positions Held

Bethel Electric Rate Consulting, LLC – November 2010 – Present

President and Principle Consultant of independent consulting business

American Electric Power Service Corporation – August 1980 through October 2010

Managing Director, Regulated Tariffs - 5 years Director, Transmission and Interconnection Services - 5 years Manager, Interconnection Agreements - 7 years Principle Engineer, Interconnection Agreements - 3 years Sr. Engineer, Interconnection Agreements - 2 years Sr. Rate Analyst, Rate Research and Design - 8 years

Indiana Michigan Power Company – July 1973 to August 1980

Sr. Rate Analyst, I&M HQ - 2 years Rate Analyst, I&M HQ - 2 years Marketing and Customer Service Engineer, Muncie Division - 3 years

Professional Licenses, Associations and Education

Professional Engineer	Professional Associations	Education
Indiana PE No. 18398	NSPE and OSPE	University of Evansville - BSEE
Ohio PE No. 46067	IEEE Life Member	Ohio State Univ Mgmt. Cert.

Regulatory Proceedings and Expert Testimony Experience

Federal Energy Regulatory Commission

Docket No.	Subject of Testimony
NJ18-9	Reactive Power Service from Buckeye Power Inc, Greenville Plant
ER18-554	Reactive Power Service from Carville Energy Center (LS Power sub)
NJ17-19	Reactive Power Service from National Power CoOp. R.P. Mone Plant
ER17-1743 sub)	Reactive Power Service from Doswell Limited Partnership (LS Power
ER17-1498 And -1499	Reactive Power Service from Rockford Power, LLC and Rockford Power II, LLC generating sources in PJM (LS Power Subsidiaries)
ER17-274 & EL16-118	Revenue Requirements for Reactive Power Service from GenOn Energy Management, LLC (NRG subsidiary) generating fleet in PJM
EL17-4	Illinois Power Generating Co. (Dynegy sub) Reactive Power Service case
EL16-119	Dynegy Midwest Generation Reactive Power Service proceeding
ER16-1530	Revenue Requirements for Reactive Power Service from hydro-electric generating sources operated in PJM by Brookfield Renewables subsidiary.
ER15-1499	KCP&L Co Re: Independence, Mo. Municipal Utility Transmission Service
ER15-1464	Support transmission formula rate for Rochelle Municipal Utilities, in a

& 1465 joint filing by PJM and RMU Re: RMU Transmission Owner integration. Federal Energy Regulatory Commission – Continued

Docket No.	Subject of Testimony
EL10-49	Support Old Dominion Electric Cooperative during settlement and hearing phases of the case involving underground transmission cost recovery.
ER14-279	Support Guttenberg Iowa Municipal Utility in settlement of disputed interconnection service terms, conditions and rates.
ER12-2273	Supported Wisconsin and Michigan Municipal Group in challenge and settlement of <i>pro forma</i> interconnection agreement case.
EL11-54	Supported Complaint of Buckeye Power, Inc. Re: voltage-differentiated transmission rate design used by American Transmission Systems, Inc. Submitted Direct and Rebuttal Testimony. Final Order upheld Initial Decision finding rate not just and reasonable and required changes as proposed.
ER10-355	Support Formula Rate and Protocols for subsidiaries of AEP Transmission Co. LLC, a new line of companies created by AEP to own and operate transmission in the PJM and SPP RTO. Filed testimony and led successful settlement effort.
ER09-1279	Support changes in the AEP East Companies' Transmission Pooling Agreement, including financial impacts on the AEP Operating Companies. Case settled.
ER08-1329	Support Formula Rate and Protocols for Transmission Service provided by AEP Companies in the PJM RTO. Filed testimony and led successful settlement effort.
ER07-1069	Support Formula Rate and Protocols for Transmission Service provided by AEP Companies in the SPP RTO. Filed testimony and led successful settlement effort.
ER05-751	Support transmission rates for AEP East Companies based on Standard Filing Requirements, including Historic and Projected Cost-of-Service Schedules.
EL05-121	Support for a Highway/Byway Rate Design covering the PJM and MISO Super Region, including impacts on customers throughout the Super Region, and commenting on the alternatives sponsored by other parties.
EL05-74	Affidavit in support of a PJM OATT rate schedule proposed by AEP, Exelon and Dayton P&L to recover PJM RTO system expansion costs billed to the companies during the period before integration of the companies and several new PJM Zones.
ER03-765	Answering Testimony regarding cost of providing Reactive Supply and Voltage Control Service from a new generating plant.
ER03-262	Support for rates and the methods used to develop such rates proposed by the then existing and soon to be PJM Transmission Owners, as a number of former Alliance RTO participants, including AEP, prepared to join the PJM RTO.
ER03-242	Support for Cost-of-Service and Rates for Transmission and Ancillary Services for the AEP East Operating Companies under the AEP Open Access Transmission Tariff (OATT).
EL02-111,	Supported transitional RTO rate design, and Tariff Sheets for the PJM RTO OATT in the FERC proceeding involving the elimination of point-to-point transmission service charges on transactions crossing the PJM-MISO boundary.

Federal Energy Regulatory Commission – Continued

Docket No.	Subject of Testimony
EL01-73	Rebuttal Testimony regarding inappropriateness of Network Transmission Service credits for facilities owned by certain East Texas Cooperatives.
RT01-88	In a Compliance filing by the Alliance RTO Companies, supported rates, terms and conditions for the Alliance RTO OATT, including a transitional rate to eliminate rate pancaking between the Alliance RTO and MISO.
ER01-2995	Supported cost-of-service and rates for transmission and ancillary services for the AEP East Operating Companies under the AEP Open Access Transmission Tariff.
ER98-2786	Supported rates and tariffs for transmission and ancillary services for three regions (East, SPP and ERCOT) in AEP-CSW merger proceedings.
ER93-540	Supported cost-of-service and rates for transmission and ancillary services by AEP in landmark case initially defining the meaning of "Open Access".

State Regulatory Proceedings

<u>State</u>	Case No.	Subject of Testimony
KY	2009-00459	Support for adoption of an RTO-related cost tracker.
VA	2009-000030	Support for retail class revenue requirements and rate design.
VA	2009-00038	Support for adoption of an RTO-related cost tracker.
VA	2009-00068	Support for adoption of retail rate riders for Emergency and Economic Demand Response.
MI	U-16180	Support for adoption of an RTO-related cost tracker.
OH	93-314-el-air	Witness supporting cost of service and rates for street and security lighting
TN	1986-7472	Direct and Rebuttal testimony supporting retail COS and rate design.
WV	84-191-E-42T	Direct and Rebuttal testimony supporting retail COS and rate design.
KY	84-9061	Testimony supporting retail cost of service and rate design.
TN	84-7308	Testimony supporting retail cost of service and rate design.
MI	U-7856	Testimony supporting retail class cost of service.
KY	83-8871	Testimony supporting rates for a time-of-day rate experiment.
KY	83-8734	Testimony supporting retail cost of service and adjustments for business risk in designing rates.
OH	82-1058-el-air	Testimony supporting retail class cost of service.
KY	82-8429	Testimony supporting retail class cost of service.
MI	U-6148	Testimony supporting retail class cost of service.

Formula Rate TCOS

		Transmission Cost	ye Power, Inc. t of Service Formula Rate jected FERC Form 1 Data c.	Twe	Ive Months Ended		
Line						Transmission	
<u>No.</u> 1	REVENUE REQUIREMENT (w/o incentives)	(In 126)	Tatal	A.I	cator	Amount #DIV/0!	—
2	REVENUE CREDITS	(Worksheet E Ln 8) (Note A)	Total	DA	1.00000	\$	-
3	Facility Credits under PJM OATT Section 30.9	(Worksheet E Ln 9) (Note X)				\$	-
4	REVENUE REQUIREMENT For All Company Facilities	(In 1 less In 2 plus In 3)				#DIV/0!	_
5	ament Charges. The total non-incentive revenue requirements for t Revenue Requirement for PJM Schedule 12 Facilities (w/o incentives)	(Worksheet J/K)	otal on line 4. #N/A	DA	1.00000	#N/A	
5 6	Revenue Requirement for PJM Schedule 12 Facilities (w/o incentives)		#N/A	DA	1.00000	#N/A	
7 8	Annual Rate Monthly Rate	((ln 1 - ln 91)/((ln 42) x 100)) (ln 7 / 12)				#DIV/0! #DIV/0!	
9 10	NET PLANT CARRYING CHARGE ON LINE 7 , w/o depreciation or R Annual Rate	OE incentives (Note B) ((In 1 - In 91 - In 96)/((In 42) x 100))				#DIV/0!	
11 12	NET PLANT CARRYING CHARGE ON LINE 10, w/o Return, income t Annual Rate	axes or ROE incentives (Note B) ((In 1 - In 91 - In 96 - In 121 - In 122) /((In 42) x 10	0))			#DIV/0!	
13	ADDITIONAL REVENUE REQUIREMENT for projects w/ incentive ROE's (Note B) (Worksheet J/K)						
14		REVENUE REQUIREMENT FOR SC	HEDULE 1A CHARGES				
15 16 17	Total Load Dispatch & Scheduling (Account 561) Less: Load Dispatch - Scheduling, System Control and Dispatch Serv Less: Load Dispatch - Reliability, Planning & Standards Development						-
18	Total 561 Internally Developed Costs	(Line 15 - Line 16 - Line 17)					-

Formula Rate TCOS

Buckeye Power, Inc. Transmission Cost of Service Formula Rate Utilizing Actual/Projected FERC Form 1 Data

Buckeye Power, Inc.

		Buckey	e Power, mc.			
	(1)	(2)	(3)		(4)	(5)
		Data Sources				Total
	RATE BASE CALCULATION	(See "General Notes")	TO Total	A	locator	Transmission
ne		()	NOTE C.	_		
	GROSS PLANT IN SERVICE					
)	Production	(Worksheet A In 14.(b))	-	NA	0.00000	
)	Less: Production ARO (Enter Negative)	(Worksheet A In 14.(c))	-	NA	0.00000	
1	Transmission Projects	(Worksheet A In 42.(g) plus Ln 42.(i))	-	DA	1.00000	
2	Less: Transmission Projects ARO (Enter Negative)	(Worksheet A In 51.(h))	-	DA	1.00000	
а	Other Transmission	(Worksheet A In 42.(c) plus Ln 42.(e))	-	NA	0.00000	
a	Other Transmission ARO (Enter Negative)	(Worksheet A In 51.(g))	-	NA	0.00000	
3	Distribution	(Worksheet A In 14.(f))	-	NA	0.00000	
1	Less: Distribution ARO (Enter Negative)	(Worksheet A In 14.(g))	-	NA	0.00000	
5	General Plant	(Worksheet A In 14.(h))	-	W/S	#DIV/0!	#DIV/0!
3	Less: General Plant ARO (Enter Negative)	(Worksheet A In 14.(i))		W/S	#DIV/0!	#DIV/0!
7	Intangible Plant	(Worksheet A In 14.(j))	-	W/S	#DIV/0!	#DIV/0!
5	TOTAL GROSS PLANT	(sum Ins 19 to 27)		GP	#DIV/0!	#DIV/0!
				GTD=	#DIV/0!	
9 D	ACCUMULATED DEPRECIATION AND AMORTIZATION Production	(Merkehent Alla 20 /h))		NA	0.00000	
		(Worksheet A In 28.(b))	-			
1	Less: Production ARO (Enter Negative)	(Worksheet A In 28.(c))	-	NA	0.00000	
2	Transmisson Projects	(Worksheet A In 42.(g) plus Ln 42.(i))	-	DA	1.00000	
3	Less: Transmission Projects ARO (Enter Negative)	(Worksheet A In 66.(h))	-	DA	1.00000	
а	Other Transmission	(Worksheet A In 42.(c) plus Ln 42.(e))	-	NA	0.00000	
а	Other Transmission ARO (Enter Negative)	(Worksheet A In 66.(g))	-	NA	0.00000	
1	Distribution	(Worksheet A In 28.(f))		NA	0.00000	
5	Less: Distribution ARO (Enter Negative)	(Worksheet A In 28.(g))	-	NA	0.00000	
6	General Plant	(Worksheet A In 28.(h))		W/S	#DIV/0!	#DIV/0!
7	Less: General Plant ARO (Enter Negative)	(Worksheet A In 28.(i))	-	W/S	#DIV/0!	#DIV/0!
3	Intangible Plant	(Worksheet A In 28.(j))		W/S	#DIV/0!	#DIV/0!
9	TOTAL ACCUMULATED DEPRECIATION	(sum Ins 30 to 38)	<u> </u>			#DIV/0!
D	NET PLANT IN SERVICE					
1	Production	(In 19 + In 20 - In 30 - In 31)				
2	Transmission Projects	(In 21 + In 22 - In 32 - In 33)				
a	Other Transmission	(In 21a + In 22a - In 32a - In 33a)				
3	Distribution	(In 23 + In 24 - In 34 - In 35)				
4	General Plant	(In 25 + In 26 - In 36 - In 37)	-			#DIV/0!
5	Intangible Plant	(in 27 - in 38)				#DIV/0!
5	TOTAL NET PLANT IN SERVICE	(sum Ins 41 to 45)		NP	#DIV/0!	#DIV/0!
		· · · ·				
7						
	DEFERRED TAX ADJUSTMENTS TO RATE BASE	(Note D)				
3	Account No. 281.1 (enter negative)	(Worksheet B, In 2 & In 5.E)	-	NA		
9	Account No. 282.1 (enter negative)	(Worksheet B, In 7 & In 10.E)	-	DA		
)	Account No. 283.1 (enter negative)	(Worksheet B, In 12 & In 15.E)	-	DA		
1	Account No. 190.1	(Worksheet B, In 17 & In 20.E)	-	DA		
2	Account No. 255 (enter negative)	(Worksheet B, In 24 & In 25.E)	-	DA		
3	TOTAL ADJUSTMENTS	(sum Ins 48 to 52)				
4	PLANT HELD FOR FUTURE USE	(Worksheet A In 44.(e) & In 45.(e))		DA		
5	REGULATORY ASSETS	(Worksheet A In 51.(e))		DA		
6	UNFUNDED RESERVES (ENTER NEGATIVE) (NOTE Y)	(Worksheet A In 55.(e))		W/S	#DIV/0!	#DIV/0!
,	WORKING CAPITAL	(Note E)				
3	Cash Working Capital	(1/8 * In 78)				
	Transmission Projects Materials & Supplies	(Worksheet C, In 1.(F))		DA	1.00000	
a	Other Transmission Materials & Supplies	(Worksheet C, In 2.(F))	-	NA	0.00000	
)	A&G Materials & Supplies	(Worksheet C, In 2.(F)) (Worksheet C, In 3.(F))	-	W/S	#DIV/0!	#DIV/0!
1	Stores Expense Undistributed	(Worksheet C, In 3.(F)) (Worksheet C, In 4.(F))	-	GP	#DIV/0!	#DIV/0!
2	Prepayments (Account 165) - Labor Allocated	(Worksheet C, In 8.G)	-	W/S	#DIV/0!	#DIV/0!
23	Prepayments (Account 165) - Labor Allocated Prepayments (Account 165) - Gross Plant	(Worksheet C, In 8.G) (Worksheet C, In 8.F)	-	GP	#DIV/0!	#DIV/0!
			-			#017/0!
1	Prepayments (Account 165) - Transmission Only Prepayments (Account 165) - Unallocable	(Worksheet C, In 8.E)	-	DA	1.00000 0.00000	
5		(Worksheet C, In 8.D)	-	NA	0.00000	#DIV/0!
6	TOTAL WORKING CAPITAL	(sum Ins 58 to 65)	<u> </u>			#DIV/0!
7	IPP CONTRIBUTIONS FOR CONSTRUCTION	(Note F) (Worksheet D, In 8.B)		DA	1.00000	
3	RATE BASE (sum Ins 46, 53, 54, 55, 56, 66, 67)					#DIV/0!
ʻ	141 E BAGE (Sulli IIIS 40, 33, 34, 33, 30, 00, 07)					#017/0!

Exhibit No. BPI-4: Buckeye Formula Rate – Clean Version Page 3 of 33

Formula Rate TCOS

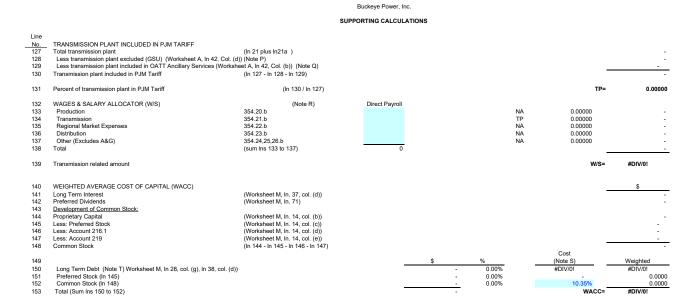
Buckeye Power, Inc. Transmission Cost of Service Formula Rate Utilizing Actual/Projected FERC Form 1 Data

Buckeye Power, Inc.

		Buck	keye Power, Inc.			
	(1)	(2)	(3)	(4)		(5)
	EXPENSE, TAXES, RETURN & REVENUE REQUIREMENTS CALCULATION	Data Sources (See "General Notes")	TO Total	Allocator		Total <u>Transmission</u>
Line		. <u></u>	<u></u>			<u></u>
No.	OPERATION & MAINTENANCE EXPENSE					
69	Production	321.80.b				
70	Distribution	322.156.b				
71	Customer Related Expense	322 & 323.164,171,178.b				
72	Regional Marketing Expenses	322.131.b				
73	Transmission Project O&M (Billed by AEPOHTCo)	Company Records				
73a	Other Transmission O&M	321.112.b Less Transmission Project O&M				
74	TOTAL O&M EXPENSES	(sum lns 69 to 73)	-			
75 76	Less: Total Account 561	(Note G) (Worksheet F, In 14.C)	· ·			
76 77	Less: Account 565 Less: Regulatory Deferrals & Amortizations	(Note H) 321.96.b (Note I) (Worksheet F, In 4.C)				
	Less. Regulatory Delenais & Amonizations	(Note I) (Worksheet F, III 4.0)	<u>-</u>			
78	Total O&M Allocable to Transmission	(Ins 73 - 75 - 76 - 77)	-	DA	1.00000	-
79	Administrative and General	323.197.b (Notes J and M)				
80	Less: Acct. 924, Property Insurance	323.185.b				
81	Acct. 928, Reg. Com. Exp.	323.189.b				
82	Acct. 930.1, Gen. Advert. Exp.	323.191.b				
83	Acct. 930.2, Misc. Gen. Exp.	323.192.b				
84	Balance of A & G	(In 79 - sum In 80 to In 83)	-	W/S	#DIV/0!	#DIV/0!
85 86	Plus: Acct. 924, Property Insurance - Transm. Projects	Worksheet F In 49.(E)	-	DA DA	1.00000	-
	Acct. 928 - Transmission Project Specific	Worksheet F In 20 (Note L)	-			-
87 88	Acct 930.1 - Only safety related ads -Direct Acct 930.2 - Misc Gen. Exp Trans	Worksheet F In 37.(E) (Note L) Worksheet F In 43.(E) (Note L)	-	DA DA	1.00000 1.00000	-
89	A & G Subtotal	(sum ins 84 to 88)	-	DA	1.00000	+DIV/0!
05	A & G Subiotal	(50111115 04 10 00)	-			#DIV/0:
90	O & M EXPENSE SUBTOTAL	(In 78 + In 89)	-		-	#DIV/0!
91	Plus: Transmission Lease Payments To Affiliates in Acct 565 (Comp			NA	0.00000	-
92	TOTAL 0 & M EXPENSE	(ln 90 + ln 91)				#DIV/0!
93	DEPRECIATION AND AMORTIZATION EXPENSE					
94	Production	336.2-6 f		NA	0.00000	_
95	Distribution	336.8.f		NA	0.00000	
96	Transmission Projects	Worksheet A In 42a Col. (g) + Col. (i)		DA	1.00000	
96a	Other Transmission	Worksheet A In 42a Col. (c) + Col. (e)	-	NA	0.00000	-
97	General	336.10.f		W/S	#DIV/0!	#DIV/0!
98	Intangible	336.1.f		W/S	#DIV/0!	#DIV/0!
99	TOTAL DEPRECIATION AND AMORTIZATION	(Ln 94+95+	-		-	#DIV/0!
		96+97+98)				
100	TAXES OTHER THAN INCOME	(Note N)				
101	Labor Related					
102	Payroll	Worksheet H In 22.(D)	-	W/S	#DIV/0!	#DIV/0!
103	Plant Related	Wedgeb and U.B. 00 (0)				
104	Property Tax Property Tax for Transmission Projects	Worksheet H In 22.(C) Worksheet H In 49.(C)	52,043	DA	1.00000	52,043
104 104a	Other Transmisaion	Worksheet H In 49.(C)	353,043	NA	0.00000	52,043
104a 105	Gross Receipts/Sales & Use	Worksheet H In 22.(F)	355,045	NA	0.00000	U
105	Other	Worksheet H In 22.(E)		GP	#DIV/0!	#DIV/0!
107	TOTAL OTHER TAXES	(sum Ins 102 to 106)	405.087	0	#01070:	#DIV/0!
		(6411110-162-16-166)	100,001			<i>"</i> BITTO.
108	INCOME TAXES	(Note O)				
109 110	T=1 - {[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)} = EIT=(T/(1-T)) * (1-(WCLTD/WACC)) =		0.00% #DIV/0!			
110			#DIV/0!			
112	where WCLTD=(In 150) and WACC = (In 153) and FIT, SIT & p are as given in Note O.					
113	GRCF=1 / (1 - T) = (from In 109)					
114	Amortized Investment Tax Credit (enter negative)	(FF1 p.114, In 19.c)				
115	Excess Deferred Income Tax	(Note U)		DA		
116	Tax Effect of Permanent and Flow-Through Differences	(Note U)		DA		
117	Income Tax Calculation	(In 110 * In 122)	#DIV/0!			#DIV/0!
118	ITC adjustment	(in 113 * in 114)	#D1V/0:	GP	#DIV/0!	#DIV/0!
119	Excess Deferred Income Tax	(In 113 * In 115)		GF	#010/0:	#010/0:
120	Tax Effect of Permanent and Flow-Through Differences	(In 113 * In 116)	-			
	-				-	
121	TOTAL INCOME TAXES	(sum Ins 117 to 120)	#DIV/0!			#DIV/0!
122	RETURN ON RATE BASE (Rate Base*WACC)	(In 68 * In 153)	#DIV/0!			#DIV/0!
123	INTEREST ON IPP CONTRIBUTION FOR CONST. (Note F) (Worksheet	et D, In 2.(B))	-	DA	1.00000	-
124	(Gains) / Losses on Sales of Plant Held for Future Use (Worksheet N, Ir	n 4, Cols. ((F) & (H))				-
125	Tax Impact on Net Loss / (Gain) on Sales of Plant Held for Future Use	(In 124 * In110)	#DIV/0!			#DIV/0!
126	TOTAL REVENUE REQUIREMENT		#DIV/0!		-	#DIV/0!
	(sum Ins 92, 99, 107, 121, 122, 123, 124, 125)				=	

Formula Rate TCOS

Buckeye Power, Inc. Transmission Cost of Service Formula Rate Utilizing Actual/Projected FERC Form 1 Data



Formula Rate TCOS

Buckeve Power, Inc. Transmission Cost of Service Formula Rate Utilizing Actual/Projected FERC Form 1 Data

> Buckeye Power, Inc Notes

General Notes: a) References to data from Worksheets are indicated as: Worksheet X. Line#.Column.X

- Revenue credits include: Α
 - 1) Forfeited Discounts 2) Miscellaneous Service Revenues

See Worksheet E for details

2) Insicial rous set work revenues.
3) Rential revenues earned on assets included in the rate base.
4) Revenues for associated business projects provided by employees whose labor and overhead costs are in the transmission cost of service.
5) Other electric revenues.

b) Other electric revenues.
6) Revenues for grandfathered PTP contracts included in the load divisor.
7) If Buckeye has any directly assigned transmission facilities, the revenue credits in the formula rate shall include all revenues associated with those directly assigned transmission facilities, irrespective of whether the loads of the customer are included in the formural rate divisor; provided however, such addition to revenue credits shall not be reflected if the costs of such directly assigned transmission facilities are not included in the transmission plant balances on which the formula rate ATRR is based.

The annual and monthly net plant carrying charges on page 1 are used to compute the revenue requirement for RTEP sponsored upgrades or those projects receiving approved incentive-ROE's. Interest will be calculated based on Worksheet Q and any over under recovery will be filed and posted as part of the informational filing. в

С Transmission Plant Balances in this study are projected or actual average beginning of year end of year balances

- The total-company balances shown for Accounts 281, 282, 283, 190 only reflect ADIT that relates to utility operations. The balance of Account 255 is reduced by prior flowthrough and is completely excluded if the utility chose to utilize amortization of tax credits against FIT expense. An exception to this is pre-1971 ITC balances, which are required to be taken as an offset to rate base. Account 281 is not allocated. In compliance with FERC Rulemaking the calculation of ADIT in the annual projection will be performed in accordance with IRS regulation Section1.167(I)-((h)(6)(ii). RM02-7000, Asset Retirement Obligation deferratis have been removed from ratebase. Transmission ADIT allocations are shown on WS B. The company will not include the ADIT portion of deferred hedge gains and losses in rate base. Detailed balances for the projected or actual period, distinguished between utility and non-utility balances, will be filed and posted as part of the information. D
- the information filing. Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission, as shown on line 78. It excludes: 1) Load Scheduling & Dispatch Charges in account 661 that are collected in the OATT Ancillary Services Revenue, as shown on line 75. 2) Costs of Transmission of Electricity by Others, as described in Note H. Е
- 3) The impact of state regulatory deferrals and amortizations, as shown on line 77
- All A&G Expenses, as shown on line 89.

Consistent with Paragraph 657 of Order 2003-A, the amount on line 67 is equal to the balance of IPP System Upgrade Credits owed to transmission customers that made contributions toward the construction of System upgrades, and includes accrued interest and unreturned balance of contributions. The annual interest expense is included on line 123.

G

.1

L

0

- Removes from the cost of service the Load Scheduling and Dispatch expenses booked to accounts 561.1 through 561.8. Expenses recorded in these accounts, with the exception of 561.4 & 561.8 (lines 16 & 17 above) are recovered in Schedule 1A. OATT ancillary services rates. See Worksheet F. lines 5 through 14, for descriptions and the Form 1 Source of these accounts' bala
- Removes cost of transmission service provided by others to determine the basis of cash working capital on line 78. To the extent such service is incurred to provide the PJM service at issue, e.g. lease payments to affiliates, such cost is added back on line 91 to determine the total O&M collected in the formula. The amounts on line 91 is also excluded in the calculation of the FCR percentage calculated on lines 6 through 12. н

The company records referenced on line 91 is the Buckeye Power, Inc. general ledger

Removes the impact of state regulatory deferrals or their amortization from Transmission O&M expense

General Plant and Administrative & General expenses, other than in accounts 924, 928, and 930, will be functionalized based on the Wages & Salaries "W/S" allocator. The allocation basis for accounts 924. 928 and 930 are separately presented in the formula. A change in the allocation method for an account must be approved via a 205 filing with the FERC

К Reserved for future use

- Expenses recorded in FERC Accounts 928 (Regulatory Commission Expense), 930.1 (Safety Related Advertising) and 930.2 (Miscellaneouse General Expenses) that are not directly related to or properly allocable to transmission service will be removed from the TCOS. If Buckeye includes any expenses booked to these accounts in future ATRR updates, Buckeye must provide supporting information demonstrating that the underlying activities are directly related to providing transmission service.
- Recoverable PBOP expense is based on actual annual PBOP costs. The PBOP amounts are included in the Administrative and General total, and are based on current year expenses. The annual actuarial valuation report supporting the derivation of the PBOP expense, along with an explanation of PBOP derivation process, is submitted during the formula rate annual update. м
- Ν Includes only FICA, unemployment, highway, property and other assessments charged in the current year. Gross receipts, sales & use and taxes related to income are excluded.

The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p =

the percentage of federal income tax deductible for state income taxes. See Worksheet G for the development of the Company's composite SIT. A utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.f)

(In 114) multiplied by (1/1-T). If the applicable tax rates are zero enter 0. Inputs Required: FIT

T =		
T=		

0.00% (State Income Tax Rate or Composite SIT, Worksheet G))

SIIE 0.00% (State income tax rate or Composite SII. Viorksheet (5)) p = 0.00% (percent of federal income tax deductible for state purposes) The formula rate shall reflect the applicable state and federal statutory tax rates in effect unity that rates chall unit charges are applicable. If the statutory tax rates change during such period, the effective tax rates used in the formula shall be weighted by the number of days the pre-change rate and post-change rate each is in effect. Removes plant excluded from the OATT because it does not meet the PJM's definition of Transmission Facilities or is otherwise ineligible to be recovered under the OATT.

Removes transmission plant (e.g. step-up transformers) included in the development of OATT ancillary service rates and not already removed for reasons indicated in Note P. Q

R Includes functional wages & salaries by Buckeye Staff

s Long Term Debt cost rate = Long-Term Interest (In 141) / Long-Term Debt (In 150). Preferred Stock cost rate = preferred dividends (In 142) / preferred outstanding (In 151). but form boot cost take - Early from matches (in For). Early form matches (in For), Early form boot (in For), Early for the for the form boot (in For), Early for), Early for the for the for the for) The amount of eligible hedging gains or losses included in total interest expense is limited to five basis points of the capital structure. Details and calculations of the weighted average cost of capital are shown on Worksheet M. Eligible Hedging Gains and Losses are computed on Worksheet M. The unamortized balance of eligible hedge gains/losses and related ADIT amounts shall not flow through the formula rate.

- The cost rates for long-term debt shall include interest expense and related periodic expenses (such as remarketing and letter of credit fees) as recorded in FERC Account 427 or 430, amortization of issuance costs (including insurance) and discounts as recorded in FERC Account 428, issuance premiums as recorded in FERC Account 429 and losses or gains on reacquired debt as recorded in FERC Account 429, issuance premiums as recorded in FERC Account 429 and losses or gains on reacquired debt as recorded in FERC Account 429, issuance premiums as recorded in FERC Account 429 and losses or gains on reacquired debt as recorded in FERC Account 429, issuance premiums as recorded in FERC Account 429 in the term of the second 429 and losses or gains on reacquired debt as recorded in FERC Account 429, issuance premiums as recorded in FERC Account 429 in the term of the second 429 and losses or gains on reacquired debt as recorded in FERC Account 429, issuance premiums as recorded in FERC Account 429 in the term of term of
- υ the differences in the income taxes due under the Federal and State tax calculations that are not the result of a timing difference, including but not limited to depreciation related to capitalized AFUDC equity and meals and entertainment deductions. The Tax Effect of Flow-Through differences captures current tax expense related to timing differences on items for which tax deductions were used to reduce customer rates through the use of flow-through accounting in a prior period. Transmission balances for the projected or acclude period, will be filed and posted as part of the informational filing.
- Cash investment in prepaid pension and benefits recorded in FERC Account 165 is permitted to be included in the formula. A labor expense allocation factor will be used to allocate total company costs. All other prepayments recorded in FERC Account 165 are directly assigned to the transmission function, allocated or excludable balances detailed on Worksheet C. The formula rate shall allocate property tax expense based on the as filed net plant cost allocation method detailed on Worksheet H.

- Under Section 30.9 of the PM OATT, a network customer that owns existing transmission facilities that are integrated with the Transmission Provider's Transmission System may be eligible to receive consideration either through a billing credit or some other mechanism. Calculation of any credit under this subsection, pursuant to approval by FERC for inclusion in this formula rate for collection on behalf of the network customer, shall be address Customer's Service Agreement or any other agreement between the parties. ed in either the N
- The cost of service will make a rate base adjustment to remove unfunded reserves associated with contingent liabilities recorded to Accounts 228.1-228.4 from rate ba

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet A Rate Base Buckeye Power, Inc.

Twelve Months Ended

0

					Gr	oss Plant In Service				
Line No	Month (a)	Production (b)	Production ARO (c)	Transmission (d)	Transmission ARO (e)	Distribution (f)	Distribution ARO (g)	General (h)	General ARO (i)	Intangible (j)
	(Note A)	FF1, page 205 Col.(g) & pg. 204 Col. (b), In 46	FF1, page 205&204, Col.(g)&(b), Ins 15,24,34,44	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 58	Acct. 359.1 FF1, page 207 Col.(g) & pg. 206 Col. (b), In 57	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 75	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 74	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 99	Acct. 399.1 FF1, page 207 Col.(g) & pg. 206 Col. (b), In 98	FF1, page 205 Col.(g) & pg. 204 Col. (b), In 5
1 2 3	December Prior to Rate Year January February									
4 5 6	March April May									
7 8	June July August									
10 11	September October									
12 13	November December of Rate Year Average of the 13 Monthly Balances									
14	Average of the 13 Monthly Balances	-	-			-				

					Accur	nulated Depreciation				
Line No	Month (a)	Production (b)	Production ARO (c)	Transmission (d)	Transmission ARO (e)	Distribution (f)	Distribution ARO (g)	General (h)	General ARO (i)	Intangible (j)
	(Note A)	FF1, page 219, Ins 20-24, Col. (b)	Company Records (Included in total in Column (b))	FF1, page 219, ln 25, Col (b)	Company Records I. (Included in total in Column (d))	FF1, page 219, In 26, Co (b)	Company Records I. (Included in total in Column F (f))	FF1, page 219, ln 28, Col. (b)	Company Records (Included in total in Column (h))	FF1, page 200, ln 21, Col. (b)
15	December Prior to Rate Year		(//	()	<.,,	()	())	()	(//	()
16	January									
17	February									
18	March									
19	April									
20	May									
21	June									
22	July									
23	August									
24	September									
25	October									
26	November									
27	December of Rate Year									
28	Average of the 13 Monthly Balances	-	-	-	-		-	-	-	-

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet A Rate Base Buckeye Power, Inc.

Twelve Months Ended

0

Line No	Month	OATT Ancillary Services Plant In Service	OATT Ancillary Services Accumulated Depreciation	Excluded Plant - Plant In Service (GSU)	Excluded Plant - Accumulated Depreciation (GSU)	Transmission Projects Added During 0	Accumulated Depreciation for Transmission Projects Added During 0	Transmission Projects Added Prior to 0	Accumulated Depreciation for Transmission Project: Added Prior to 0
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	(Note A)	Company Records (included in total in column (d) of gross plant above)	Company Records (included in total in t column (b) of accumulated depreciation above)	Company Records	Company Records	Company Records	Company Records	Company Records	Company Records
29 30	December Prior to Rate Year		-			-			
30	January February		-						
32	March								
33	April					_			
34	May								
35	June	-				-			
36	July					-			
37	August	-	-			-			
38	September	-				-			
39	October	-	-			-			
40	November					-			
41	December of Rate Year	-	-				-		
42	Average of the 13 Monthly Balance	-	-	-	-	-	-	-	-
42a	Depreciuation Expense during Year		-		-		-		-
43	Transmission Accum Depreciation net of GSU						Transmission ARO	Other Transmission ARO	Transmission Projects ARO
							(f)	(g)	(h)
			Balance @ December	Balance @ December				Company Reecords	Company Reecords
Plant Held	For Future Use	Source of Data	<u>31,</u>	<u>31, -1</u>	Average Balance for		December Prior Year		
				31, -1			December Prior Year	-	
	(a)	(b)	(c)	(d)	(e)		January	1	1
44	(a) <u>Plant Held For Future Use</u>	(b) FF1, page 214, In 47, Col. (d)	(c)	<u>31, -1</u> (d)			January February	-	-
	Plant Held For Future Use	FF1, page 214, In 47, Col. (d)	(c)	<u>31, -1</u> (d)			January February March	-	-
44 45			(c)	<u>31, -1</u> (d)			January February March April	-	-
45	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44	FF1, page 214, In 47, Col. (d)	(c)	<u>31, -1</u> (d)			January February March April May		
45	Plant Held For Future Use <u>Transmission Plant Held For Future</u> (Included in total on line 44 (Assets and Liabilities Approved for Recovery In Ratebas	FF1, page 214, In 47, Col. (d) Company Records - Note 1	(C)	<u>31,-1</u> (d)			January February March April May June		
45 Regulatory	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44	FF1, page 214, In 47, Col. (d) Company Records - Note 1	(C)	<u>31,-1</u> (d)			January February March April May June July	-	
45 <u>Regulator</u> 46	Plant Held For Future Use <u>Transmission Plant Held For Future</u> (Included in total on line 44 (Assets and Liabilities Approved for Recovery In Ratebas	FF1, page 214, In 47, Col. (d) Company Records - Note 1	(C)	<u>31, -1</u> (d)			January February March April May June July August		
45 Regulatory 46 47	Plant Held For Future Use <u>Transmission Plant Held For Future</u> (Included in total on line 44 (Assets and Liabilities Approved for Recovery In Ratebas	FF1, page 214, In 47, Col. (d) Company Records - Note 1	(C)	<u>311</u> (d)			January February March April May June July August September		
45 Regulatory 46 47 48	Plant Held For Future Use <u>Transmission Plant Held For Future</u> (Included in total on line 44 (Assets and Liabilities Approved for Recovery In Ratebas	FF1, page 214, In 47, Col. (d) Company Records - Note 1	(C)	<u>311</u> (d)			January February March April May June July July August September October		
45 Regulatory 46 47	Plant Held For Future Use <u>Transmission Plant Held For Future</u> (Included in total on line 44 (Assets and Liabilities Approved for Recovery In Ratebas	FF1, page 214, In 47, Col. (d) Company Records - Note 1	(C)	<u>311</u> (d)			January February March April May June July August September		
45 <u>Regulatory</u> 46 47 48 49	Plant Held For Future Use <u>Transmission Plant Held For Future</u> (Included in total on line 44 (Assets and Liabilities Approved for Recovery In Ratebas	FF1, page 214, In 47, Col. (d) Company Records - Note 1	(C)	<u>31,-1</u> (d)		-	January February March April May June July August September October November		
45 <u>Regulator</u> 46 47 48 49 50 51	Plant Held For Future Use <u>Transmission Plant Held For Future</u> (Included in total on line 44 <u>Assets and Liabilities Approved for Recovery In Ratebas</u> Note: Regulatory Assets & Liabilities can only be included in ratebase	FF1, page 214, In 47, Col. (d) Company Records - Note 1	(c) ERC.	(d)		:	January February March April May June July August September October November December Year 13 Month Average	- - - - - - - - - - - - - - - - - - -	
45 <u>Regulator</u> 46 47 48 49 50 51	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 (Assets and Liabilities Approved for Recovery In Ratebase Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FB <u>Source of Data</u>	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May June July August September October November December Year 13 Month Average Amortization of Transmission ARO	ARO Amort.	ARO Amort.
45 <u>Regulator</u> 46 47 48 49 50 51 <u>Unfunded</u> 52	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 (Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebas	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE	(c) ERC.	(d)	(e) - - - - - - - - - -	<u>-</u>	January February March April May June July August September October November December Year 13 Month Average Amortization of Transmission ARO (f)		
45 <u>Regulator</u> 46 47 48 49 50 51 <u>Unfunded</u> 52 53	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	<u>-</u>	January February March April May June July July August September October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year	ARO Amort. (g)	ARO Amort. (h)
45 <u>Regulator</u> 46 47 48 49 50 51 <u>Unfunded</u> 52 53 54	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May June July August September October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year January	ARO Amort. (g)	(h)
45 <u>Regulator</u> 46 47 48 49 50 51 <u>Unfunded</u> 52 53	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May June July July August September October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year	ARO Amort. (g)	ARO Amort. (h)
45 <u>Regulator</u> 46 47 48 49 50 51 <u>Unfunded</u> 52 53 54 55	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May June July August September October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year January February	ARO Amort. (g)	ARO Amort. (h)
45 Regulator 46 47 48 49 50 51 Unfunded 52 53 54 55 56 56 58	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May June July July August September October October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year January February March	ARO Amort. (g)	ARO Amort. (h)
45 Regulation 46 47 48 49 50 51 51 51 52 53 54 55 56 56 57 58 59	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May June July August September October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year January February March April May June	ARO Amort. (g)	ARO Amort. (h)
45 Regulator 46 47 48 49 50 51 Unfunded 52 53 54 55 56 67 58 59 60	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May June July August September October November December Year 13 Morth Average Amortization of Transmission ARO (f) December Prior Year January February March April May June July	ARO Amort. (g)	ARO Amort. (h)
45 Regulator 46 47 48 49 50 51 Unfunded 52 53 54 55 56 56 57 58 59 60 61	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May June July August September October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year January February March April May June July July July August	ARO Amort. (g)	ARO Amort. (h)
45 Regulation 46 47 48 49 50 51 Unfunded 52 53 54 55 55 56 57 58 59 60 61 62	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May June July August September October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year January February March April May June July July July August September	ARO Amort. (g)	ARO Amort. (h)
45 Regulator 46 47 48 49 50 51 Unfunded 52 53 54 55 56 57 58 59 60 61 62 63	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May July July September October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year January February March April May July August September October	ARO Amort. (g)	ARO Amort. (h)
45 Regulation 46 47 48 49 50 51 Unfunded 52 53 54 55 56 57 58 55 56 57 58 60 61 62 63 64	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May June July August September October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year January February March April May June July August September October November	ARO Amort. (g)	ARO Amort. (h)
45 Regulator 46 47 48 49 50 51 Unfunded 52 53 54 55 56 57 58 59 60 61 62 63	Plant Held For Future Use Transmission Plant Held For Future (Included in total on line 44 Assets and Liabilities Approved for Recovery In Ratebas Note: Regulatory Assets & Liabilities can only be included in ratebase Total Regulatory Deferrals Included in Ratebase Reserves Summary (Company Records) (a)	FF1, page 214, in 47, Col. (d) Company Records - Note 1 pursuant to a 205 filing with the FE <u>Source of Data</u> (b)	(c) ERC. - <u>Balance @ December</u> <u>31.</u>	(d) 	(e) - - - - - - - - - - - - - - - - - - -	-	January February March April May July July September October November December Year 13 Month Average Amortization of Transmission ARO (f) December Prior Year January February March April May July August September October	ARO Amort. (g)	ARO Amort. (h)

NOTE 1: On this worksheet, "Company Records" refers to Buckeye's property accounting ledger. NOTE 2: The ratebase should not include the unamoritzed balance of hedging gains or losses.

(D)

Formula Rate WS B ADIT & ITC

(E)

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet B Supporting ADIT and ITC Balances Buckeye Power, Inc.

(C)

(B)

(A)

	()	(-)	(-)	(-)	(-)
Line Number	Description	Source	Balance @ December 31,	Balance @ December 31, -1	Average Balance for
1	Account 281				
2	Year End Utility Deferrals	FF1, p. 272 - 273, ln 8, Col. (k)			-
3	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 4 (Note 1)		-	-
4 5	Less: Other Excluded Deferrals Transmission Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 3 (Note 1) Ln 2 - In 3 - In 4		-	-
5	Transmission Related Deterrais	Ln 2 - in 3 - in 4	-	-	-
6	Account 282				
7	Year End Utility Deferrals	FF1, p. 274 - 275, ln 5, Col. (k)	-	-	-
8	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 7 (Note 1)		-	-
9	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 6 (Note 1)		-	-
10	Transmission Related Deferrals	Ln 7 - ln 8 - ln 9	-	<u> </u>	-
11	Account 283				
12	Year End Utility Deferrals	FF1, p. 276 - 277, In 9, Col. (k)	-	-	-
13	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 13 (Note 1)		-	-
14	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 12 (Note 1)) -	-	-
15	Transmission Related Deferrals	Ln 12 - In 13 - In 14	-	<u> </u>	-
16	Account 190				
17	Year End Utility Deferrals	FF1, p. 234, ln 8, Col. (c)	-	-	-
18	Less: ARO Related Deferrals	WS B-2 - Actual Stmt. AG Ln. 4 (Note 1)		-	-
19	Less: Other Excluded Deferrals	WS B-2 - Actual Stmt. AG Ln. 3 (Note 1)	-	-	-
20	Transmission Related Deferrals	Ln 17 - ln 18 - ln 19	-		-
21	Account 255				
22	Year End ITC Balances	FF1, p. 266-267, ln 8, Col. (h)	-		-
23	Less: Balances Not Qualified for Ratebase	Company Records - Note 1			-
24	ITC Balances Includeable Ratebase	Ln 22 - In 23	-	-	-
25	Transmission Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 20 (Note 1)) -	-	-

NOTE 1 On this worksheet, "Company Records" refers to Buckeye's tax forecast and accounting ledger. The PTRR will use projected ending balances and reflect proration required by IRS Letter Rule Section I.I67(I)-I(h)(6)(ii). Line item detail of actual deferred tax items will be included on Worksheets B-1 and B-2.

NOTE 2 ADIT balances should exclude balances related to hedging activity.

Exhibit No. BPI-4: Buckeye Formula Rate – Clean Version Page 9 of 33

Formula Rate

Buckeye Power, Inc. SPECIFIED DEFERRED CREDITS - Actual Cycle Only PERIOD ENDED DECEMBER 31,

PERIOD ENDED DECEMBER 31,		(DEBIT) CREDIT			Formula Rate WS B-1 - B-2
COLUMN A	COLUMN B COLUMN C COLUMN D COLUMN		COLUMN G COLUMN H COLUMN I	COLUMN J COLUMN K COLUMN L	COLUMN M COLUMN N COLUMN O
ACCUMULATED DEFERRED FIT ITEMS	PER BOOKS NON-APPLICABLE/NON-UTIL BALANCE AS BALANCE AS BALANCE AS BALANCE AS OF 12-31-1 OF 12-31- OF 12-31-1 OF 12-31-1	ELECTRIC AS UTILITY	FUNCTIONALIZATION AVERAGE	FUNCTIONALIZATION 12/31/-1	FUNCTIONALIZATION 12/31/
1.00 ACCOUNT 281: 2.01 2.02 2.03 2.04 2.05 2.06		0 0 0 0 0 0 0	0 0 0		
3 TOTAL ACCOUNT 281 4 ACCOUNT 281 - ARO-Related Deferrals 5 ACCOUNT 282:	0 0 0 0 0 0	0 0 0 0	0 0 0 0 0 0	<u> 0 0 0 0 0 0 0 </u>	0 0 0 0 0 0
5.01 5.02 5.03 5.04 5.05 5.06 5.07 5.08 5.09 5.10 5.11 5.12 5.13 5.14 5.15 5.16 5.16 5.16 5.16 5.16 5.17 5.18 5.19 5.20 5.21 5.22 5.23 5.24 5.25 5.26 5.27 5.28 5.29 5.20 5.21 5.22 5.23 5.24 5.25 5.26 5.27 5.28 5.29 5.20 5.21 5.25 5.26 5.27 5.28 5.29 5.20 5.21 5.25 5.26 5.27 5.28 5.29 5.20 5.21 5.25 5.26 5.27 5.28 5.29 5.20 5.21 5.25 5.26 5.27 5.28 5.29 5.20 5.21 5.25 5.26 5.27 5.28 5.26 5.27 5.28 5.29 5.20 5.21 5.25 5.26 5.27 5.28 5.26 5.27 5.28 5.29 5.20 5.21 5.25 5.26 5.27 5.26 5.27 5.28 5.26 5.27 5.33 5.34 5.35 5.33 5.34 5.35 5.36 5.37 5.38 5.39 5.39 5.40					
5.41 6 TOTAL ACOUNT 282 7 ACCOUNT 282 - ARO-Related Deferals	0 0 0 0 0 0 0	0 0 0 0	<u> </u>	<u> </u>	0 0 0 0 0 0
8 ACCOUNT 283: 9.01 9.02 9.03 9.04 9.05 9.06 9.07 9.08 9.09 9.10 9.11 9.12 9.13 9.14	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		

Exhibit No. BPI-4: Buckeye Formula Rate – Clean Version Page 10 of 33

Buckeye Power, Inc. SPECIFIED DEFERRED CREDITS - Actual Cycle Only PERIOD ENDED DECEMBER 31,

(DEBIT) CREDIT

Formula Rate
WS B-1 - B-2

PER BOOKS NON-APPLICABLE/NON-UTILITY ELECTRIC AVERAGE ELECTRIC FUNCTIONALIZATION AVERAGE FUNCTIONALIZATION 12/31/-1 9.16 0	FUNCTIONALIZATION 12/31/
BALANCE AS BALANCE AS BALANCE AS BALANCE AS BALANCE AS UTILITY 9.15 OF 12:31: OF 12:31	ION GENERATION TRANSMISSION DISTRIBUTION
9.15 0 0 0 0 0 9.16 0 0 0 0 0 9.17 0 0 0 0 0 9.18 0 0 0 0 0 9.19 0 0 0 0 0 9.20 0 0 0 0 0 9.21 0 0 0 0 0 9.23 0 0 0 0 0	
9.17 0 0 0 0 0 9.18 0 0 0 0 0 9.19 0 0 0 0 0 9.20 0 0 0 0 0 9.21 0 0 0 0 0 9.22 0 0 0 0 0 9.23 0 0 0 0 0	
9.19 0 0 0 0 0 9.20 0 0 0 0 0 9.21 0 0 0 0 0 9.22 0 0 0 0 0 9.23 0 0 0 0 0	
921 0	
9.23 0 0 0 0 0 0	
924 0 0 0 0 0 0 0 0 0 0 925 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
925 0 0 0 0 0 0 0 0 926 0 0 0 0 0 0 0 927 0 0 0 0 0 0	
9.30 0 0 0 0 0	
9.33 0 0 0 0 0 0 0 9.34 0 0 0 0 0 0	
9.35 0	
9.38 0 0 0 0 0 0	
9.39 0 0 0 0 0 0 9 0	
9.41 0 0 0 0 0 0 0 9.42 0 0 0 0 0 0	
9,43 0 0 0 0 0 0 0 9,44 0 0 0 0 0 0 0	
9.45 0 0 0 0 0 0	
9.46 0	
9.48 0	
9.50 0 0 0 0 0 0 9.51 0 </th <th></th>	
9.52 0	
9.54 0 0 0 0 0 0 9 0	
9.56 0 0 0 0 0 0 9.57 0 0 0 0 0 0	
9,59 0 0 0 0 0 0 0 0	
9.60 0 0 0 0 0	
9.61 0 0 0 0 0 0 9 0	
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9.65 0 0 0 0 0 0 9 0	
9.67 0 0 0 0 0 0 9.68 0 </th <th></th>	
9.69 0 0 0 0 0 9.70 0 0 0 0 0 0	
9.71 0 0 0 0 0 9.72 0 0 0 0 0 0	
973 974 0 0 0 0 0 0 0	
9.75 0 0 0 0 0 0 0 9.76 0 0 0 0 0 0	
9.77 0 0 0 0 0 0	
9.79 0 0 0 0 0 0	
9.80 0	
9.82 0 0 0 0 0 0 9.83 0 </th <th></th>	
9.84 0 0 0 0 0 0 9.85 0 </th <th></th>	
9.86 0 0 0 0 0 0 9.87 0 </th <th></th>	
9.88 0 0 0 0 0 0 0 0 0 0	
9.90 0 0 0 0 0 0	

Exhibit No. BPI-4: Buckeye Formula Rate – Clean Version Page 11 of 33

Buckeye Power, Inc. SPECIFIED DEFERRED CREDITS - Actual Cycle Only PERIOD ENDED DECEMBER 31,

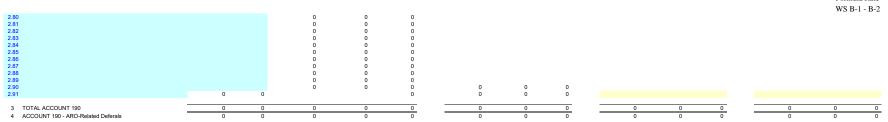
PERIOD ENDED DECEMBER 31,					(DEBIT) CREDIT										Formula WS B-1		
COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E	COLUMN F	COLU	MN G	COLUMN H	COLUMN I		COLUMN J	COLUMN K	COLUMN L	COLUMN M	COLUMN N	COLUMN O	
	PER BO	DOKS	NON-APPLICAE	BLE/NON-UTILITY	AVERAGE ELECTRIC		FUNCTION	ALIZATION AV	ERAGE	-	FUNC	TIONALIZATION	12/31/-1	FUN	NCTIONALIZATION	N 12/31/	-
ACCUMULATED DEFERRED FIT ITEMS 9.91 9.92 9.93	BALANCE AS <u>OF 12-311</u> 0 0 0	BALANCE AS <u>OF 12-31-</u> 0 0 0	BALANCE AS OF 12-311	<u>OF 12-31-</u>	UTILITY (<u>B+C+D+E)/2</u> 0 0	GENER	ATION TR. 0 0 0	ANSMISSION 0 0 0	DISTRIBUTION 0 0 0		<u>GENERATION</u>	TRANSMISSIO	N DISTRIBUTION	<u>GENERATION</u>	I TRANSMISSIO	N <u>DISTRIBUTION</u>	
9.94 9.95 9.96 9.97 9.97 9.98 9.99	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0												
10	0	0	0	0	0		0	0	0	-	0		0 0	0		0 0	
11 DEFD STATE INCOME TAXES	0	0			0		0	0	0								
11.01		-	0	-	0												
12 TOTAL ACCOUNT 283 13 ACCOUNT 283 - ARO-Related Deferals	0	0	0		0		0	0	0		0		0 0 0 0	C		0 0 0 0	-
14 JURISDICTIONAL AMOUNTS FUNCTIONALIZED																	
15 TOTAL COMPANY AMOUNTS FUNCTIONALIZED																	
16 REFUNCTIONALIZED BASED ON JURISDICTIONAL PLANT																	
17 NOTE: POST 1970 ACCUMULATED DEFERRED 18 INV TAX CRED. (JDITC) IN A/C 255																	
18.01 18.02	0	0			0		0 0	0	0								
19 20 TOTAL ACCOUNT 255	0	0	0	0	0		0	0	0		0		0 0	C	, (0 0	•

Exhibit No. BPI-4: Buckeye Formula Rate - Clean Version Page 12 of 33

Formula Rate WS B-1 - B-2

Buckeye Power, Inc. ACCUMULATED DEFERRED INCOME TAX IN ACCOUNT 190 - Actual Cycle Only PERIOD ENDED DECEMBER 31,

PERIOD ENDED DECEMBER 31,			DEBIT (CREDIT)			WS B-1 - B-2
COLUMN A	COLUMN B COLUMN C	COLUMN D COLUMN E	<u>COLUMN F</u> AVERAGE	COLUMN G COLUMN H COLUMN I FUNCTIONALIZATION AVERAGE	COLUMN J COLUMN K COLUMN L FUNCTIONALIZATION 12/31/-1	COLUMN M COLUMN N COLUMN O FUNCTIONALIZATION 12/31/
	BALANCE AS BALANCE AS	BALANCE AS BALANCE AS	ELECTRIC UTILITY			
ACCUMULATED DEFERRED FIT ITEMS ACCOUNT 190:	OF 12-311 OF 12-31-	OF 12-311 OF 12-31-	(B+C+D+E)/2	GENERATION TRANSMISSION DISTRIBUTION	GENERATION TRANSMISSION DISTRIBUTION	GENERATION TRANSMISSION DISTRIBUTION
	0 0		0	0 0 0		
2.01 2.02 2.03 2.04 2.05	0 0 0 0		0 0	0 0 0 0 0 0		
2.04 2.05 2.06	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.07 2.08			0			
2.09 2.10	0 0 0		0	0 0 0 0 0 0		
2.11 2.12 2.13	0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.13 2.14 2.15			0			
2.16 2.17	0 0 0		0			
2.18 2.19	0 0 0		0			
2.20 2.21 2.22			0 0 0	0 0 0 0 0 0 0 0 0		
2.23	0 0 0		0			
2.24 2.25 2.26	0 0 0 0		0	0 0 0 0 0 0		
2.26 2.27 2.28 2.29	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.30 2.31	0 0 0		0			
2.32 2.33 2.34	0 0 0 0		0	0 0 0 0 0 0		
2.34 2.35 2.36 2.37	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.30 2.37 2.38			0			
2.38 2.39 2.40 2.41	0 0 0 0		0	0 0 0 0 0 0		
2.41 2.42 2.43	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.44 2.45			0			
2.46 2.47	0 0 0 0		0	0 0 0 0 0 0		
2.48 2.49	0 0 0		0 0 0	0 0 0 0 0 0		
2.50 2.51 2.52 2.53			0	0 0 0 0 0 0 0 0 0		
2.54	0 0 0 0		0	0 0 0 0 0 0		
2.55 2.56	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.57 2.58 2.59			0			
2.59 2.60 2.61	0 0		0			
2.62 2.63	0 0 0		0			
2.64 2.65 2.66	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.67 2.68	0 0 0 0		0			
2.69 2.70	0 0 0 0		0			
2.71 2.72 2.73	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.74 2.75	0 0 0 0 0 0		0			
2.76 2.77	0 0 0 0		0	0 0 0 0 0 0		
2.78 2.79	0 0 0 0		0 0	0 0 0 0 0 0		

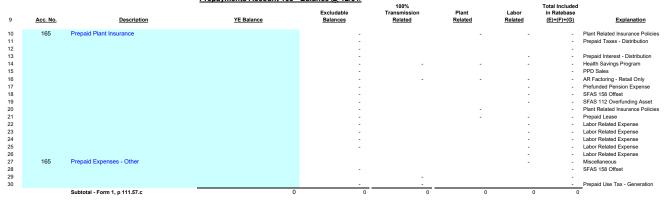


Formula Rate

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet C Supporting Working Capital Rate Base Adjustments Buckeye Power, Inc.

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(1)
			Materials	& Supplies					
Line Number			Source	Balance @ December 31.	Balance @ December 31, -1	Average Balance for			
1		Transmission Projects Materials & Supplies	Company Records	0	0	-			
2		Other Transmission Materials & Supplies	FF1, p. 227, In 8, Col. (c) & (b) less Ln 1	0	0	-			
3		General Materials & Supplies	FF1, p. 227, In 11, Col. (c) & (b)	0	0	-			
4		Stores Expense (Undistributed) - Account 163	FF1, p. 227, In 16, Col. (c) & (b)	0	0	-			
Prepayment Balance Summary (Note 1) 100% Transmission Total Included Average of Excludable Transmission Plant Labor In Retebase 5 YE Balance Balances Related Related Related Els/FFHGB									
6 7 8		Totals as of December 31, Totals as of December 31, -1 Average Balance	00	0 0	0 0 -	0 0	0 0	0 0 -	

Prepayments Account 165 - Balance @ 12/31/



Prepayments Account 165 - Balance @ 12/31/ -1

			Prepayments Account 165 - E	lalance (@ 12/31/ -1	100%	Transmission	Transmission	Total Included	
31	Acc. No.	Description	-1 <u>YE Balance</u>	Excludable Balances	Transmission <u>Related</u>	Plant <u>Related</u>	Labor <u>Related</u>	in Ratebase (E)+(F)+(G)	Explanation
32 33 34 35 36	165	Prepaid Plant Insurance				-	-		Plant Related Insurance Policies Prepaid Taxes - Distribution Prepaid Interest - Distribution Health Savings Program
37 38 39 40 41 42 43						-	- - -		PPD Sales AR Factoring - Retail Only Prefunded Pension Expense SFAS 158 Offset SFAS 158 Offset SFAS 112 Overfunding Asset Plant Related Insurance Policies Prepaid Lease
44 45 46 47 48 49 50 51 52	165	Prepaid Expenses - Other		-			-		Labor Related Expense Labor Related Expense Labor Related Expense Labor Related Expense Labor Related Expense Miscellaneous SFAS 158 Offset Prepaid Use Tax - Generation
		Subtotal - Form 1, p 111.57.d	0	0	0	0	0		-

Note 1: Prepayments will exclude all prepaid federal and state income taxes and outstanding income tax refunds due Compáring nither prior federal or state audits or amended income tax returns. Only federal and state income tax prepayments of income taxes which are includable are those applicable to periods subsequent to the date of the balance sheet as described in USofA Account 236.

Formula Rate WS D IPP Credits

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet D Supporting IPP Credits Buckeye Power, Inc.

<u>Line</u> Number	(A) <u>Description</u>	(B) <u>0</u>
1	Net Funds from IPP Customers 12/31/-1 (FORM 1, P269)	
2	Interest Accrual (Company Records - Note 1)	
3	Revenue Credits to Generators (Company Records - Note 1)	
4 5 6	Other Adjustments Accounting Adjustment (Company Records - Note 1)	-
7	Net Funds from IPP Customers 12/31/ (FORM 1, P269)	-
8	Average Balance for Year as Indicated in Column B ((In 1 + In 7)/2)	

Note 1 On this worksheet Company Records refers to Buckeye Power, Inc.'s general ledger.

Exhibit No. BPI-4: Buckeye Formula Rate – Clean Version Page 16 of 33

> Formula Rate WS E Rev Credits

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet E Supporting Revenue Credits Buckeye Power, Inc.

Line		<u>Total</u>	<u>Non-</u>	
Number	Description	<u>Company</u>	Transmission	Transmission
1	Account 450, Forfeited Discounts (FF1 p.300.16.(b); Company Records - Note 1)		-	
2	Account 451, Miscellaneous Service Revenues (FF1 p.300.17.(b); Company Records - Note 1)		-	
3	Account 454, Rent from Electric Property (FF1 p.300.19.(b); Company Records - Note 1)		-	
4	Account 4560015, Associated Business Development - (Company Records - Notes 1, 2)		-	
5	Account 456 - Other Electric Revenues - (Company Records - Notes 1,2)		-	
5a	Account 457.1, Regional Control Service Revenues (FF1 p.300.23.(b); Company Records - Note 1)		-	
5b	Account 457.2, Miscellaneous Revenues (FF1p.300.24.(b); Company Records - Note 1)		-	
6	Subtotal - Other Operating Revenues (Company Total equals (FF1 p. 300.26.(b))	-	-	-
7	Accounts 4470004 & 5, Revenues from Grandfathered Transmission Contracts - (Company Records - Note 1)		-	
8	Total Other Operating Revenues To Reduce Revenue Requirement	-	-	-

Note 1 The total company data on this worksheet comes from the indicated FF1 source, or Buckeye Power, Inc.'s general ledger. The functional amounts identified as transmission revenue also come from the general ledger.

Note 2 The total of line 4 and line 5 will equal total Account 456 as listed on FF1 p.300.21-22.(b)

9 Facility Credits under PJM OATT Section 30.9

- -

Formula Rate WS F Misc Exp

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet F Supporting Allocation of Specific O&M or A&G Expenses Buckeye Power, Inc.

	(A)	(B)	(C)	(D)	(E) <u>100%</u>	(F)
<u>Line</u> Number	<u>ltem No.</u>	Description	<u>0</u> Expense	<u>100%</u> Non-Transmission	Transmission Proj. Specific	Explanation
1		Regulatory O&M Deferrals & Amortizations				
1 2 3 4		Total	0			
4			0			
5 6 7 8 9 10 11 12 13	FF1 p 321.85.b FF1 p 321.86.b FF1 p 321.87.b FF1 p 321.87.b FF1 p 321.89.b FF1 p 321.90.b FF1 p 321.91.b FF1 p 321.92.b	Detail of Account 561 Per FERC Form 1 561.1 - Load Dispatch - Reliability 561.2 - Load Dispatch - Monitor & Operate Trans System 561.3 - Load Dispatch - Trans Service & Scheduling 561.4 - Scheduling, System Control & Dispatch Services 561.5 - Reliability, Planning and Standards Development 561.6 - Transmission Service Studies 561.7 - Generation Interconnection Studies 561.8 - Reliability, Planning and Standards Development Services				
14	·	Total of Account 561	0			
		Account 928				
15 16 17 18 19	FF1 p 323.189b	928 Regulatory Commission Expenses		-		
20		Total (FERC Form 1 p.323.189.b)	-	-	-	
		Account 930.1				
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36	FF1 p 323.191b	General Advertising Expenses	-		-	
37		Total (FERC Form 1 p.323.191.b)		-		
38 39 40 41 42	FF1 p 323.192b	Account 930.2 Miscellaneous General Expenses			-	
43		Total (FERC Form 1 p.323.192.b)	-	-	-	
		Account 924				
44 45 46 47 48	FF1 p323.185b Company Records	Property Insurance Property Insurance specific to Transmission Projects		-		
49		Total (FERC Form 1 p.323.191.b)		-	-	

Formula Rate WS G State Inc Tax Rate

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet G Supporting - Development of Composite State Income Tax Rate Buckeye Power, Inc.

Tennessee Income Tax Rate Apportionment Factor - Note 1 Effective State Tax Rate	0.00%
West Virginia Net Income Tax Rate Apportionment Factor - Note 1 Effective State Tax Rate	0.00%
Virginia Income Tax Rate Apportionment Factor - Note 1 Effective State Tax Rate	0.00%
Ohio Franchise Tax Rate Phase-out Factor	
Apportionment Factor - Note 1 Effective State Tax Rate	0.00%
Michigan Business Income Tax Rate Apportionment Factor - Note 1 Effective State Tax Rate	0.00%
Illinois Corporation Income Tax Rate Apportionment Factor - Note 1 Effective State Tax Rate	0.00%
Total Effective State Income Tax Rate	0.00%

Note 1 Apportionment Factors are determined as part of the Company's annual tax return for that jurisdiction.

Formula Rate WS H Other Taxes

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet H Supporting Taxes Other than Income Buckeye Power, Inc.

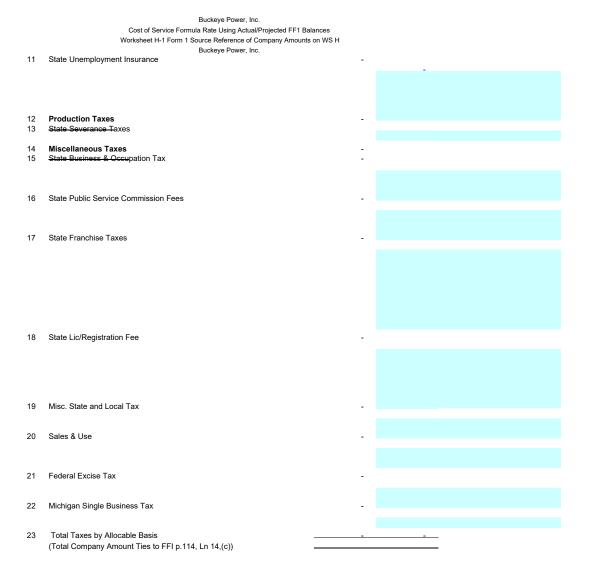
	(A)	(B)	(C)	(D)	(E)	(F)
Line No.	Account	Total Company NOTE 1	Property	Labor	Other	Non-Allocable
1	Revenue Taxes					
2	Gross Receipts Tax (Ohio kWh Tax)	-				-
3	Real Estate and Personal Property Taxes					
4	Real and Personal Property - Ohio	-	-			
5	Real and Personal Property - Other Jurisdiction 1	-	-			
6	Real and Personal Property - Other Jurisdictions	-	-			
7	Payroll Taxes					
8	Federal Insurance Contribution (FICA)	-		-		
9	Federal Unemployment Tax	-		-		
10	State Unemployment Insurance	-		-		
11	Production Taxes					
12	State Severance Taxes	-				-
13	Miscellaneous Taxes					
14	State Public Service Commission Fees	-				-
15	State Franchise Taxes	-			-	
16	State Lic/Registration Fee	-			-	
17	Misc. State and Local Tax	-			-	
18	Sales & Use	-			-	
19	Federal Excise Tax	-				-
20	State B&O Taxes	-				-
21	Michigan Single Business Tax	-				-
22	Total Taxes by Allocable Basis	-	-	-	-	-
	(Total Company Amount Ties to FFI p.114, Ln 14,(c))					
	NOTE 1: The detail of each total company number and its source in		wn on WS H-1.			

of each total company number and its source in the FERC Form 1 is shown on WS H-1. Functional Property Tax Allocation

		Production	Transmsission Projects	Other <u>Transmission</u>	Distribution	General	Total
23	Functionalized Net Plant (TCOS, Lns 41 thru 44)	-			-		
24	Ohio Property Taxes (Company Records)				-		-
25	General Plant Property Taxes Funtionalized	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-	#DIV/0!
26	Funtional Property Tax Expenses	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-	#DIV/0!
	JURISDICTION						
27	Percentage of Plant inJURISDICTION						
28	Net Plant inJURISDICTION (Ln 23 * Ln 27)	-	-	-	-	-	-
29	Less: Net Value of Exempted Generation Plant						
30	Taxable Property Basis (Ln 28 - Ln 29)	-	-	-	-	-	-
31	Relative Valuation Factor						
32	Weighted Net Plant (Ln 30 * Ln 31)	-	-	-	-	-	
33	General Plant Allocator (Ln 32 / (Total - General Plant))	0.00%	0.00%	0.00%	0.00%	-100.00%	
34	Functionalized General Plant (Ln 33 * General Plant)	-	-	-	-	-	-
35	WeightedJURISDICTION Plant (Ln 32 + 34)	-	-	-	-	-	-
36	Functional Percentage (Ln 35/Total Ln 35)	0.00%	0.00%	0.00%	0.00%	0.00%	
37	Functionalized Expense inJURISDICTION				-	-	-
	JURISDICTION						
38	Percentage of Plant in JURISDICTION						
41a	Net Plant in JURISDICTION (Ln 23 - Ln 26 - Ln 28)	-	-	-	-	-	-
39	Less: Net Value Exempted Generation Plant						
40	Taxable Property Basis	-	-	-	-	-	-
41	Relative Valuation Factor						
42	Weighted Net Plant (Ln 40 * Ln 41)	-	-	-	-	-	
43	General Plant Allocator (Ln 42 / (Total - General Plant)	0.00%	0.00%	0.00%	0.00%	-100.00%	
44	Functionalized General Plant (Ln 44 * General Plant)	-	-	-	-	-	-
45	Weighted JURISDICTION Plant (Ln 42 + 44)	-	-	-	-	-	-
46	Functional Percentage (Ln 45/Total Ln 45)	0.00%	0.00%	0.00%	0.00%	0.00%	
47	Functionalized Expense in JURISDICTION				-		-
48	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet H-1 Form 1 Source Reference of Company Amounts on WS H Buckeye Power, Inc. (A) (B) (C) (D) Line Total FERC FORM 1 FERC FORM 1 Reference No. Annual Tax Expenses by Type (Note 1) Company Tie-Back Sales and Revenue Taxes Gross Receipts Tax 1 2 Ohio kWh Tax (D) (A) (B) (C) (E) (F) (G) Tax Year Total FERC FORM 1 Transmission Function FERC FORM 1 Reference Real Estate and Personal Propety Tax Detail Annual Tax Expenses by Type (Note 1) Tax Year Factor Company Tie-Back (Note 2) (Note 2) Real Estate and Personal Property Taxes Total (Ln 4 + Ln 5 + Ln 6 + Ln 7) 3 4 Real and Personal Property - Ohio Transmission Projects Other Transmission 5 Real and Personal Property - Other Juridiction 1 Real and Personal Property - Other Jurisdiction 2 6 7 Real and Personal Property - Other Jurisdictions (A) (B) (C) (D)

Line		Total	FERC FORM 1	
No.	Annual Tax Expenses by Type (Note 1)	Company	Tie-Back	FERC FORM 1 Reference
8	Payroll Taxes	-		
9	Federal Insurance Contribution (FICA)	-		
10	Federal Unemployment Tax	-		



Note 1: The taxes assessed on each facility can differ from year to year and by both the type of taxes and the states in which they were assessed. Therefore, the types and jurisdictions of tax expense recorded on this page could differ from the same page in the prior year template or from this page in current year templates. For each update, this sheet will be revised to ensure that the total activity recorded hereon equals the total reported in account 408.1 on P. 114, Ln 14.(c) of the FERC Form 1.

Note 2: The transmission functional amounts for any Real Estate and Property taxes listed on pages 263 of the FERC Form 1 will be allocated using the transmission functional allocator calculated for each state in Worksheet H of the applicable year that the taxes were assessed. Real and Personal Property - Other Jurisdictions will be allocated using the Gross Plant Allocator from the applicable year.

Exhibit No. BPI-4: Buckeye Formula Rate – Clean Version Page 22 of 33

> Formula Rate WS I Reserved

Buckeye Power, Inc. Cost of Service Formula Rate Using FF1 Balances Worksheet I RESERVED FOR FUTURE USE Buckeye Power, Inc.

Formula Rate WS J PROJECTED RTEP RR

Buckeye Power, Inc. Cost of Service Formula Rate Using FF1 Balances Worksheet J Supporting Calculation of PROJECTED PJM RTEP Project Revenue Requirement Billed to Benefiting Zones Buckeye Power, Inc.

Page 1 of 2

I. Calculate Return and Income Taxes with basis point ROE increase for Projects Qualified for Regional Billing.

A. Determine 'R' with hypothetical basis point increase in ROE for Identified Projects

ROE w/o incentives (TCOS, In 152) Project ROE Incentive Adder			10.35%		
ROE with additional basis point incentive			10.35%		
Determine R (cost of long term debt, cost of preferred stock and equity percentage is from the TCOS, Ins 150 through 152)					
	%	Cost	Weighted cost		
Long Term Deb	0.00%	#DIV/0!	#DIV/0!		
Preferred Stock	0.00%	0.00%	0.000%		
Common Stock	0.00%	10.35%	0.000%		
		R =	#DIV/0!		

SUMMARY OF PROJECTED	ANNUAL RTEP	REVENUE REQUIR Rev Require	EMENTS W Incentives	Incentive Amounts
PROJECTED YEAR	0	#N/A	#N/A	#N/A

B. Determine Return using 'R' with hypothetical basis point ROE increase for Identified Projects.

Rate Base (TCOS, In 68)	#DIV/0!
R (from A. above)	#DIV/0!
Return (Rate Base x R)	#DIV/0!

C. Determine Income Taxes using Return with hypothetical basis point ROE increase for Identified Projects.

Return (from B. above)	#DIV/0!
Effective Tax Rate (TCOS, In 110)	#DIV/0!
Income Tax Calculation (Return x CIT)	#DIV/0!
ITC Adjustment	#DIV/0!
Excess Deferred Income Tax	-
Tax Affect of Permanent Differences	
Income Taxes	#DIV/0!

II. Calculate Net Plant Carrying Charge Rate (Fixed Charge Rate or FCR) with hypothetical basis point ROE increase.

A. Determine Annual Revenue Requirement less return and Income Taxes.

III.

A. Determine Ainual Revenue Requirement less return and income rakes.	
Annual Revenue Requirement (TCOS, In 1) Lease Payments (TCOS, Ln 91)	#DIV/0!
Return (TCOS, In 122)	#DIV/0!
Income Taxes (TCOS, In 121)	#DIV/0!
Annual Revenue Requirement, Less Lease Payments, Return and Taxes	#DIV/0!
B. Determine Annual Revenue Requirement with hypothetical basis point increase in ROE.	
Annual Revenue Requirement, Less Lease Payments, Return and Taxes	#DIV/0!
Return (fromI.B. above)	#DIV/0!
Income Taxes (from I.C. above)	#DIV/0!
Annual Revenue Requirement, with Basis Point ROE increase	#DIV/0!
Depreciation (TCOS, In 96)	<u> </u>
Annual Rev. Req, w/ Basis Point ROE increase, less Depreciation	#DIV/0!
C. Determine FCR with hypothetical basis point ROE increase.	
Net Transmission Plant (TCOS, In 42)	-
Annual Revenue Requirement, with Basis Point ROE increase	#DIV/0!
FCR with Basis Point increase in ROE	#DIV/0!
Annual Rev. Req, w / Basis Point ROE increase, less Dep.	#DIV/0!
FCR with Basis Point ROE increase, less Depreciation	#DIV/0!
FCR less Depreciation (TCOS, In 10)	#DIV/0!
Incremental FCR with Basis Point ROE increase, less Depreciation	#DIV/0!
Calculation of Composite Depreciation Rate	
Average Transmission Plant Balance for (TCOS, In 19)	
Annual Depreciation and Amortization Expense (TCOS, In 96)	-
Composite Depreciation Rate	#DIV/0!
Depreciable Life for Composite Depreciation Rate	#DIV/0!
Round to nearest whole year	#DIV/0!

Formula Rate WS J PROJECTED RTEP RR

Worksheet J - ATRR PROJECTED Calculation for PJM Projects Charged to Benefiting Zones

Page 2 of 2

1

IV. Determine the Revenue Requirement, and Additional Revenue Requirement for facilities receiving incentives.

A. Base Plan Facilities

Facilities receiving incentives accepted by FERC in Docket No.
--

Current Projected Year ARR	#N/A
Current Projected Year ARR w/ Incentive	#N/A
Current Projected Year Incentive ARR	#N/A

Project Description:

Details									
Investment		Current Year				0	CUMULATIVE HIS	TORY OF PROJECTED ANNUAL REV	ENUE REQUIREMENTS:
Service Year (yyyy)		ROE increase accepte	d by FERC (Basis Po	ints)			CUMULATIVE HISTORY OF PR	OJECTED ANNUAL REVENUE REQU	REMENTS:
Service Month (1-12)		FCR w/o incentives, le		,		#DIV/0!		WITH & WITHOUT INCENTIVES) FRO	
Useful life	#DIV/0!	FCR w/incentives appr		es, less dep.		#DIV/0!		AINTAIN HISTORY OF PROJECTED A	
CIAC (Yes or No)		Annual Depreciation E		, ,			LIFE OF THE PROJECT.		
		· · ·	'						
							RTEP Projected Rev.	RTEP Projected	
							Req't.From Prior Year	Rev. Reg't.From	
Investment	Beginning	Depreciation	Ending	RTEP Rev. Req't.	RTEP Rev. Req't.	Incentive Rev.	Template	Prior Year Template	
Year	Balance	Expense	Balance	w/o Incentives	with Incentives **	Requirement ##	w/o Incentives	with Incentives **	
	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!			
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-	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!			
Project Totals				#DIV/0!	#DIV/0!	#DIV/0!	-		

(e.g. ER05-925-000)

** This is the total amount that needs to be reported to PJM for billing to all regions.

This is the calculation of additional incentive revenue on projects deemed by the FERC to be eligible for an incentive returm. This additional incentive requirement is applicable for the life of this specific project. Each year the revenue requirement calculated for PJM should be incremented by the amount of the incentive revenue calculated for that year on this project.

In order to calculate the proper monthly RTEP billing amount, PJM requires a 12 month revenue requirement for each RTEP project. As a result, notwithstanding the fact that the project was in service for a partial year, the project revenue requirement in the year that the project goes into service has been annualized (shown at the full-year level) so that PJM will collect the correct monthly billings.

Formula Rate WS K TRUE-UP RTEP RR

Buckeye Power, Inc. Cost of Service Formula Rate Using FF1 Balances Worksheet K Supporting Calculation of TRUE-UP PJM RTEP Project Revenue Requirement Billed to Benefiting Zones Buckeye Power, Inc.

Page 1 of 2

Calculate Return and Income Taxes with 0 basis point ROE increase for Projects Qualified for Regional Billing.

A. Determine 'R' with hypothetical 0 basis point increase in ROE for Identified Projects

ROE w/o incentives (TCOS, In 152)			10.35%
Project ROE Incentive Adder			0
ROE with additional 0 basis point incentive	•		10.35%
Determine R (cost of long term debt, cost	of preferred stoc	k and equity percentage	is from the TCOS, Ins 150 through152)
	<u>%</u>	Cost	Weighted cost
Long Term Debt	0.00%	#DIV/0!	#DIV/0!
Preferred Stock	0.00%	0.00%	0.000%
Common Stock	0.00%	10.35%	0.000%
		R =	#DIV/0!

JOINIMART OF TROLE	UP ANNUAL REVENUE REQUIREMEN R	ev Require	W Incentives	Incentive Amounts
TRUE-UP YEAR	0			
	As Projected in Prior Year WS J	#N/A	#N/A	#N/A
	Actual after True-up	#N/A	#N/A	#N/A
	True-up of ARR For	#N/A	#N/A	#N/A

B. Determine Return using 'R' with hypothetical 0 basis point ROE increase for Identified Projects.

Rate Base (TCOS, In 68)	#DIV/0!
R (from A. above)	#DIV/0!
Return (Rate Base x R)	#DIV/0!

I.

C. Determine Income Taxes using Return with hypothetical 0 basis point ROE increase for Identified Projects.

Return (from B. above)	#DIV/0!
Effective Tax Rate (TCOS, In 110)	#DIV/0!
Income Tax Calculation (Return x CIT)	#DIV/0!
ITC Adjustment	#DIV/0!
Excess Deferred Income Tax	-
Tax Affect of Permanent Differences	<u> </u>
Income Taxes	#DIV/0!

II. Calculate Net Plant Carrying Charge Rate (Fixed Charge Rate or FCR) with hypothetical 0 basis point ROE increase.

A. Determine Annual Revenue Requirement less return and Income Taxes.

Annual Revenue Requirement (TCOS, In 1)	#DIV/0!
Lease Payments (TCOS, Ln 91)	-
Return (TCOS, In 122)	#DIV/0!
Income Taxes (TCOS, In 121)	#DIV/0!
Annual Revenue Requirement, Less Lease Payments,	#DIV/0!
Return and Taxes	

B. Determine Annual Revenue Requirement with hypothetical 0 basis point increase in ROE.

Annual Revenue Requirement, Less Lease Payments, Return and Taxes Return (from I.B. above) Income Taxes (from I.C. above) Annual Revenue Requirement, with 0 Basis Point ROE increase Depreciation (TCOS, In 96)	#DIV/0! #DIV/0! #DIV/0! #DIV/0!
Annual Rev. Req, w/ 0 Basis Point ROE increase, less	#DIV/0!
Depreciation	

C. Determine FCR with hypothetical 0 basis point ROE increase.

Net Transmission Plant (TCOS, In 42)	-
Annual Revenue Requirement, with 0 Basis Point ROE increase	#DIV/0!
FCR with 0 Basis Point increase in ROE	#DIV/0!
Annual Rev. Reg, w / 0 Basis Point ROE increase, less Dep.	#DIV/0!
FCR with 0 Basis Point ROE increase, less Depreciation	#DIV/0!
FCR less Depreciation (TCOS, In 10)	#DIV/0!
Incremental FCR with 0 Basis Point ROE increase, less	#DIV/0!
Depreciation	

III. Calculation of Composite Depreciation Rate

Average Transmission Plant Balance for (TCOS, In 19)	
Annual Depreciation and Amortization Expense (TCOS, In 96)	
Composite Depreciation Rate	#DIV/0!
Depreciable Life for Composite Depreciation Rate	#DIV/0!
Round to nearest whole year	#DIV/0!

Formula Rate WS K TRUE-UP RTEP RR

Worksheet K - ATRR TRUE-UP Calculation for PJM Projects Charged to Benefiting Zones

Page 2 of 2

IV. Determine the Revenue Requirement, and Additional Revenue Requirement for facilities receiving incentives.

A. Base Plan Facilities

Facilities receiving incentives	s accepted by FER	C in Docket No.				(e.g. ER05-925-000)		Rev Require	W Incentives	Incentive Amounts	
Project Description:								Prior Yr Projected Prior Yr True-Up True-Up Adjustment	#N/A #N/A	#N/A #N/A #N/A	#N/A #N/A #N/A	
Details								True-op Adjustment	nva	#11/A	#N/A	
Investment		Current Year					0	TRUE	UP OF PROJECT REVENUE REQUI	REMENT FOR PRIOR	YEAR:	
Service Year (yyyy)			ed by FERC (Basis Poi	nts)					RY OF TRUED-UP ANNUAL REVEN			
Service Month (1-12)		FCR w/o incentives, le					#DIV/0!		P ARR (WITH & WITHOUT INCENTIV		OR YEAR	
Useful life	#DIV/0		oroved for these facilitie	s, less dep.			#DIV/0!		OW TO MAINTAIN HISTORY OF TRI			
CIAC (Yes or No)		Annual Depreciation E	Expense					LIFE OF THE PR	ROJECT.			
								RTEP Projected		RTEP Projected		
Investment	Designation	Depreciation	Fadina	A		RTEP Rev. Req't.	Incontine Day	Rev. Req't.From Prior Year WS J	RTEP Rev Req't True-up	Rev. Req't.From Prior Year WS J	RTEP Rev Req't	True-up of Incentive
Investment Year	Beginning Balance	Expense	Ending Balance	Average Balance	RTEP Rev. Req't. w/o Incentives	with Incentives *	Incentive Rev. Requirement ##	w/o Incentives	w/o Incentives	with Incentives **	True-up with Incentives **	with Incentives
-	Dalarice	Expense	Dalance	Dalance	#DIV/0!	#DIV/0!	#DIV/0!	W/O Incentives	s -	with incentives	\$.	\$ -
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** This is the total amount that needs to be reported to PJM for billing to all regions.

This is the calculation of additional incentive revenue on projects deemed by the FERC to be eligible for an incentive return. This additional incentive requirement is applicable for the life of this specific project. Each year the revenue requirement calculated for PJM should be incremented by the amount of the incentive revenue calculated for that year on this project.

Exhibit No. BPI-4: Buckeye Formula Rate – Clean Version Page 27 of 33

> Formula Rate WS L Reserved

Buckeye Power, Inc. Cost of Service Formula Rate Using FF1 Balances Worksheet L Reserved for Future Use Buckeye Power, Inc.

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet M Supporting Calculation of Capital Structure and Weighted Average Cost of Capital Buckeye Power, Inc.

			Averag	e Balance of Commo		
Line				Less Undistributed Sub Earnings (Acct		Average Balance of
No	Month (a)	Proprietary Capital (b)	Less: Preferred Stock (c)	216.1) (d)	Less AOCI (Acct 219.1) (e)	Common Equity (f)=(b)-(c)-(d)-(e)
	(Note A)	(FF1 112.16)	(FF1 250-251)	(FF1 112.12)	(FF1 112.15)	
1	December Prior to Rate Year		-	-	-	-
2	January		-	-	-	-
3	February		-	-	-	-
4	March		-	-	-	-
5	April		-	-	-	-
0	May June		-	-	-	-
8	July			1		-
9	August					
10	September					_
11	October		-	_	_	-
12	November		-	-	-	-
13	December of Rate Year		-		-	-
14	Average of the 13 Monthly Balances	-	-	-	-	-

		Average Balance of Long Term Debt								
				Acct 223	Acct 224		Gross Proceeds			
Line		Acct 221	Less: Acct 222	LT Advances from	Senior Unsecured	Less: Fair Value	Outstanding Long-Term			
No	Month	Bonds	Reacquired Bonds	Assoc. Companies	Notes	Hedges	Debt			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)=(b)-(c)+(d)+(e)-(f)			
						FF1, page 257, Col. (h) -				
	(Note A)	(FF1 112.18)	(FF1 112.19)	(FF1 112.20)	(FF1 112.21)	Note 1				
15	December Prior to Rate Year		-	-			-			
16	January		-	-			-			
17	February		-	-			-			
18	March		-	-			-			
19	April		-	-			-			
20	Мау			-			-			
21	June			-			-			
22	July			-			-			
23	August		-	-			-			
24	September		-	-			-			
25	October		-	-			-			
26	November		-	-			-			
27	December of Rate Year			-			-			
28	Average of the 13 Monthly Balances	-	-	-	-	-	-			

NOTE 1: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (Page 257 Column H of the FF1)

Amortization Period

Development of Cost of Long Term Debt Based on Average Outstanding Balance

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
29	Annual Interest Expense for						
30	Interest on Long Term Debt - Accts 221 - 224 (256-257.33.i)						
	Less: Total Hedge Gain/Expense Accumulated from p 256-257,	col. (i) of FERC Form 1					
31	included in Ln 30 and shown in 50 below.			-			
32	Plus: Allowed Hedge Recovery From Ln 55 below.			-			
33	Amort of Debt Discount & Expense - Acct 428 (117.63.c)						
34	Amort of Loss on Reacquired Debt - Acct 428.1 (117.64.c)						
35	Less: Amort of Premium on Debt - Acct 429 (117.65.c)			-			
36	Less: Amort of Gain on Reacquired Debt - Acct 429.1 (117.66.c)			-			
37	Total Interest Expense (Ln 30 - 31 + 33 + 34 - 35 - 36)			-			
38	Average Cost of Debt for (Ln 37/ In 28 (g))			#DIV/0!			

CALCULATION OF RECOVERABLE HEDGE GAINS/LOSSES

39 NOTE: The net amount of hedging gains or losses recorded in account 427 to be recovered in this formula rate should be limited to the effective portion of pre-issuance cash flow hedges that are amortized over the life of the underlying debt issuances. The recovery of a net loss or passback of a net gain will be limited to five basis points of the total Capital Structure. Amounts related to the ineffective portion of pre-issuance hedges, cash settlements of fair value hedges issued on Long Term Debt, post-issuance cash flow hedges, and cash flow hedges of variable rate debt issuances are not recoverable in this formula and are to be recorded in the "Excludable" column below.

	HEDGE AMOUNTS BY ISSUANCE (FROM p. 256-257 (i) of the FERC Form 1)	Total Hedge (Gain)/Loss for	Less Excludable Amounts (See NOTE on Line 39)	Net Includable Hedge Amount	Remaining Unamortized Balance	Beginning	Ending
40				-			
41				-			
42				-			
43				-			
44				-			
45				-			
46 47				-			
47				-			
40				-			
	Fotal Hedge Amortization	-	-		-		
	Hedge Gain or Loss Prior to Application of Recovery Limit (Sum o Fotal Average Capital Structure Balance for (TCOS, Ln 153)	f Lines 40 to 48)		-			
53 F	Financial Hedge Recovery Limit - Five Basis Points of Total Capit Limit of Recoverable Amount	tal		-			
55 F	Recoverable Hedge Amortization (Lesser of Ln 51 or Ln 54)			-			

Development of Cost of Preferred Stock

Preferred Stock					Average	
56 0% Series - 0 - Dividend Rate (p. 250-251)		0.000%		0.000%		
57 0% Series - 0 - Par Value (p. 250-251)	\$	-	\$	-		
58 0% Series - 0 - Shares O/S (p.250-251)		-		-		
59 0% Series - 0 - Monetary Value (Ln 57 * Ln 58)		-		-	-	
60 0% Series - 0 - Dividend Amount (Ln 56 * Ln 59)		-		-	-	
61 0% Series - 0 - Dividend Rate (p. 250-251)		0.000%		0.000%		
62 0% Series - 0 - Par Value (p. 250-251)	\$	- 0.00070	\$	-		
63 0% Series - 0 - Shares O/S (p.250-251)	Ť	_	Ť	-		
64 0% Series - 0 - Monetary Value (Ln 62 * Ln 63)		-		-	-	
65 0% Series - 0 - Dividend Amount (Ln 61 * Ln 64)		-		-	-	
66 0% Series - 0 - Dividend Rate (p. 250-251)		0.000%		0.000%		
67 0% Series - 0 - Par Value (p. 250-251)	\$	-	\$	-		
68 0% Series - 0 - Shares O/S (p.250-251)		-		-		
69 0% Series - 0 - Monetary Value (Ln 67 * Ln 68) 70 0% Series - 0 - Dividend Amount (Ln 66 * Ln 69)		-		-	-	
70 0% Selles - 0 - Dividend Amodni (En 60 En 69)		-		-	-	
71 Balance of Preferred Stock (Lns 59, 64, 69)		-		-	-	Year End Total Agrees to FF1 p.112, Ln 3, col (c) & (d)
72 Dividends on Preferred Stock (Lns 60, 65, 70)		-		-	-	3 1 2 () () ()
73 Average Cost of Preferred Stock (Ln 72/71)		0.00%		0.00%	0.00%	

Formula Rate WS N - Sale of Plant Held Page 1 of 1

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet N - Gains (Losses) on Sales of Plant Held For Future Use Buckeye Power, Inc.

Note: Gain or loss on plant held for future are recorded in accounts 411.6 or 411.7 respectiviely. Sales will be functionalized based on the description of that asset. Sales of transmission assets will be direct assigned; sales of general assets will be functionalized on labor. Sales of plant held for future use related to generation or distribution will not be included in the formula.

	(A)	(B)	(C) Function	(D)	(E)	(F)	(G) Functional	(H) Functionalized	(I) FERC
Line	Date	Property Description	(T) or (G) T = Transmission G = General	Basis	Proceeds	(Gain) / Loss	Allocator	Proceeds (Gain) / Loss	Account
1						-	0.000%	-	
2						-	0.000%	-	
3						-	0.000%	-	
4			Net ((Gain) or Loss	for		-		

Buckeye Power, Inc. PJM FORMULA RATE WORKSHEET P - TRANSMISSION DEPRECIATION RATES EFFECTIVE AS OF 1/1/2018 FOR SINGLE JURISDICTION COMPANIES

	PLANT ACCT.	RATES
TRANSMISSION PLANT		
Structures & Improvements	352.0	2.75%
Station Equipment	353.0	3.00%
Twrs and Fixtures Above 69 KV	354.0	2.75%
Twrs and Fixtures Below 69 KV	354.0	2.75%
Poles and Fixtures Above 69 KV	355.0	2.75%
Poles and Fixtures Below 69 KV	355.0	2.75%
Overhead Conductor & Devices Above 69KV	356.0	2.75%
Overhead Conductor & Devices MSP	356.0	2.75%
Overhead Conductor & Devices 138KV/Above	356.0	2.75%
Overhead Conductor & Devices 69KV/Below	356.0	2.75%
Overhead Conductor & Devices CLR 69KV/Below	356.0	2.75%
Underground Conduit	357.0	2.75%
Underground Conductors	358.0	2.75%

Reference:

-

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet Q - True-up With Interest

	Forecast by October 31,	=		Over (Under) Recovery \$0		
ds or Surcharges	Over (Under) Recovery Plus Interest	Average Monthly Interest Rate	Months	Calculated Interest	Amortization	Surcharge (Refund) Owed
e recovered prorata	over 2018, held for 2019 and returne	ed prorate over 2020				
				Monthly		
Year 1	-	0.0000%	12			-
	-			-		-
	-			-		-
	-			-		-
	_					-
	-			-		
	-			-		
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redi z	-	0.000076	12	-		-
	ecovered Over 12 Months			Monthly		
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	-			-	-	-
	-			-	-	-
	-			-	-	-
	-			-	-	-
	-			-	-	-
	-			-	-	-
	-			-	-	-
Year 3	-	0.0000%		-	-	-
Year 3	-	0.0000%		-	-	-
Year 3	-	0.0000%		-	-	-
Year 3	-	0.0000%		-	-	
	Year 1 Year 3 Year 3	ds or Surcharges Interest e recovered prorata over 2018, held for 2019 and returned Year 1 Year 3 Ye	Over (Under) Recovery Plus Interest Average Monthly Interest Rate e recovered prorata over 2018, held for 2019 and returned prorate over 2020 Year 1 - 0.0000% Year 3 - 0.0000% </td <td>Over (Under) Recovery Plus Average Monthly Interest Rate Months e recovered prorata over 2018, held for 2019 and returned prorate over 2020 12 Year 1 - 0.0000% 11 Year 1 - 0.0000% 10 Year 1 - 0.0000% 11 Year 1 - 0.0000% 12 Year 1 - 0.0000% 12 Year 3 - 0.0000% 12 Year 3 - 0.</td> <td>Over (Under) Recovery Plus ds or Surcharges Average Monthly Interest Months Calculated Interest e recovered prorata over 2018, held for 2019 and returned prorate over 2020 Monthly Monthly Year 1 - 0.0000% 12 - Year 1 - 0.0000% 10 - Year 1 - 0.0000% 10 - Year 1 - 0.0000% 8 - Year 1 - 0.0000% 8 - Year 1 - 0.0000% 7 - Year 1 - 0.0000% 5 - Year 1 - 0.0000% 4 - Year 1 - 0.0000% 2 - Year 1 - 0.0000% 2 - Year 1 - 0.0000% 2 - Year 3 - 0.0000% 2 - Year 3 - 0.0000% - - Year 3 - 0.0000%</td> <td>Over (Under) Recovery Plus is or Surcharges Average Monthly Interest Rate Months Calculated Interest Amortization e recovered prorata over 2018, held for 2019 and returned prorate over 2020 Months Calculated Interest Amortization Year 1 - 0.0000% 12 - Year 1 - 0.0000% 10 - Year 1 - 0.0000% 9 - Year 1 - 0.0000% 7 - Year 1 - 0.0000% 7 - Year 1 - 0.0000% 5 - Year 1 - 0.0000% 5 - Year 1 - 0.0000% 2 - Year 1 - 0.0000% 3 - Year 1 - 0.0000% 2 - Year 1 - 0.0000% 2 - Year 1 - 0.0000% 2 - Year 3 - 0.00000% - - <</td>	Over (Under) Recovery Plus Average Monthly Interest Rate Months e recovered prorata over 2018, held for 2019 and returned prorate over 2020 12 Year 1 - 0.0000% 11 Year 1 - 0.0000% 10 Year 1 - 0.0000% 11 Year 1 - 0.0000% 12 Year 1 - 0.0000% 12 Year 3 - 0.0000% 12 Year 3 - 0.	Over (Under) Recovery Plus ds or Surcharges Average Monthly Interest Months Calculated Interest e recovered prorata over 2018, held for 2019 and returned prorate over 2020 Monthly Monthly Year 1 - 0.0000% 12 - Year 1 - 0.0000% 10 - Year 1 - 0.0000% 10 - Year 1 - 0.0000% 8 - Year 1 - 0.0000% 8 - Year 1 - 0.0000% 7 - Year 1 - 0.0000% 5 - Year 1 - 0.0000% 4 - Year 1 - 0.0000% 2 - Year 1 - 0.0000% 2 - Year 1 - 0.0000% 2 - Year 3 - 0.0000% 2 - Year 3 - 0.0000% - - Year 3 - 0.0000%	Over (Under) Recovery Plus is or Surcharges Average Monthly Interest Rate Months Calculated Interest Amortization e recovered prorata over 2018, held for 2019 and returned prorate over 2020 Months Calculated Interest Amortization Year 1 - 0.0000% 12 - Year 1 - 0.0000% 10 - Year 1 - 0.0000% 9 - Year 1 - 0.0000% 7 - Year 1 - 0.0000% 7 - Year 1 - 0.0000% 5 - Year 1 - 0.0000% 5 - Year 1 - 0.0000% 2 - Year 1 - 0.0000% 3 - Year 1 - 0.0000% 2 - Year 1 - 0.0000% 2 - Year 1 - 0.0000% 2 - Year 3 - 0.00000% - - <

True-Up Adjustment with Interest Less Over (Under) Recovery Total Interest

Note 1: The interest rate to be applied to the over recovery or under recovery amounts will be determined using the average monthly FERC interest rate (as determined pursuant to 18 C.F.R. Section 35.19a) for the twenty (20) months from the beginning of the rate year being trued-up through August 31 of the following year.

Formula Rate
TCOS

-

							TCOS
					Twelve Months Ended		2019
		Transmission Cost	e Power, Inc. of Service Formula Rate ected FERC Form 1 Data		Twolve months Ended		2013
		Buckeye Power, Inc					
Line No.							mission iount
1	REVENUE REQUIREMENT (w/o incentives)	(In 126)	Total		Allocator		\$323,223
2	REVENUE CREDITS	(Worksheet E Ln 8) (Note A)	-	DA	1.00000	\$	-
3	Facility Credits under PJM OATT Section 30.9	(Worksheet E Ln 9) (Note X)				\$	-
4	REVENUE REQUIREMENT For All Company Facilities	(In 1 less In 2 plus In 3)				\$	323,223
	The Carrying Charge Calculations on lines 7 to 12 below are used in a s. The total non-incentive revenue requirements for these projects sh Revenue Requirement for PJM Schedule 12 Facilities (w/o incentives) (own on line 5 is included in the total on line 4.	ugh PJM Schedule 12, Transmission Enhancen #N/A	nent DA	1.00000	#	N/A
6	NET PLANT CARRYING CHARGE w/o credits or ROE incentives (Note	, B)					
7	Annual Rate	((In 1 - In 91)/((In 42) x 100))					12.29%
8	Monthly Rate	(ln 7 / 12)					1.02%
9 10	NET PLANT CARRYING CHARGE ON LINE 7 , w/o depreciation or ROE Annual Rate	incentives (Note B) ((In 1 - In 91 - In 96)/((In 42) x 100))					9.48%
11 12	NET PLANT CARRYING CHARGE ON LINE 10, w/o Return, income tax Annual Rate	es or ROE incentives (Note B) ((In 1 - In 91 - In 96 - In 121 - In 122) /((In 42) x 100))				3.12%
13	ADDITIONAL REVENUE REQUIREMENT for projects w/ incentive ROE	s (Note B) (Worksheet J/K)					
14		REVENUE REQUIREMENT FOR SC	HEDULE 1A CHARGES				
15	Total Load Dispatch & Scheduling (Account 561)	Line 75 Below					2,541,071
16	Less: Load Dispatch - Scheduling, System Control and Dispatch Service						1,898,970
17	Less: Load Dispatch - Reliability, Planning & Standards Development Se	ervices (321.92.b)					642,101

18 Total 561 Internally Developed Costs

(Line 15 - Line 16 - Line 17)

Exhibit No. BPI-5 - Buckeye Formula Rate Populated Page 2 of 33

Formula Rate TCOS

Buckeye Power, Inc. Transmission Cost of Service Formula Rate Utilizing Actual/Projected FERC Form 1 Data

Buckeye Power, Inc.

			Buokeye r ower, me.			
	(1)	(2)	(3)		(4)	(5)
		Data Sources				Total
	RATE BASE CALCULATION	(See "General Notes")	TO Total	Alle	ocator	Transmission
Line No.	GROSS PLANT IN SERVICE		NOTE C			
19	Production	(Worksheet A In 14.(b))	2.005.515.801	NA	0.00000	
20	Less: Production ARO (Enter Negative)	(Worksheet A In 14.(c))	(37,238,422)	NA	0.00000	-
20	Transmission Projects	(Worksheet A in 42.(g) plus Ln 42.(i))	2,680,000	DA	1.00000	2,680,000
22	Less: Transmission Projects ARO (Enter Negative)	(Worksheet A In 51.(h))	2,000,000	DA	1.00000	2,000,000
21a	Other Transmission	(Worksheet A In 42.(c) plus Ln 42.(e))	17,091,768	NA	0.00000	-
22a	Other Transmission ARO (Enter Negative)	(Worksheet A In 51.(g))	-	NA	0.00000	-
23	Distribution	(Worksheet A In 14.(f))		NA	0.00000	-
24	Less: Distribution ARO (Enter Negative)	(Worksheet A In 14.(g))		NA	0.00000	-
25	General Plant	(Worksheet A In 14.(h))	34,290,951	W/S	0.00030	10,422
26	Less: General Plant ARO (Enter Negative)	(Worksheet A In 14.(i))		W/S	0.00030	-
27	Intangible Plant	(Worksheet A In 14.(j))	1,127,890	W/S	0.00030	343
28	TOTAL GROSS PLANT	(sum Ins 19 to 27)	2,023,467,987	GP	0.001330	2,690,765
				GTD=	1.00000	
29	ACCUMULATED DEPRECIATION AND AMORTIZATION					
30	Production	(Worksheet A In 28.(b))	769,929,845	NA	0.00000	-
31	Less: Production ARO (Enter Negative)	(Worksheet A In 28.(c))	(11,869,879)	NA	0.00000	-
32	Transmisson Projects	(Worksheet A In 42.(g) plus Ln 42.(i))	49,133	DA	1.00000	49,133
33	Less: Transmission Projects ARO (Enter Negative)	(Worksheet A In 66.(h))	-	DA	1.00000	-
32a	Other Transmission	(Worksheet A In 42.(c) plus Ln 42.(e))	4,435,124	NA	0.00000	-
33a	Other Transmission ARO (Enter Negative)	(Worksheet A In 66.(g))	-	NA	0.00000	-
34	Distribution	(Worksheet A In 28.(f))	•	NA	0.00000	-
35	Less: Distribution ARO (Enter Negative)	(Worksheet A In 28.(g))		NA	0.00000	-
36	General Plant	(Worksheet A In 28.(h))	15,775,747	W/S	0.00030	4,795
37	Less: General Plant ARO (Enter Negative)	(Worksheet A In 28.(i))		W/S	0.00030	-
38	Intangible Plant	(Worksheet A In 28.(j))		W/S	0.00030	
39	TOTAL ACCUMULATED DEPRECIATION	(sum Ins 30 to 38)	778,319,970			53,928
40	NET PLANT IN SERVICE					
40	Production	(In 19 + In 20 - In 30 - In 31)	1.210.217.413			
41	Transmission Projects	(ln 21 + ln 22 - ln 32 - ln 33)	2.630.867			2,630,867
42 42a	Other Transmission	(ln 21 + ln 22 - ln 32 - ln 33)	12,656,644			2,030,007
43	Distribution	(In 23 + In 24 - In 34 - In 35)	12,000,044			
44	General Plant	(In 25 + In 26 - In 36 - In 37)	18,515,203			5,627
45	Intangible Plant	(in 27 - in 38)	1,127,890			343
46	TOTAL NET PLANT IN SERVICE	(sum lns 41 to 45)	1,245,148,017	NP	0.002118	2,636,837
		(.,,,			_,,
47	DEFERRED TAX ADJUSTMENTS TO RATE BASE	(Note D)				
48	Account No. 281.1 (enter negative)	(Worksheet B, In 2 & In 5.E)		NA		-
49	Account No. 282.1 (enter negative)	(Worksheet B, In 7 & In 10.E)	-	DA		-
50	Account No. 283.1 (enter negative)	(Worksheet B, In 12 & In 15.E)	· ·	DA		-
51	Account No. 190.1	(Worksheet B, In 17 & In 20.E)	· ·	DA		-
52	Account No. 255 (enter negative)	(Worksheet B, In 24 & In 25.E)	<u> </u>	DA		-
53	TOTAL ADJUSTMENTS	(sum Ins 48 to 52)				-
54	PLANT HELD FOR FUTURE USE	(Worksheet A In 44.(e) & In 45.(e))		DA		
34	PEANT HEED FOR FOTORE USE	(Worksheet A in 44.(e) & in 45.(e))	-	DA		-
55	REGULATORY ASSETS	(Worksheet A In 51.(e))		DA		
55	REGERIORI AGGETO	(Wolkander Alli of.(c))		DA		
56	UNFUNDED RESERVES (ENTER NEGATIVE) (NOTE Y)	(Worksheet A In 55.(e))		W/S	0.00030	
57	WORKING CAPITAL	(Note E)				
58	Cash Working Capital	(1/8 * ln 78)	3,311			3,311
59	Transmission Projects Materials & Supplies	(Worksheet C, In 1.(F))	-	DA	1.00000	-
59a	Other Transmission Materials & Supplies	(Worksheet C, In 2.(F))		NA	0.00000	-
60	A&G Materials & Supplies	(Worksheet C, In 3.(F))		W/S	0.00030	-
61	Stores Expense Undistributed	(Worksheet C, In 4.(F))		GP	0.00133	-
62	Prepayments (Account 165) - Labor Allocated	(Worksheet C, In 8.G)	219,632	W/S	0.00030	67
63	Prepayments (Account 165) - Gross Plant	(Worksheet C, In 8.F)	985,282	GP	0.00133	1,310
64	Prepayments (Account 165) - Transmission Only	(Worksheet C, In 8.E)	-	DA	1.00000	-
65	Prepayments (Account 165) - Unallocable	(Worksheet C, In 8.D)		NA	0.00000	-
66	TOTAL WORKING CAPITAL	(sum Ins 58 to 65)	1,208,225			4,688
07	IPP CONTRIBUTIONS FOR CONSTRUCTION	(Note E) (Module and D. Jr. O.D.)		DA	4 00000	
67	IPP CONTRIBUTIONS FOR CONSTRUCTION	(Note F) (Worksheet D, In 8.B)	-	DA	1.00000	-
68	RATE BASE (sum Ins 46, 53, 54, 55, 56, 66, 67)		1,246,356,242			2,641,525
00	10112 D. OE (300 m3 40, 00, 04, 00, 00, 00, 07)		1,240,000,242			2,041,020

Exhibit No. BPI-5 - Buckeye Formula Rate Populated Page 3 of 33

Formula Rate TCOS

323,223

		Transmission Cost	e Power, Inc. of Service Formula Rate ected FERC Form 1 Data			
		Buckey	e Power, Inc.			
	(1)	(2)	(3)	(4	1)	(5)
	EXPENSE, TAXES, RETURN & REVENUE REQUIREMENTS CALCULATION	Data Sources (See "General Notes")	TO Total	Allo	cator	Total <u>Transmission</u>
Line No. 69 70 71 73 73 73 73 74 75 76 77 78	Customer Related Expenses Regional Markeling Expenses Transmission Project O&M (Billed by AEPOHTCo) Other Transmission O&M TOTAL 0&M EXPENSES Less: Total Account 561 Less: Regulatory Deferrals & Amortizations Total 0&M Allocable to Transmission	321.80.b 322.156.b 322.823.164.171,178.b 322.812.b Company Records 321.112.b Less Transmission Project O&M (sum Ins 69 to 73) (Note 73) (Worksheet F, In 14.C) (Note 1) (Worksheet F, In 14.C) (Note 1) (Worksheet F, In 4.C) (Ins 73 - 75 - 76 - 77)	387,989,410 4,182,923 26,478 99,229,455 491,428,246 2,541,071 96,688,354 26,488	DA	1.00000	26,488
79 80 81 82 83 84 85 86	Plus: Acct. 924, Property Insurance - Transm. Projects Acct. 928 - Transmission Project Specific	323.197.b (Notes J and M) 323.185.b 323.189.b 323.191.b 323.191.b 323.192.b (In 79 - sum In 80 to In 83) Worksheet F In 49.(E) Worksheet F In 20 (Note L)	17,092,620 2,111,065 (675) <u>3,838,974</u> 11,143,256	W/S DA DA	0.00030 1.00000 1.00000	3,387
87 88 89 90 91	Acd 930.1 - Only safety related ads -Direct Acd 930.2 - Misc Gen. Exp Trans A & G Subtotal O & M EXPENSE SUBTOTAL Plus: Transmission Lease Payments To Affiliates in Acct 565 (Company		11,143,256	DA DA NA	1.00000 1.00000 0.00000	3,387
92 93 94 95 96 96a 97 98 99		(In 90 + In 91) 336.2-6.f 336.8.f Worksheet A In 42a Col. (g) + Col. (i) Worksheet A In 42a Col. (c) + Col. (e) 336.1.f (In 94+95+ 96+97+98)	11,169,744 63,394,851 73,700 512,753 600,317 64,068,868	NA DA NA W/S W/S	0.00000 0.00000 1.00000 0.00000 0.00030 0.00030	29,875 - 73,700 - 182 - 73,882
100 101 102 103 104 104a 105 106 107	Labor Related Payroll Plant Related Property Tax Property Tax for Transmission Projects Other Transmiaaion Gross Receipts/Sales & Use Other	(Note N) Worksheet H in 22.(D) Worksheet H in 22.(C) Worksheet H in 49.(C) Worksheet H in 49.(D) Worksheet H in 22.(F) Worksheet H in 22.(F) (sum Ins 102 to 106)	288,559 8,276,313 52,043 353,043 - - - 8,969,959	W/S DA NA GP	0.00030 1.00000 0.00000 0.00000 0.00133	88 52,043 0 - - 52,131
108 109 110 111 112 113 114 115 116	$eq:started_st$	(Note O) (FF1 p.114, In 19.c) (Note U) (Note U)	0.00%	DA DA		
117 118 119 120	Income Tax Calculation ITC adjustment Excess Deferred Income Tax Tax Effect of Permanent and Flow-Through Differences	(in 110 * in 122) (in 113 * in 114) (in 113 * in 115) (in 113 * in 116)	- - -	GP	0.00133	
121	TOTAL INCOME TAXES	(sum Ins 117 to 120)				-
122	RETURN ON RATE BASE (Rate Base*WACC)	(In 68 * In 153)	78,953,415			167,334
123	INTEREST ON IPP CONTRIBUTION FOR CONST. (Note F) (Worksheet D	0, In 2.(B))	-	DA	1.00000	-
124	(Gains) / Losses on Sales of Plant Held for Future Use (Worksheet N, In 4,	Cols. ((F) & (H))				-
125	Tax Impact on Net Loss / (Gain) on Sales of Plant Held for Future Use (In	124 * In110)	-			-

163,161,986

TOTAL REVENUE REQUIREMENT (sum Ins 92, 99, 107, 121, 122, 123, 124, 125) 126

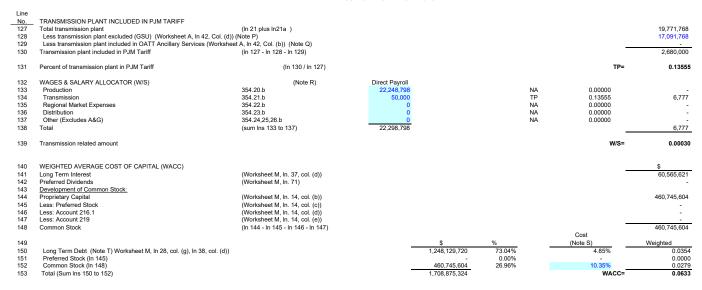
Exhibit No. BPI-5 - Buckeye Formula Rate Populated Page 4 of 33

Formula Rate TCOS

Buckeye Power, Inc. Transmission Cost of Service Formula Rate Utilizing Actual/Projected FERC Form 1 Data

Buckeye Power, Inc.

SUPPORTING CALCULATIONS



Formula Rate

Buckeve Power, Inc. Transmission Cost of Service Formula Rate Utilizing Actual/Projected FERC Form 1 Data

Buckeve Power, Inc.

Notes

General Notes: a) References to data from Worksheets are indicated as: Worksheet X, Line#.Column.X

Revenue credits include 1) Forfeited Discounts.

Letter

- 2) Miscellaneous Service Revenues.
- Rental revenues earned on assets included in the rate base.
- 4) Revenues for associated business projects provided by employees whose labor and overhead costs are in the transmission cost of service.
- 5) Other electric revenues.
- (a) One recurs reveales. (b) Revenues for grandfathered PTP contracts included in the load divisor. (c) If Buckeye has any directly assigned transmission facilities, the revenue credits in the formula rate shall include all revenues associated with those directly assigned transmission facilities, irrespective of whether the loads of the customer are included in the formula rate divisor; provided however, such addition to revenue credits shall not be reflected if the costs of such directly assigned transmission facilities are not included in the transmission plant balances on which the formula rate ATRR is based.
- See Worksheet E for details
- The annual and monthly net plant carrying charges on page 1 are used to compute the revenue requirement for RTEP sponsored upgrades or those projects receiving approved incentive-ROE's. Interest will be calculated based on Worksheet Q and any over under recovery will be filed and posted as part of the informational filing. в
- с Transmission Plant Balances in this study are projected or actual average beginning of year end of year balances
- D The total-company balances shown for Accounts 281, 282, 283, 190 only reflect ADIT that relates to utility operations. The balance of Account 255 is reduced by prior flowthrough and is completely excluded if the utility chose to utilize amortization of tax credits against FIT expense. An exception to this is pre-1971 ITC balances, which are required to be taken as an offset to rate base. Account 281 is not allocated In compliance with FERC Rulemaking the calculation of ADIT in the annual projection will be performed in accordance with IRS regulation Section1.167(I)-(h)(6)(ii). RM02-7-000. Asset Retirement Obligation deferrals have been removed from ratebase. Transmission ADIT allocations are shown on WS B. The company will not include the ADIT portion of deferred hedge gains and losses in rate base. Detailed balances for the projected or actual period, distinguished between utility and non-utility balances, will be filed and posted as part of the information filing.
- Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission, as shown on line 78. It excludes: 1) Load Scheduling & Dispatch Charges in account 561 that are collected in the OATT Ancillary Services Revenue, as shown on line 75. Е 2) Costs of Transmission of Electricity by Others, as described in Note H. 3) The impact of state regulatory deferrals and amortizations, as shown on line 77 4) All A&G Expenses, as shown on line 89.
- Consistent with Paragraph 657 of Order 2003-A, the amount on line 67 is equal to the balance of IPP System Upgrade Credits owed to transmission customers that made contributions toward the construction of System upgrades, and includes accrued interest and unreturned balance of contributions. The annual interest expense is included on line 123. F G
- Removes from the cost of service the Load Scheduling and Dispatch expenses booked to accounts 561.1 through 561.8, Expenses recorded in these accounts, with the exception of 561.4 & 561.8 (lines 16 & 17 above) are recovered in Schedule 1A, OATT ancillary services rates. See Worksheet F, lines 5 through 14, for descriptions and the Form 1 Source of these accounts' balances
- Removes cost of transmission service provided by others to determine the basis of cash working capital on line 78. To the extent such service is incurred to provide the PJM service at issue, e.g. lease payments to affiliates, such cost is added back on line 91 to determine the total O&M collected in the formula. The amounts on line 91 is also excluded in the calculation of the FCR percentage calculated on lines 6 through 12. н

- The company records referenced on line 91 is the Buckeye Power, Inc. general ledger.
- ī. Removes the impact of state regulatory deferrals or their amortization from Transmission O&M expense.
- General Plant and Administrative & General expenses, other than in accounts 924, 928, and 930, will be functionalized based on the Wages & Salaries "W/S" allocator. The allocation basis for accounts 924, 928 and 930 are separately presented in the formula. A change in the allocation method for an account must be approved via a 205 filing with the FERC.
- Reserved for future use К

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- Expenses recorded in FERC Accounts 928 (Regulatory Commission Expense), 930.1 (Safety Related Advertising) and 930.2 (Miscellaneouse General Expenses) that are not directly related to or properly allocable to transmission service will be removed from the TCOS. If Buckeye includes any expenses booked to these accounts in future ATRR updates, Buckeye must provide supporting information demonstrating that the underlying activities are directly related to providing transmission service. Account 930.2 includes the expenses incurred by the transmission function for Associated Business Development revenues given as a credit to the TCOS on Worksheet E. L
- М in Docket ER17-405, rRecoverable PBOP expense is based on actual annual PBOP costs-ind m the AEP Service C on. The PBOP amounts are included in the Administrative and General total, and are based on current year expenses. The annual actuarial valuation report supporting the derivation of the PBOP expense, along with an explanation of PBOP derivation process, is submitted during the formula rate annual update
- Ν Includes only FICA, unemployment, highway, property and other assessments charged in the current year. Gross receipts, sales & use and taxes related to income are excluded.

ο The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p =

The currently effective income tax facts, where IT is the receival nucleus takes, and p = the percentage of federal income tax deductible for state income taxes. See Worksheet G for the development of the Company's composite SIT. A utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.f) (In 114) multiplied by (1/1-T). If the applicable tax rates are zero enter 0. Inputs Required: Inputs Requi

0.00% (State Income Tax Rate or Composite SIT. Worksheet G)) 0.00% (percent of federal income tax deductible for state purposes) p = 0.00% (percent of federal The formula rate shall reflect the applicable state and federal statutory tax rates in effect during the period the calculated estimated unit charges are applicable. The statutory tax rates change during such period, the effective tax rates used in the formula shall be weighted by the number of days the pre-change rate and post-change rate each is in effect. Removes plant excluded from the OATT because it does not meet the PJM's definition of Transmission Facilities or is otherwise ineligible to be recovered under the OATT.

- Q s transmission plant (e.g. step-up transformers) included in the development of OATT ancillary service rates and not already removed for reasons indicated in Note P
- R Includes functional wages & salaries by Buckeye Staff billed by AEP Service Corpo
- l ong Term Debt cost rate = Long-Term Interest (In 141) / Long-Term Debt (In 150). Preferred Stock cost rate = preferred dividends (In 142) / preferred outstanding (In 151). s The return on equity (ROE) applicable to Buckeye proprietatry capital wil be 10.35%, including a base amount of 9.85% and an additional 0.5% for continued RTO participation, provided; however, that if a differenct base ROE is approved by the FERC for AEPOHTCo the Buckeye ROE will change correspondingly effective as of the date the new rate is effective for AEPOHTCo. The amount of eligible hedging gains or losses included in total interest expense is limited to five basis points of the capital structure. Details and calculations of the weighted average cost of capital are shown on Worksheet M. Eligible Hedging Gains and Losses are computed on Worksheet M.The unamortized balance of eligible hedge gains/losses and related ADIT amounts shall not flow through the formula rate. т
- e of \$265,249,280 at 12/31/12 is not included in the balan ce in line 150 above. The cost rates for long-term debt shall include interest expense and related periodic expenses (such as remarketing and letter of credit fees) as recorded in FERC Account 427 or 430, amortization of issuance costs (including insurance) and discounts as recorded in FERC Account 428, issuance premiums as recorded in FERC Account 429 and losses or gains on reacquired debt as recorded in FERC Accounts 428.1 or 429.1, respectively. The cost rates for preferred stock (if applicable) shall include the dividends. U
- expression provide the divide risk. Excess / (Deficit) Deferred income Taxes will be amortized over the average remaining life of the assets to which it relates, unless the Commission requires a different amortization period. The Tax Effect of Permanent Differences captures the differences in the income taxes due under the Federal and State tax calculations that are not the result of a timing difference, including but not limited to depreciation related to capitalized AFUDC equity and meals and entertainment deductions. The Tax Effect of Flow-Through differences captures current tax expense related to timing differences on items for which tax deductions were used to reduce customer rates through the use of flow-through accounting in a prior period. Transmission balances for the projected or actual period, will be filed and posted as part of the informational filing.
- v Cash investment in prepaid pension and benefits recorded in FERC Account 165 is permitted to be included in the formula. A labor expense allocation factor will be used to allocate total company costs. All other prepayments recorded in FERC Account 165 are directly assigned to the transmission function, allocated or excludable balances detailed on Worksheet C.
- The formula rate shall allocate property tax expense based on the as filed net plant cost allocation method detailed on Worksheet H. Under Section 30.9 of the PJM OATT, a network customer that owns existing transmission facilities that are integrated with the Transmission Provider's Transmission System may be eligible to receive consideration either through a billing W X
- credit or some other redentings of a review of used and the transmission review of the relation of any credit user in the standard at a integrated with the transmission review of standards of the network customer, shall be addressed in either the Network Customer's Service Agreement or any other agreement between the parties. The cost of service will make a rate base adjustment to remove unfunded reserves associated with contingent liabilities recorded to Accounts 228.1-228.4 from rate base.

Twelve Months Ended

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet A Rate Base Buckeye Power, Inc.

2019

					Gr	oss Plant In Service				
Line No	Month (a)	Production (b)	Production ARO (c)	Transmission (d)	Transmission ARO (e)	Distribution (f)	Distribution ARO (g)	General (h)	General ARO (i)	Intangible (j)
	(Note A)	FF1, page 205 Col.(g) & pg. 204 Col. (b), In 46	FF1, page 205&204, Col.(g)&(b), Ins 15,24,34,44	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 58	Acct. 359.1 FF1, page 207 Col.(g) & pg. 206 Col. (b), In 57	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 75	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 74	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 99	Acct. 399.1 FF1, page 207 Col.(g) & pg. 206 Col. (b), In 98	FF1, page 205 Col.(g) & pg. 204 Col. (b), In 5
1	December Prior to Rate Year	1,978,992,717	30,186,875	19,771,768		-		34,189,321	-	1,098,185
2	January	2,004,946,003	38,618,644	19,771,768				34,199,201		1,098,185
3	February	2,005,029,931	38,618,644	19,771,768				34,207,237		1,098,185
4	March	2,005,265,046	38,618,644	19,771,768				34,215,541		1,098,185
5	April	2,007,466,887	38,618,644	19,771,768				34,228,853		1,098,185
6	May	2,008,600,214	38,618,644	19,771,768				34,231,839		1,098,185
7	June	2,007,696,699	37,259,913	19,771,768				34,303,718		1,098,185
8	July	2,007,693,182	37,259,913	19,771,768				34,310,601		1,098,185
9	August	2,008,159,350	37,259,913	19,771,768				34,310,601		1,098,185
10	September	2,008,430,388	37,259,913	19,771,768				34,310,601		1,098,185
11	October	2,008,375,493	37,259,913	19,771,768				34,310,601		1,098,185
12	November	2,010,028,265	37,259,913	19,771,768				34,310,601		1,098,185
13	December of Rate Year	2,011,021,235	37,259,913	19,771,768				34,653,642		1,484,350
14	Average of the 13 Monthly Balances	2,005,515,801	37,238,422	19,771,768	-	-	-	34,290,951	-	1,127,890

			Accumulated Depreciation							
Line No	Month (a)	Production (b)	Production ARO (c)	Transmission (d)	Transmission ARO (e)	Distribution (f)	Distribution ARO (g)	General (h)	General ARO (i)	Intangible (j)
	(Note A)	FF1, page 219, Ins 20-24, Col. (b)	Company Records (Included in total in Column F (b))	F1, page 219, In 25, Col.	Company Records (Included in total in Column (d))	FF1, page 219, In 26, Co (b)	Company Records I. (Included in total in Column F (f))	F1, page 219, In 28, Col.	Company Records (Included in total in Column (h))	FF1, page 200, ln 21, Col. (b)
15	December Prior to Rate Year	741,783,208	10,205,837	4,191,030	(u))	(5)	(1)	15,015,261	(''))	(5)
16	January	744,664,444	10,524,733	4,239,901				15,141,893		
17	February	750,045,853	10,843,629	4,288,773				15,268,526		
18	March	755,676,225	11,162,525	4,337,643				15,395,158		
19	April	761,074,762	11,481,422	4,386,515				15,521,790		
20	May	763,941,505	11,800,318	4,435,386				15,648,423		
21	June	768,814,036	11,810,514	4,484,257				15,775,055		
22	July	774,457,544	12,077,960	4,533,128				15,901,688		
23	August	779,987,874	12,345,406	4,581,999				16,028,320		
24	September	785,151,844	12,612,852	4,630,870				16,154,952		
25	October	790,106,109	12,880,298	4,679,741				16,281,585		
26	November	795,561,055	13,147,744	4,728,613				16,408,217		
27	December of Rate Year	797,823,521	13,415,190	4,777,483			-	16,543,849		
28	Average of the 13 Monthly Balances	769,929,845	11,869,879	4,484,257	-	-	-	15,775,747	-	-

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet A Rate Base Buckeye Power, Inc.

Twelve Months Ended

2019

Line No	Month	OATT Ancillary Services Plant In Service	OATT Ancillary Services Accumulated Depreciation	Excluded Plant - Plant In Service (GSU)	Excluded Plant - Accumulated Depreciation (GSU)	Transmission Projects Added During 2019	Accumulated Depreciation for Transmission Projects Added During 2019	Transmission Projects Added Prior to 2019	Accumulated Depreciation for Transmission Projects Added Prior to 2019
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
	(Note A)	Company Records (included in total in column (d) of gross plant above)	Company Records (included in total in column (b) of accumulated depreciation above)	Company Records	Company Records	Company Records	Company Records	Company Records	Company Records
29	December Prior to Rate Year	-		17,091,768	4,178,747	-	-	2,680,000	12,283
30	January	-	-	17,091,768	4,221,476	-		2,680,000	18,425
31	February	-	-	17,091,768	4,264,206	-		2,680,000	24,567
32	March	-	-	17,091,768	4,306,935	-	-	2,680,000	30,708
33	April	-	-	17,091,768	4,349,665	-	-	2,680,000	36,850
34	May	-	-	17,091,768	4,392,394	-	-	2,680,000	42,992
35	June	-		17,091,768	4,435,124	-	-	2,680,000	49,133
36	July	-		17,091,768	4,477,853	-	-	2,680,000	55,275
37	August	-		17,091,768	4,520,582	-	-	2,680,000	61,417
38	September	-		17,091,768	4,563,312	-	-	2,680,000	67,558
39	October	-		17,091,768	4,606,041	-	-	2,680,000	73,700
40	November	-		17,091,768	4,648,771	-		2,680,000	79,842
41	December of Rate Year	-	-	17,091,768	4,691,500		-	2,680,000	85,983
42	Average of the 13 Monthly Balances	-	-	17,091,768	4,435,124	-		2,680,000	49,133
42a	Depreciuation Expense during Year		-		512,753		-		73,700

Transmission Accum Depreciation net of GSU 43

4,484,257

Plant Held	For Future Use	Source of Data	Balance @ December 31, 2019	Balance @ December 31, 2018	Average Balance for 2019				
	(a)	(b)	(c)	(d)	(e)				
44	Plant Held For Future Use	FF1, page 214, In 47, Col. (d)			-				
45	Transmission Plant Held For Future (Included in total on line 44	Company Records - Note 1			-				
Regulatory	Regulatory Assets and Liabilities Approved for Recovery In Ratebas								
	Note: Regulatory Assets & Liabilities can only be included in ratebase	pursuant to a 205 filing with the FI	ERC.						
46					-				
47					-				
48					-				
49					-				
50					-				
51	Total Regulatory Deferrals Included in Ratebas				-				

Transmission ARO (f)	Other Transmission ARO (g) Company Reecords	Transmission Projects ARO (h) Company Reecords
December Prior Year		
January		
February		100 C 100
March		
April		
May		
June		-
July		
August		
September		
October		
November		
December Year		
13 Month Average	-	-

Unfunded F	Reserves Summary (Company Records)	Source of Data	Balance @ December 31,	Balance @ December 31, -1	Average Balance for
	(a)	(b)	(c)	(d)	(e)
52	Description	Account	(-)	(-)	(-)
53					-
54					-
55			-		-
56					
57					
58					
59					
60					
61					
62					
63					
64					
65					
66	Total				

Amortization of Transmission ARO	Other Transmission ARO Amort.	Transmission Projects ARO Amort.
(f)	(g)	(h)
	Company Reecords	Company Reecords
December Prior Year	-	-
January	-	-
February		-
March		-
April		-
May		-
June		-
July		-
August		-
September		-
October	-	-
November		-
December Year		-
13 Month Average	-	-

NOTE 1: On this worksheet, "Company Records" refers to Buckeye's property accounting ledger. NOTE 2: The ratebase should not include the unamoritzed balance of hedging gains or losses.

Formula Rate WS B ADIT & ITC

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet B Supporting ADIT and ITC Balances Buckeye Power, Inc.

	(A)	(A) (B)		(D)	(E)
Line Number	Description	Source	Balance @ December 31, 2019	Balance @ December 31, 2018	Average Balance for 2019
1	Account 281				
2 3	Year End Utility Deferrals Less: ARO Related Deferrals	FF1, p. 272 - 273, ln 8, Col. (k) WS B-1 - Actual Stmt. AF Ln. 4 (Note 1)	1	1	-
4 5	Less: Other Excluded Deferrals Transmission Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 3 (Note 1) Ln 2 - In 3 - In 4	-	-	
6	Account 282				
7 8 9 10	Year End Utility Deferrals Less: ARO Related Deferrals Less: Other Excluded Deferrals Transmission Related Deferrals	FF1, p. 274 - 275, In 5, Col. (k) WS B-1 - Actual Stmt. AF Ln. 7 (Note 1) WS B-1 - Actual Stmt. AF Ln. 6 (Note 1) Ln 7 - In 8 - In 9		-	
11	Account 283				
12 13 14	Year End Utility Deferrals Less: ARO Related Deferrals Less: Other Excluded Deferrals	FF1, p. 276 - 277, ln 9, Col. (k) WS B-1 - Actual Stmt. AF Ln. 13 (Note 1) WS B-1 - Actual Stmt. AF Ln. 12 (Note 1)		÷	-
15	Transmission Related Deferrals	Ln 12 - In 13 - In 14	<u>_</u>		-
16	Account 190				
17 18 19 20	Year End Utility Deferrals Less: ARO Related Deferrals Less: Other Excluded Deferrals Transmission Related Deferrals	FF1, p. 234, ln 8, Col. (c) WS B-2 - Actual Stmt. AG Ln. 4 (Note 1) WS B-2 - Actual Stmt. AG Ln. 3 (Note 1) Ln 17 - ln 18 - ln 19		-	- - -
21	Account 255				
22 23 24 25	Year End ITC Balances Less: Balances Not Qualified for Ratebase ITC Balances Includeable Ratebase Transmission Related Deferrals	FF1, p. 266-267, ln 8, Col. (h) Company Records - Note 1 Ln 22 - ln 23 WS B-1 - Actual Stmt. AF Ln. 20 (Note 1)	 		

NOTE 1 On this worksheet, "Company Records" refers to Buckeye's tax forecast and accounting ledger. The PTRR will use projected ending balances and reflect proration required by IRS Letter Rule Section I.I67(I)-I(h)(6)(ii). Line item detail of actual deferred tax items will be included on Worksheets B-1 and B-2.

NOTE 2 ADIT balances should exclude balances related to hedging activity.

Exhibit No. BPI-5 - Buckeye Formula Rate Populated Page 9 of 33

Buckeye Power, Inc. SPECIFIED DEFERRED CREDITS - Actual Cycle Only PERIOD ENDED DECEMBER 31, 2019

(DEBIT) CREDIT

COLUMN A	COLUMN B COLU		BLE/NON-UTILITY	COLUMN F AVERAGE ELECTRIC	COLUMN G COLU FUNCTIONALIZ	MN H <u>COLUMN I</u> ATION AVERAGE	COLUMN J COLUMN K COLUMN L FUNCTIONALIZATION 12/31/2018	COLUMN M COLUMN N COLUMN O FUNCTIONALIZATION 12/31/2019
ACCUMULATED DEFERRED FIT ITEMS	BALANCE AS BALAN OF 12-31-2018 OF 12-3	ICE AS BALANCE AS 31-2019 OF 12-31-2018	BALANCE AS	UTILITY (B+C+D+E)/2	GENERATION TRANS	ISSION DISTRIBUTION	GENERATION TRANSMISSION DISTRIBUTION	GENERATION TRANSMISSION DISTRIBUTION
1.00 ACCOUNT 281: 2.01 2.02 2.03 2.04 2.05 2.06	0 0 0 0	0 0 0 0 0 0 0	0 0 0	0 0 0 0	0	0 0		
 TOTAL ACCOUNT 281 ACCOUNT 281 - ARO-Related Deferrals 	0	0 0	0	0	0	0 0	0 0 0 0 0 0	0 0 0 0 0 0
5 ACCOUNT 282:								
5.01 5.02 5.03 5.04 5.05 5.06 5.07 5.08 5.09 5.10 5.11 5.12 5.13 5.14 5.15 5.16 5.17 5.18 5.19 5.20 5.21 5.22 5.23 5.24 5.25 5.26 5.27 5.28 5.29 5.30 5.31 5.32 5.33 5.34 5.35 5.36 5.37 5.38 5.39 5.40								
5.41 6 TOTAL ACOUNT 282	0	0 0	0	0	0	0 0	0 0 0	
7 ACCOUNT 282 - ARO-Related Deferals	0	0 0	0	0	0	0 0	0 0 0	
8 ACCOUNT 283: 9.01	0	0		0	0	0 0		
9 02 9 03 9 04 9 05 9 06 9 06 9 06 9 08 9 09 9 10 9 11 9 12 9 13 9 14 9 15 9 16 9 16 9 16 9 16 9 18					0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		

Buckeye Power, Inc. SPECIFIED DEFERRED CREDITS - Actual Cycle Only PERIOD ENDED DECEMBER 31, 2019

(DEBIT) CREDIT

	COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E	COLUMN F	COLUMN G	COLUMN H	COLUMN I	COLUMN J COLUMN			COLUMN M COLUMN N	COLUMN O
		PER E	BOOKS	NON-APPLICABL	E/NON-UTILITY	AVERAGE	FUNCT	ONALIZATION AVE	RAGE	FUNCTIONALIZATIO	ON 12/31/2018	_	FUNCTIONALIZATION	12/31/2019
	ACCUMULATED DEFERRED FIT ITEMS	BALANCE AS OF 12-31-2018	BALANCE AS	BALANCE AS OF 12-31-2018	BALANCE AS	ELECTRIC UTILITY (B+C+D+E)/2	CENERATION	TRANSMISSION D		GENERATION TRANSMIS			ENERATION TRANSMISSIC	
9.19 9.20	ACCOMOLATED DEPERKED FITTEMS	0F 12-31-2018 0 0	0	OF 12-31-2018	OF 12-31-2019	0 0	GENERATION 0 0		0	GENERATION TRANSMIS	SION DISTRIBUTION	<u>.</u>	ENERATION TRANSMISSIC	IN DISTRIBUTION
9.20 9.21 9.22		0	0			0	0	0	0					
9.22 9.23 9.24		0	0			0	0	0	0					
9.24 9.25 9.26		0	0			0	0	0	0					
9.27		0				0	0	0	0					
9.28 9.29		0	0			0	0	0	0					
9.30 9.31		0	0			0	0	0	0					
9.32 9.33		0 0	ō			0	0	0 0	0					
9.34 9.35		0 0	0			0 0	0 0	0 0	0					
9.36 9.37		0	0			0 0	0	0	0					
9.38 9.39		0				0	0	0 0	0					
9.40 9.41		0	0			0 0	0 0	0 0	0					
9.42 9.43		0	0			0	0 0	0 0	0					
9.44 9.45		0				0	0 0	0 0	0					
9.46 9.47		0				0	0 0	0 0	0					
9.48 9.49		0				0	0 0	0	0					
9.50 9.51		0	0			0	0	0	0					
9.52 9.53		0				0	0	0	0					
9.54 9.55		0				0	0	0	0					
9.56 9.57		0	0			0	0	0	0					
9.58 9.59		0	0			0	0	0	0					
9.60 9.61		0	0			0	0	0	0					
9.62 9.63		0				0	0	0	0					
9.64 9.65		0	0			0	0	0	0					
9.66 9.67		0	0			0	0	0	0					
9.68 9.69		0	0			0	0	0	0					
9.70 9.71		0	0			0	0	0	0					
9.72 9.73		0	0			0	0	0	0					
9.74 9.75		0	0			0	0	0	0					
9.76 9.77		0	0			0	0	0	0					
9.77 9.78 9.79		0	ō			0	0	Ō	0					
9.80		0	0			0	0	0	0					
9.81 9.82		0	0			0	0 0	0	0					
9.83 9.84 9.85		0	0			0	0	0	0					
9.86		0	0			0	0	0	0					
9.87 9.88		0	0			0	0	0	0					
9.89 9.90		0 0				0 0	0	0 0	0					
9.91 9.92		0	0			0	0	0	0					
9.93 9.94		0 0	0	0	0	0 0	0	0	0					
9.95 9.96 9.97		0	0		0 0	0 0								
9.97 9.98		0 0	0	0	0 0	0 0								

Exhibit No. BPI-5 - Buckeye Formula Rate Populated Page 11 of 33

Buckeye Power, Inc. SPECIFIED DEFERRED CREDITS - Actual Cycle Only PERIOD ENDED DECEMBER 31, 2019

(DEBIT) CREDIT

	COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E	COLUMN F	COLUMN G	COLUMN H	COLUMN I	COLUMN J	COLUMN K	COLUMN L	COLUMN M	COLUMN N	COLUMN O	
			BOOKS		BLE/NON-UTILITY	AVERAGE		FUNCTIONALIZATION AVERAGE			FUNCTIONALIZATION 12/31/2018			FUNCTIONALIZATION 12/31/2019		
9.99	ACCUMULATED DEFERRED FIT ITEMS	BALANCE AS OF 12-31-2018 0	BALANCE AS OF 12-31-2019 0		BALANCE AS OF 12-31-2019 0	ELECTRIC UTILITY (B+C+D+E)/2 0	GENERATION	TRANSMISSION	DISTRIBUTION	GENERATION 1	RANSMISSION E	DISTRIBUTION	GENERATION	TRANSMISSION I	DISTRIBUTION	
10		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11 11.01	DEFD STATE INCOME TAXES	0	0	0	0	0	0	0	0							
12 13	TOTAL ACCOUNT 283 ACCOUNT 283 - ARO-Related Deferals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	JURISDICTIONAL AMOUNTS FUNCTIONALIZED															
	TOTAL COMPANY AMOUNTS FUNCTIONALIZED REFUNCTIONALIZED BASED ON JURISDICTIONAL PLANT															
17 18	NOTE: POST 1970 ACCUMULATED DEFERRED INV TAX CRED. (JDITC) IN A/C 255															
18.01 18.02		0	0			0 0	0	0	0 0							
19 20	TOTAL ACCOUNT 255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Buckeye Power, Inc. ACCUMULATED DEFERRED INCOME TAX IN ACCOUNT 190 - Actual Cycle Only PERIOD ENDED DECEMBER 31, 2019

DEBIT (CREDIT)

COLUMN A	COLUMN B COLUMN C	COLUMN D COLUMN E	COLUMN F	COLUMN G COLUMN H COLUMN I	COLUMN J COLUMN K COLUMN L	COLUMN M COLUMN N COLUMN O
	PER BOOKS BALANCE AS BALANCE AS	NON-APPLICABLE/NON-UTILITY BALANCE AS BALANCE AS	AVERAGE ELECTRIC UTILITY	FUNCTIONALIZATION AVERAGE	FUNCTIONALIZATION 12/31/2018	FUNCTIONALIZATION 12/31/2019
ACCUMULATED DEFERRED FIT ITEMS	OF 12-31-2018 OF 12-31-2019	BALANCE AS BALANCE AS OF 12-31-2018 OF 12-31-2019	(B+C+D+E)/2	GENERATION TRANSMISSION DISTRIBUTION	GENERATION TRANSMISSION DISTRIBUTION	GENERATION TRANSMISSION DISTRIBUTION
1 ACCOUNT 190:						
2.01 2.02 2.03	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.04 2.05			0	0 0 0 0 0 0		
2.06 2.07	0 0 0		0 0	0 0 0 0 0 0		
2.08 2.09	0 0 0 0		0 0 0			
2.10 2.11 2.12	0 0 0 0 0 0		0	0 0 0 0 0 0 0 0 0		
2.13 2.14	0 0 0 0		0	0 0 0 0 0 0		
2.15 2.16 2.17	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.18 2.19	0 0		0			
2.20 2.21	0 0 0 0		0	0 0 0 0 0 0		
2.22 2.23 2.24			0 0 0	0 0 0 0 0 0 0 0 0		
2.25 2.26 2.27	0 0		0	0 0 0 0 0 0		
2.27 2.28 2.29			0 0 0	0 0 0 0 0 0 0 0 0		
2.30 2.31	0 0		0			
2.32 2.33	0 0 0 0		0	0 0 0 0 0 0		
2.34 2.35 2.36 2.37	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.37 2.38 2.39	0 0 0 0		0	0 0 0 0 0 0		
2.39 2.40 2.41	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.42 2.43	0 0		0			
2.44 2.45	0 0 0 0		0	0 0 0 0 0 0		
2.46 2.47 2.48	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.49 2.50	0 0 0		0	0 0 0 0 0 0		
2.51 2.52 2.53	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.55 2.55 2.56	0 0		0			
2.57	0 0 0 0		0	0 0 0 0 0 0		
2.58 2.59 2.60	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.61 2.62	0 0 0 0		0	0 0 0 0 0 0		
2.63 2.64 2.65			0 0 0	0 0 0 0 0 0 0 0 0		
2.66 2.67	0 0 0		0	0 0 0 0 0 0		
2.68 2.69 2.70	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		
2.71 2.72	0 0 0 0 0 0		0 0	0 0 0 0 0 0 0 0 0		
2.73 2.74	0 0 0 0		0	0 0 0 0 0 0		
2.75 2.76 2.77	0 0 0 0 0 0		0 0 0	0 0 0 0 0 0 0 0 0		

Exhibit No. BPI-5 - Buckeye Formula Rate Populated Page 13 of 33

Buckeye Power, Inc. ACCUMULATED DEFERRED INCOME TAX IN ACCOUNT 190 - Actual Cycle Only PERIOD ENDED DECEMBER 31, 2019

DEBIT (CREDIT)

COLUMN A	COLUMN B COLUMN C	COLUMN D COLUMN	E COLUMN F	COLUMN G COLUMN H COLUMN I	COLUMN J COLUMN K COLUMN L	COLUMN M COLUMN N COLUMN O
	PER BOOKS	NON-APPLICABLE/NON-UTILI		FUNCTIONALIZATION AVERAGE	FUNCTIONALIZATION 12/31/2018	FUNCTIONALIZATION 12/31/2019
			ELECTRIC			
ACCUMULATED DECEMBED SITUTEMO	BALANCE AS BALANCE AS			OFNERATION TRANSMISSION DISTRIBUTION	OFNERATION TRANSMISSION RIGTORIUTION	OFNERATION TRANSMISSION RIGTRIPUTION
ACCUMULATED DEFERRED FIT ITEMS	OF 12-31-2018 OF 12-31-2019	OF 12-31-2018 OF 12-31-2)19 (B+C+D+E)/2	GENERATION TRANSMISSION DISTRIBUTION	GENERATION TRANSMISSION DISTRIBUTION	GENERATION TRANSMISSION DISTRIBUTION
2.78 2.79	0 0		0			
2.80	0 0	0	0 0	0 0 0		
2.80 2.81	0 0	ő	ů ů			
2.82	0 0	0	0 0			
2.83 2.84	0 0	0	0 0			
2.84	0 0	0	0 0			
2.85 2.86	0 0	0	0 0			
2.86	0 0	0	0 0			
2.87	0 0	0	0 0			
2.88 2.89	0 0	0	0 0			
2.09	0 0	0	0 0	0 0 0		
2.91	0 0	0	0 0			
2.01	5 0		0	5 0 0		
3 TOTAL ACCOUNT 190	0 0	0	0 0	0 0 0	0 0 0	0 0 0
4 ACCOUNT 190 - ARO-Related Deferals	0 0	0	0 0	0 0 0	0 0 0	0 0 0

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet C Supporting Working Capital Rate Base Adjustments Buckeye Power, Inc.

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
			Materials	& Supplies				
Line Number			Source	Balance @ December 31, 2019	Balance @ December 31, 2018	Average Balance for 2019		
1		Transmission Projects Materials & Supplies	Company Records	0	0			
2		Other Transmission Materials & Supplies	FF1, p. 227, In 8, Col. (c) & (b) less Ln 1	0	0			
3		General Materials & Supplies	FF1, p. 227, In 11, Col. (c) & (b)	0	0			
4		Stores Expense (Undistributed) - Account 163	FF1, p. 227, In 16, Col. (c) & (b)	0	0			
Prepayment Balance Summary (Note 1) 100% Transmission Transmission Total Included								
5			Average of <u>YE Balance</u>	Excludable Balances	Transmission <u>Related</u>	Plant Related	Labor Related	in Ratebase (E)+(F)+(G)
6		Totals as of December 31, 2019	2,180,985		0	1,970,564	210,421	2,180,985
8		Totals as of December 31, 2018 Average Balance	2,488,420 2,334,703		-	985,282	228,842 219,632	1,090,493

Prepayments Account 165 - Balance @ 12/31/2019 100% Total Included 2019 YE Balance Excludable Transmission Plant Labor in Ratebase Description Balances 9 Acc. No. Related Related Related (E)+(F)+(G) Explanation 10 11 Prepaid Plant Insurance 1,970,564 1,970,564 165 1,970,564 Plant Related Insurance Policies Prepaid Taxes - Distribution -12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 Prepaid Interest - Distribution Health Savings Program PPD Sales AR Factoring - Retail Only -Prefunded Pension Expense SFAS 158 Offset SFAS 112 Overfunding Asset Plant Related Insurance Policies Prepaid Lease Labor Related Expense 210,421 Prepaid Expenses - Other 165 210,421 210,421 Miscellaneous - SFAS 158 Offset Prepaid Use Tax - Generation 2,180,985 Subtotal - Form 1, p 111.57.c 0 1.970.564 210,421 2.180.985

Prepayments Account 165 - Balance @ 12/31/ 2018

		<u>P</u>	repayments Account 165 - Bal	100%	Transmission	Transmission	Total Included		
31	Acc. No.	Description	2018 <u>YE Balance</u>	Excludable Balances	Transmission <u>Related</u>	Plant Related	Labor Related	in Ratebase (E)+(F)+(G)	Explanation
32	165	Prepaid Plant Insurance	2,259,578	-		2,259,578		2,259,578	Plant Related Insurance Policies
33				-				-	Prepaid Taxes - Distribution
34				-					
35				-			-	-	Prepaid Interest - Distribution
36				-			-		Health Savings Program
37				-					PPD Sales
38				-			-		AR Factoring - Retail Only
39				-			-		Prefunded Pension Expense
40				-			-		SFAS 158 Offset
41				-			-	-	SFAS 112 Overfunding Asset
42				-		-		-	Plant Related Insurance Policies
43				-		-	-		Prepaid Lease
44				-			-		Labor Related Expense
45				-			-		Labor Related Expense
46				-			-		Labor Related Expense
47				-			-		Labor Related Expense
48							-		Labor Related Expense
49	165	Prepaid Expenses - Other	228,842				228,842		Miscellaneous
50				-					SFAS 158 Offset
51					-			-	
52				-	-			-	Prepaid Use Tax - Generation
		Subtotal - Form 1, p 111.57.d	2,488,420	0	0	0	228,842	2,488,420	-

Note 1: Prepayments will exclude all prepaid federal and state income taxs and outstanding income tax refunds diaperating Companyies and Transcerfrom either prior federal or state audits or amemded income tax returns. Only federal and state income tax prepayments of income taxse which are includable are those applicable to periods subsequent to the date of the balance sheet as described in USofA Account 236.

Formula Rate WS D IPP Credits

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet D Supporting IPP Credits Buckeye Power, Inc.

<u>Line</u> Number	(A) <u>Description</u>	(B) <u>2019</u>
1	Net Funds from IPP Customers 12/31/2018 (2019 FORM 1, P269)	
2	Interest Accrual (Company Records - Note 1)	
3	Revenue Credits to Generators (Company Records - Note 1)	
4 5 6	Other Adjustments Accounting Adjustment (Company Records - Note 1)	-
7	Net Funds from IPP Customers 12/31/2019 (2019 FORM 1, P269)	-
8	Average Balance for Year as Indicated in Column B ((In 1 + In 7)/2)	

Note 1 On this worksheet Company Records refers to Buckeye Power, Inc.'s general ledger.

Exhibit No. BPI-5 - Buckeye Formula Rate Populated Page 16 of 33

> Formula Rate WS E Rev Credits

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet E Supporting Revenue Credits Buckeye Power, Inc.

Line		<u>Total</u>	<u>Non-</u>	
<u>Number</u>	Description	<u>Company</u>	Transmission	Transmission
1	Account 450, Forfeited Discounts (FF1 p.300.16.(b); Company Records - Note 1)		-	
2	Account 451, Miscellaneous Service Revenues (FF1 p.300.17.(b); Company Records - Note 1)		-	
3	Account 454, Rent from Electric Property (FF1 p.300.19.(b); Company Records - Note 1)		-	
4	Account 4560015, Associated Business Development - (Company Records - Notes 1, 2)		-	
5	Account 456 - Other Electric Revenues - (Company Records - Notes 1,2)		-	
5a	Account 457.1, Regional Control Service Revenues (FF1 p.300.23.(b); Company Records - Note 1)		-	
5b	Account 457.2, Miscellaneous Revenues (FF1p.300.24.(b); Company Records - Note 1)		-	
6	Subtotal - Other Operating Revenues (Company Total equals (FF1 p. 300.26.(b))	-	-	-
7	Accounts 4470004 & 5, Revenues from Grandfathered Transmission Contracts - (Company Records - Note 1)		-	
8	Total Other Operating Revenues To Reduce Revenue Requirement	-	-	-

Note 1 The total company data on this worksheet comes from the indicated FF1 source, or Buckeye Power, Inc.'s general ledger. The functional amounts identified as transmission revenue also come from the general ledger.

Note 2 The total of line 4 and line 5 will equal total Account 456 as listed on FF1 p.300.21-22.(b)

9 Facility Credits under PJM OATT Section 30.9

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Formula Rate WS F Misc Exp

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet F Supporting Allocation of Specific O&M or A&G Expenses Buckeye Power, Inc.

Line lumber	(A) <u>Item No.</u>	(B) <u>Description</u>	(C) <u>2019</u> <u>Expense</u>	(D) <u>100%</u> <u>Non-Transmission</u>	(E) <u>100%</u> Transmission <u>Proj.</u> Specific	Ē
		Regulatory O&M Deferrals & Amortizations				
1 2						
3						
4		Total	0			
-		Detail of Account 561 Per FERC Form 1				
5 6	FF1 p 321.85.b	561.1 - Load Dispatch - Reliability	0			
7	FF1 p 321.86.b	561.2 - Load Dispatch - Monitor & Operate Trans System	0			
		561.3 - Load Dispatch - Trans Service & Scheduling	0			
		561.4 - Scheduling, System Control & Dispatch Services 561.5 - Reliability, Planning and Standards Development	1,898,970 0			
		561.6 - Transmission Service Studies	0			
		561.7 - Generation Interconnection Studies	0			
		561.8 - Reliability, Planning and Standards Development Services	642,101			
14		Total of Account 561	2,541,071			
		Account 928				
15	FF1 p 323.189b	928 Regulatory Commission Expenses	(675)	(675)	-	
16			(0,0)	-	-	
17				-	-	
18 19				-		
20		Total (FERC Form 1 p.323.189.b)	(675)	(675)	-	
		Account 930.1				
21	FF1 p 323.191b	General Advertising Expenses		-	-	
22				-	-	
23				-	-	
24 25						
26					-	
27				-	-	
28 29				-	-	
30						
31				-		
32					-	
33 34				-	-	
35				1	-	
36				-	-	
37		Total (FERC Form 1 p.323.191.b)		-	-	
51				-	-	
		Account 930.2				
38 39	FF1 p 323.192b	Miscellaneous General Expenses	3,838,974	3,838,974		
59 40						
41				-	-	
42			_	-		
43		Total (FERC Form 1 p.323.192.b)	3,838,974	3,838,974	-	
			0,000,074	0,000,074	-	
		Account 924				
	FF1 p323.185b	Property Insurance	2,111,065	2,111,065		
45 46	Company Records	Property Insurance specific to Transmission Projects	-		-	
47						
48						
49		Total (FERC Form 1 p.323.191.b)	2 111 005	0 111 005		
49		iotai (i ERC FOIII i p.323. 191.0)	2,111,065	2,111,065	-	

Formula Rate WS G State Inc Tax Rate

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet G Supporting - Development of Composite State Income Tax Rate Buckeye Power, Inc.

Tennessee Income Tax Rate Apportionment Factor - Note 1 Effective State Tax Rate		0.00%
West Virginia Net Income Tax Rate Apportionment Factor - Note 1 Effective State Tax Rate		0.00%
Virginia Income Tax Rate Apportionment Factor - Note 1 Effective State Tax Rate		0.00%
Ohio Franchise Tax Rate Phase-out Factor Apportionment Factor - Note 1 Effective State Tax Rate		0.00%
Michigan Business Income Tax Rate Apportionment Factor - Note 1 Effective State Tax Rate		0.00%
Illinois Corporation Income Tax Rate Apportionment Factor - Note 1 Effective State Tax Rate		0.00%
Total Effective State Income Tax Rate	=	0.00%

Note 1 Apportionment Factors are determined as part of the Company's annual tax return for that jurisdiction.

Formula Rate WS H Other Taxes

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet H Supporting Taxes Other than Income Buckeye Power, Inc.

	(A)	(B)	(C)	(D)	(E)	(F)
Line No.	Account	Total <u>Company</u> NOTE 1	Property	Labor	Other	Non-Allocable
1	Revenue Taxes					
2	Gross Receipts Tax (Ohio kWh Tax)	-				-
3	Real Estate and Personal Property Taxes					
4	Real and Personal Property - Ohio	8,276,313	8,276,313			
5	Real and Personal Property - Other Jurisdiction 1	-	-			
6	Real and Personal Property - Other Jurisdictions	-	-			
7	Payroll Taxes					
8	Federal Insurance Contribution (FICA)	288,559		288,559		
9	Federal Unemployment Tax	-		-		
10	State Unemployment Insurance	-		-		
11	Production Taxes					
12	State Severance Taxes	-				-
13	Miscellaneous Taxes					
14	State Public Service Commission Fees	-				-
15	State Franchise Taxes	-			-	
16	State Lic/Registration Fee	-			-	
17	Misc. State and Local Tax	-			-	
18	Sales & Use	-			-	
19	Federal Excise Tax	-				-
20	State B&O Taxes	-				-
21	Michigan Single Business Tax					-
22	Total Taxes by Allocable Basis	8,564,872	8,276,313	288,559	-	-
	(Total Company Amount Ties to FFI p.114, Ln 14,(c))					
	NOTE 1: The detail of each total company number and its source	e in the FERC Form 1 is show	n on WS H-1.			
		Functional Pro	perty Tax Allocation	n		

		Production	Transmsission Projects	Other Transmission	Distribution	General	Total
23	Functionalized Net Plant (TCOS, Lns 41 thru 44)	1.210.217.413	2.630.867	12.656.644	-	18.515.203	1.244.020.127
24	Ohio Property Taxes (Company Records)	7,534,333	49.816	337,933	-	354,231	8,276,313
25	General Plant Property Taxes Funtionalized	336,893	2.227	15,110	-	(354,231)	
26	Funtional Property Tax Expenses	7,871,226	52,043	353,043	-	-	8,276,313
	JURISDICTION			,			
27	Percentage of Plant in JURISDICTION						
28	Net Plant in JURISDICTION (Ln 23 * Ln 27)	-	-	-	-	-	-
29	Less: Net Value of Exempted Generation Plant						
30	Taxable Property Basis (Ln 28 - Ln 29)	-	-	-	-	-	-
31	Relative Valuation Factor						
32	Weighted Net Plant (Ln 30 * Ln 31)	-	-	-	-	-	
33	General Plant Allocator (Ln 32 / (Total - General Plant))	0.00%	0.00%	0.00%	0.00%	-100.00%	
34	Functionalized General Plant (Ln 33 * General Plant)	-	-	-	-	-	-
35	WeightedJURISDICTION Plant (Ln 32 + 34)	-	-	-	-	-	-
36	Functional Percentage (Ln 35/Total Ln 35)	0.00%	0.00%	0.00%	0.00%	0.00%	
37	Functionalized Expense inJURISDICTION	-	-	-	-	-	-
	JURISDICTION						
38	Percentage of Plant in JURISDICTION						
41a	Net Plant in JURISDICTION (Ln 23 - Ln 26 - Ln 28)	-	-	-	-	-	-
39	Less: Net Value Exempted Generation Plant						
40	Taxable Property Basis	-	-	-	-	-	-
41	Relative Valuation Factor						
42	Weighted Net Plant (Ln 40 * Ln 41)	-	-	-	-	-	
43	General Plant Allocator (Ln 42 / (Total - General Plant)	0.00%	0.00%	0.00%	0.00%	-100.00%	
44	Functionalized General Plant (Ln 44 * General Plant)	-	-	-	-	-	-
45	Weighted JURISDICTION Plant (Ln 42 + 44)	-	-	-	-	-	-
46	Functional Percentage (Ln 45/Total Ln 45)	0.00%	0.00%	0.00%	0.00%	0.00%	
47	Functionalized Expense in JURISDICTION	-	-		-	-	-
48	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	
40		#NEF!	#REF!	#REF!	#NEF!	#NEF!	

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet H-1 Form 1 Source Reference of Company Amounts on WS H Buckeye Power, Inc. (A) (B) (C) (D) Line Total FERC FORM 1 No. Annual Tax Expenses by Type (Note 1) Company Tie-Back FERC FORM 1 Reference Sales and Revenue Taxes Gross Receipts Tax 1 Ohio kWh Tax 2 (A) (B) (C) (D) (E) (F) (G) Tax Year Total FERC FORM 1 Transmission Function Real Estate and Personal Propety Tax Detail Tax Year FERC FORM 1 Reference Factor Company Tie-Back (Note 2) (Note 2) Annual Tax Expenses by Type (Note 1) <u>Real Estate and Personal Property Taxes Total</u> (Ln 4 + Ln 5 + Ln 6 + Ln 7) 3 8,276,313 4 Real and Personal Property - Ohio 8,276,313 **Transmission Projects** Other Transmission 8,276,313 Real and Personal Property - Other Juridiction 1 5 -Real and Personal Property - Other Jurisdiction 2 6 7 Real and Personal Property - Other Jurisdictions (A) (B) (C) (D)

Line			FERC FORM 1	
No.	Annual Tax Expenses by Type (Note 1)	Company	Tie-Back	FERC FORM 1 Reference
8	Payroll Taxes	288,559		
9	Federal Insurance Contribution (FICA)	288,559		
			288,559	
10	Federal Unemployment Tax	-		
			-	

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet H-1 Form 1 Source Reference of Company Amounts on WS H Buckeye Power, Inc. 11 State Unemployment Insurance 12 Production Taxes State Severance Taxes 13 Miscellaneous Taxes 14 State Business & Occupation Tax 15 State Public Service Commission Fees 16 17 State Franchise Taxes State Lic/Registration Fee 18 Misc. State and Local Tax 19 20 Sales & Use 21 Federal Excise Tax Michigan Single Business Tax 22 Total Taxes by Allocable Basis 8,564,872 8,564,872 23 (Total Company Amount Ties to FFI p.114, Ln 14,(c))

Note 1: The taxes assessed on each operating company facility can differ from year to year and between operating companies by both the type of taxes and the states in which they were assessed. Therefore, for each company-the types and jurisdictions of tax expense recorded on this page could differ from the same page in the same company's prior year template or from this page in other operating companies' current year templates. For each update, this sheet will be revised to ensure that the total activity recorded hereon equals the total reported in account 408.1 on P. 114, Ln 14.(c) of the FERC Form 1.

Note 2: The transmission functional amounts for any Real Estate and Property taxes listed on pages 263 of the FERC Form 1 will be allocated using the transmission functional allocator calculated for each state in Worksheet H of the applicable year that the taxes were assessed. Real and Personal Property - Other Jurisdictions will be allocated using the Gross Plant Allocator from the applicable year.

Exhibit No. BPI-5 - Buckeye Formula Rate Populated Page 22 of 33

> Formula Rate WS I Reserved

Buckeye Power, Inc. Cost of Service Formula Rate Using 2019 FF1 Balances Worksheet I RESERVED FOR FUTURE USE Buckeye Power, Inc.

Formula Rate WS J PROJECTED RTEP RR

Buckeye Power, Inc. Cost of Service Formula Rate Using 2019 FF1 Balances Worksheet J Supporting Calculation of PROJECTED PJM RTEP Project Revenue Requirement Billed to Benefiting Zones Buckeye Power, Inc.

Page 1 of 2

I. Calculate Return and Income Taxes with basis point ROE increase for Projects Qualified for Regional Billing.

A. Determine 'R' with hypothetical basis point increase in ROE for Identified Projects

ROE w/o incentives (TCOS, In 152) Project ROE Incentive Adder			10.35%	
ROE with additional basis point incentive			10.35%	
Determine R (cost of long term debt, cost of preferred stock and equity percentage is from the TCOS, Ins 150 through 1				
	%	Cost	Weighted cost	
Long Term Deb	73.04%	4.85%	3.544%	
Preferred Stock	0.00%	0.00%	0.000%	
Common Stock	26.96%	10.35%	2.791%	
		R =	6.335%	

в.	Determine Return using	'R' with hypothetical	basis point ROE increase for Ide	ntified Proiects.

Rate Base (TCOS, In 68)	2,641,525
R (from A. above)	6.335%
Return (Rate Base x R)	167,334

C. Determine Income Taxes using Return with hypothetical basis point ROE increase for Identified Projects.

Return (from B. above) Effective Tax Rate (TCOS, In 110)	167,334 0.00%
Income Tax Calculation (Return x CIT)	-
ITC Adjustment	
Excess Deferred Income Tax	
Tax Affect of Permanent Differences	
Income Taxes	-

II. Calculate Net Plant Carrying Charge Rate (Fixed Charge Rate or FCR) with hypothetical basis point ROE increase.

A. Determine Annual Revenue Requirement less return and Income Taxes.

A. Determine Annual Revenue Requirement less return and income faxes.	
Annual Revenue Requirement (TCOS, In 1)	323,223
Lease Payments (TCOS, Ln 91) Return (TCOS, In 122)	167,334
Income Taxes (TCOS, In 121)	
Annual Revenue Requirement, Less Lease Payments, Return and Taxes	155,889
B. Determine Annual Revenue Requirement with hypothetical basis point increase in ROE.	
Annual Revenue Requirement, Less Lease Payments, Return and Taxes	155,889
Return (from I.B. above) Income Taxes (from I.C. above)	167,334
Annual Revenue Requirement, with Basis Point ROE increase	323.223
Depreciation (TCOS, In 96)	73,700
Annual Rev. Req, w/ Basis Point ROE increase, less Depreciation	249,523
C. Determine FCR with hypothetical basis point ROE increase.	
Net Transmission Plant (TCOS, In 42)	2,630,867
Annual Revenue Requirement, with Basis Point ROE increase	323,223
FCR with Basis Point increase in ROE	12.29%
Annual Rev. Req, w / Basis Point ROE increase, less Dep.	249,523
FCR with Basis Point ROE increase, less Depreciation	9.48%
FCR less Depreciation (TCOS, In 10)	9.48%
Incremental FCR with Basis Point ROE increase, less Depreciation	0.00%

III. Calculation of Composite Depreciation Rate

Average Transmission Plant Balance for 2019 (TCOS, In 19)	2,680,000
Annual Depreciation and Amortization Expense (TCOS, In 96)	73,700
Composite Depreciation Rate	2.75%
Depreciable Life for Composite Depreciation Rate	36.36
Round to nearest whole year	36

SUMMARY OF PROJECTE	D ANNUAL RTEP I	REVENUE REQUIREI Rev Require	MENTS W Incentives	Incentive Amounts
PROJECTED YEAR	2019	#N/A	#N/A	#N/A

Formula Rate WS J PROJECTED RTEP RR

Worksheet J - ATRR PROJECTED Calculation for PJM Projects Charged to Benefiting Zones

Page 2 of 2

1

IV. Determine the Revenue Requirement, and Additional Revenue Requirement for facilities receiving incentives.

A. Base Plan Facilities

Facilities receiving incentives accepted by FERC in Docket No.	
--	--

Facilities receiving incentives accepted by FERC in Docket No.	(e.g. ER05-925-000)	Current Projected Year ARR	#N/A
		Current Projected Year ARR w/ Incentive	#N/A
Project Description:		Current Projected Year Incentive ARR	#N/A

	Details											
Investment			Current Year				2019			OJECTED ANNUAL R		INTS:
Service Year (yyyy)			ROE increase accepte		ints)		- 9.48%	CUMULATIVE HISTORY				
Service Month (1-12) Useful life		36	FCR w/o incentives, le FCR w/incentives app	ess depreciation roved for these facilitie	es, less dep,		9.48% 9.48%	TEMPLATE BELO	V TO MAINTAIN HIS	HOUT INCENTIVES) F	ARRS OVER THE	AR
CIAC (Yes or No)			Annual Depreciation E	xpense			-	LIFE OF THE PRO	JECT.			
								RTEP Projected Rev.		RTEP Projected		
								Reg't.From Prior Year		Rev. Req't.From		
	vestment	Beginning	Depreciation	Ending	RTEP Rev. Req't.	RTEP Rev. Req't.	Incentive Rev.	Template		Prior Year Template		
	Year	Balance	Expense	Balance	w/o Incentives	with Incentives **	Requirement ##	w/o Incentives		with Incentives **		
	-	_	-		-	-	\$ -					
		-	-	-	-	-	\$- \$-					
	-	-	-		-		s -					
	-	-	-	-	-	-	\$ -					
	-		-	-	-	-	\$- \$-					
			-		-		\$ -					
	-	-	-	-	-	-	\$-					
	-	-	-	-	-	-	\$- \$-					
	-	-	-	-	-	-	\$-					
	-	-	-			-	s -					
	-	-	-	-	-	-	\$- \$-					
	-	-	-	-	-	-	\$-					
	-	-	-	-	-	-	\$ - \$ -					
	-		-		-		\$ - \$					
	-	-	-	-	-	-	\$-					
	-		-	-	-	-	\$- \$-					
			-		-		\$ -					
		-	-	-	-	-	s -					
	-	-	-	-	-	-	\$ - \$ -					
		-	-	-	-	-	\$ -					
	-	-		-	-	-	\$- \$-					
	-		-		-		\$ - \$					
	-	-	-	-	-	-	\$ -					
		-		-	-	-	\$- \$-					
	-	-	-	-	-	-	\$-					
	-	-	-	-	-	-	\$ -					
	-	-	-		-	-	\$ - \$ -					
	-	-	-	-	-	-	s -					
		-	-	-	-	-	s - s -					
	-	-	-	-	-	-	\$ -					
		-	-	-	-		s - s -					
	-	-	-	-	-	-	s - s -					
	-	-	-	-	-	-	s -					
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	-	-	-	-	-	-	s -					
	-	-	-	-	-	-	\$ - \$ -					
	-	-	-	-	-	-	\$-					
	-	-	-	-		-	s -					
	-	-	-	-	-	-	\$- \$-					
		-	-	-	-	-	\$-					
	-	-	-		-	-	\$ - \$ -					
	-		-	-	-	-	s -					

Project Totals

** This is the total amount that needs to be reported to PJM for billing to all regions.

This is the calculation of additional incentive revenue on projects deemed by the FERC to be eligible for an incentive return. This additional incentive requirement is applicable for the life of this specific project. Each year the revenue requirement calculated for PJM should be incremented by the amount of the incentive revenue calculated for that year on this project.

In order to calculate the proper monthly RTEP billing amount, PJM requires a 12 month revenue requirement for each RTEP project. As a result, notwithstanding the fact that the project was in service for a partial year, the project revenue requirement in the year that the project goes into service has been annualized (shown at the full-year level) so that PJM will collect the correct monthly billings.

Formula Rate WS K TRUE-UP RTEP RR

Buckeye Power, Inc. Cost of Service Formula Rate Using 2019 FF1 Balances Worksheet K Supporting Calculation of TRUE-UP PJM RTEP Project Revenue Requirement Billed to Benefiting Zones Buckeye Power, Inc.

2,680,000 73,700 2.75% 36.36 36 Page 1 of 2

Calculate Return and Income Taxes with 0 basis point ROE increase for Projects Qualified for Regional Billing.

A. Determine 'R' with hypothetical 0 basis point increase in ROE for Identified Projects

ROE w/o incentives (TCOS, In 152)	10.35%		
Project ROE Incentive Adder			0
ROE with additional 0 basis point incentive	e		10.35%
Determine R (cost of long term debt, cost	t of preferred stoc	ck and equity percentag	e is from the TCOS, Ins 150 through152)
	%	Cost	Weighted cost
Long Term Debt	73.04%	4.85%	3.544%
Preferred Stock	0.00%	0.00%	0.000%
Common Stock	26.96%	10.35%	2.791%
		R =	6.335%

		Rev Require	W Incentives	Incentive Amounts
RUE-UP YEAR	2019			
	As Projected in Prior Year WS J	#N/A	#N/A	#N/A
	Actual after True-up	#N/A	#N/A	#N/A
	True-up of ARR For 2019	#N/A	#N/A	#N/A

B. Determine Return using 'R' with hypothetical 0 basis point ROE increase for Identified Projects.

Rate Base (TCOS, In 68)	2,641,525
R (from A. above)	6.335%
Return (Rate Base x R)	167,334

I.

III.

C. Determine Income Taxes using Return with hypothetical 0 basis point ROE increase for Identified Projects.

Return (from B. above)	167,334
Effective Tax Rate (TCOS, In 110)	0.00%
Income Tax Calculation (Return x CIT)	-
ITC Adjustment	
Excess Deferred Income Tax	
Tax Affect of Permanent Differences	<u> </u>
Income Taxes	-

II. Calculate Net Plant Carrying Charge Rate (Fixed Charge Rate or FCR) with hypothetical 0 basis point ROE increase.

A. Determine Annual Revenue Requirement less return and Income Taxes.

Annual Revenue Requirement (TCOS, In 1)	323.223
Lease Payments (TCOS, Ln 91)	
Return (TCOS, In 122)	167,334
Income Taxes (TCOS, In 121)	
Annual Revenue Requirement, Less Lease Payments,	155,889
Return and Taxes	

B. Determine Annual Revenue Requirement with hypothetical 0 basis point increase in ROE.

	-
Annual Revenue Requirement, Less Lease Payments, Return and Taxes	155,889
Return (from I.B. above)	167,334
Income Taxes (from I.C. above)	
Annual Revenue Requirement, with 0 Basis Point ROE increase	323,223
Depreciation (TCOS, In 96)	73,700
Annual Rev. Req, w/ 0 Basis Point ROE increase, less	249,523
Depreciation	
C. Determine FCR with hypothetical 0 basis point ROE increase.	
Net Transmission Plant (TCOS, In 42)	2,630,867
Annual Revenue Requirement, with 0 Basis Point ROE increase	323,223
FCR with 0 Basis Point increase in ROE	12.29%
Annual Rev. Reg, w / 0 Basis Point ROE increase, less Dep.	249,523
FCR with 0 Basis Point ROE increase, less Depreciation	9.48%
FCR less Depreciation (TCOS, In 10)	9.48%
Incremental FCR with 0 Basis Point ROE increase, less Depreciation	0.00%
Calculation of Composite Depreciation Rate	
Calculation of Composite Depresiation Rate	
Average Transmission Plant Balance for 2019 (TCOS, In 19)	
Annual Depreciation and Amortization Expense (TCOS, In 96)	
Composite Depreciation Rate	
Depreciable Life for Composite Depreciation Rate	
Round to nearest whole year	

Formula Rate WS K TRUE-UP RTEP RR

Worksheet K - ATRR TRUE-UP Calculation for PJM Projects Charged to Benefiting Zones

Page 2 of 2

IV. Determine the Revenue Requirement, and Additional Revenue Requirement for facilities receiving incentives.

A. Base Plan Facilities

Facilities receiving incentive Project Description:	es accepted by FERC	in Docket No.				(e.g. ER05-925-000)	2019 F Prior Yr Projected Prior Yr True-Up True-Up Adjustment	Rev Require #N/A #N/A #N/A	W Incentives #N/A #N/A #N/A	Incentive Amounts #N/A #N/A #N/A	
Details												
Investment		Current Year					2019		UP OF PROJECT REVENUE REQUI			
Service Year (yyyy) Service Month (1-12)		FCR w/o incentives, le					- 9.48%	INPUT TRUE-UP	RY OF TRUED-UP ANNUAL REVEN P ARR (WITH & WITHOUT INCENTIV	ES) FROM EACH PRI	OR YEAR	
Useful life CIAC (Yes or No)	36	FCR w/incentives app Annual Depreciation E	proved for these facilitie Expense	s, less dep.			9.48%	LIFE OF THE P	OW TO MAINTAIN HISTORY OF TRI	UED-UP ARRS OVER	THE	
								RTEP Projected		RTEP Projected		
Investment Year	Beginning Balance	Depreciation Expense	Ending Balance	Average Balance	RTEP Rev. Req't. w/o Incentives	RTEP Rev. Req't. with Incentives *'	Incentive Rev. Requirement ##	Rev. Req't.From Prior Year WS J w/o Incentives	RTEP Rev Req't True-up w/o Incentives	Rev. Req't.From Prior Year WS J with Incentives **	RTEP Rev Req't True-up with Incentives **	True-up of Incentive with Incentives *
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Project Totals

** This is the total amount that needs to be reported to PJM for billing to all regions.

This is the calculation of additional incentive revenue on projects deemed by the FERC to be eligible for an incentive return. This additional incentive requirement is applicable for the life of this specific project. Each year the revenue requirement calculated for PJM should be incremented by the amount of the incentive revenue calculated for that year on this project.

Exhibit No. BPI-5 - Buckeye Formula Rate Populated Page 27 of 33

> Formula Rate WS L Reserved

Buckeye Power, Inc. Cost of Service Formula Rate Using 2019 FF1 Balances Worksheet L Reserved for Future Use Buckeye Power, Inc.

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet M Supporting Calculation of Capital Structure and Weighted Average Cost of Capital Buckeye Power, Inc.

		Average Balance of Common Equity								
Line				Less Undistributed Sub Earnings (Acct		Average Balance of				
No	Month (a)	Proprietary Capital (b)	Less: Preferred Stock (c)	216.1) (d)	Less AOCI (Acct 219.1) (e)	Common Equity (f)=(b)-(c)-(d)-(e)				
	(Note A)	(FF1 112.16)	(FF1 250-251)	(FF1 112.12)	(FF1 112.15)					
1	December Prior to Rate Year	442,942,180		-	-	442,942,180				
2	January	448,439,861	-	-	-	448,439,861				
3	February	452,480,308	-	-	-	452,480,308				
4	March	461,774,859	-	-	-	461,774,859				
5	April	461,619,733	-	-	-	461,619,733				
6	Мау	455,445,760	-	-	-	455,445,760				
7	June	459,173,407	-	-	-	459,173,407				
8	July	464,587,109	-	-	-	464,587,109				
9	August	468,936,092	-	-	-	468,936,092				
10	September	472,607,972	-	-	-	472,607,972				
11	October	463,928,200	-	-	-	463,928,200				
12	November	466,959,942	-	-	-	466,959,942				
13	December of Rate Year	470,797,434	-	-	-	470,797,434				
14	Average of the 13 Monthly Balances	460,745,604	-	-	-	460,745,604				

]	Average Balance of Long Term Debt						
				Acct 223	Acct 224		Gross Proceeds	
Line No	Month (a)	Acct 221 Bonds (b)	Less: Acct 222 Reacquired Bonds (c)	LT Advances from Assoc. Companies (d)	Senior Unsecured Notes (e)	Less: Fair Value Hedges (f)	Outstanding Long-Term Debt (g)=(b)-(c)+(d)+(e)-(f)	
	(Note A)	(FF1 112.18)	(FF1 112.19)	(FF1 112.20)	(FF1 112.21)	FF1, page 257, Col. (h) - Note 1		
15	December Prior to Rate Year	1,211,376,138	-	(111112.20)	95,000,000	1000 1	1,306,376,138	
16	January	1,209,775,359	-		83,000,000		1,292,775,359	
17	February	1,209,213,823	-		65,000,000		1,274,213,823	
18	March	1,193,392,323	-	-	73,000,000		1,266,392,323	
19	April	1,193,241,547	-	-	55,000,000		1,248,241,547	
20	May	1,192,708,060	-	-	45,000,000		1,237,708,060	
21	June	1,194,072,328	-	-	65,000,000		1,259,072,328	
22	July	1,180,334,553	-	-	50,000,000		1,230,334,553	
23	August	1,179,811,863	-	-	50,000,000		1,229,811,863	
24	September	1,221,187,571	-	-	15,000,000		1,236,187,571	
25	October	1,212,030,089	-		2,000,000		1,214,030,089	
26	November	1,209,471,700		-	2,000,000		1,211,471,700	
27	December of Rate Year	1,209,071,001	-	-	10,000,000		1,219,071,001	
28	Average of the 13 Monthly Balances	1,201,206,643	-	-	46,923,077	-	1,248,129,720	

NOTE 1: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (Page 257 Column H of the FF1)

Development of Cost of Long Term Debt Based on Average Outstanding Balance

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
29	Annual Interest Expense for 2019						
30	Interest on Long Term Debt - Accts 221 - 224 (256-257.33.i)			60,565,621			
	Less: Total Hedge Gain/Expense Accumulated from p 256-257, c	ol. (i) of FERC Form 1					
31	included in Ln 30 and shown in 50 below.			-			
32	Plus: Allowed Hedge Recovery From Ln 55 below.						
33	Amort of Debt Discount & Expense - Acct 428 (117.63.c)			-			
34	Amort of Loss on Reacquired Debt - Acct 428.1 (117.64.c)			-			
35	Less: Amort of Premium on Debt - Acct 429 (117.65.c)			-			
36	Less: Amort of Gain on Reacquired Debt - Acct 429.1 (117.66.c)			-			
37	Total Interest Expense (Ln 30 - 31 + 33 + 34 - 35 - 36)			60,565,621			
38	Average Cost of Debt for 2019 (Ln 37/ In 28 (g))			4.85%			

CALCULATION OF RECOVERABLE HEDGE GAINS/LOSSES

39 NOTE: The net amount of hedging gains or losses recorded in account 427 to be recovered in this formula rate should be limited to the effective portion of pre-issuance cash flow hedges that are amortized over the life of the underlying debt issuances. The recovery of a net loss or passback of a net gain will be limited to five basis points of the total Capital Structure. Amounts related to the ineffective portion of pre-issuance hedges, cash settlements of fair value hedges issued on Long Term Debt, post-issuance cash flow hedges, and cash flow hedges of variable rate debt issuances are not recoverable in this formula and are to be recorded in the "Excludable" column below.

	HEDGE AMOUNTS BY ISSUANCE (FROM p. 256-257 (i) of the FERC Form 1)	Total Hedge (Gain)/Loss for 2019	Less Excludable Amounts (See NOTE on Line 39)	Net Includable Hedge Amount	Remaining Unamortized Balance	Beginning	Ending
40				-			
41				-			
42				-			
43				-			
44				-			
45				-			
46				-			
47				-			
48				-			
49				-	-		
50	Total Hedge Amortization	-	-				

51 Hedge Gain or Loss Prior to Application of Recovery Limit (Sum of Lines 40 to 48)	-
52 Total Average Capital Structure Balance for 2019 (TCOS, Ln 153)	1,708,875,324
53 Financial Hedge Recovery Limit - Five Basis Points of Total Capital	0.0005
54 Limit of Recoverable Amount	854,438
55 Recoverable Hedge Amortization (Lesser of Ln 51 or Ln 54)	-

Amortization Period

Development of Cost of Preferred Stock

Preferred Stock				Average
56 0% Series - 0 - Dividend Rate (p. 250-251)		0.000%	0.000%	
57 0% Series - 0 - Par Value (p. 250-251)	\$		\$	
58 0% Series - 0 - Shares O/S (p.250-251)			-	
59 0% Series - 0 - Monetary Value (Ln 57 * Ln 58)		-	-	-
60 0% Series - 0 - Dividend Amount (Ln 56 * Ln 59)		-	-	•
61 0% Series - 0 - Dividend Rate (p. 250-251)		0.000%	0.000%	
62 0% Series - 0 - Par Value (p. 250-251)	\$		5 - U.UUU //	
63 0% Series - 0 - Shares O/S (p.250-251)	Ŷ		-	
64 0% Series - 0 - Monetary Value (Ln 62 * Ln 63)		-	-	
65 0% Series - 0 - Dividend Amount (Ln 61 * Ln 64)		-	-	
66 0% Series - 0 - Dividend Rate (p. 250-251)		0.000%	0.000%	
67 0% Series - 0 - Par Value (p. 250-251)	\$		\$ -	
68 0% Series - 0 - Shares O/S (p.250-251)			-	
69 0% Series - 0 - Monetary Value (Ln 67 * Ln 68) 70 0% Series - 0 - Dividend Amount (Ln 66 * Ln 69)		-	-	•
70 070 Series - 0 - Dividend Amodini (En 60 - En 69)		-	-	-
71 Balance of Preferred Stock (Lns 59, 64, 69)		-	-	- Year End Total Agrees to FF1 p.112, Ln 3, col (c) & (d)
72 Dividends on Preferred Stock (Lns 60, 65, 70)		-	-	-
73 Average Cost of Preferred Stock (Ln 72/71)		0.00%	0.00%	0.00%

Formula Rate WS N - Sale of Plant Held

Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet N - Gains (Losses) on Sales of Plant Held For Future Use Buckeye Power, Inc.

Note: Gain or loss on plant held for future are recorded in accounts 411.6 or 411.7 respectiviely. Sales will be functionalized based on the description of that asset. Sales of transmission assets will be direct assigned; sales of general assets will be functionalized on labor. Sales of plant held for future use related to generation or distribution will not be included in the formula.

	(A)	(B)	(C) Function	(D)	(E)	(F)	(G) Functional	(H) Functionalized	(I) FERC
Line	Date	Property Description	(T) or (G) T = Transmiss G = General	Basis sion	Proceeds	(Gain) / Loss	Allocator	Proceeds (Gain) / Loss	Account
1						-	0.000%	-	
2						-	0.000%	-	
3						-	0.000%	-	
4				Net (Gain) or L	oss for 2019			<u>-</u>	

Buckeye Power, Inc. PJM FORMULA RATE WORKSHEET P - TRANSMISSION DEPRECIATION RATES EFFECTIVE AS OF 1/1/2018 FOR SINGLE JURISDICTION COMPANIES

PLANT ACCT.	RATES Note 1
352.0	2.75%
353.0	3.00%
354.0	2.75%
354.0	2.75%
355.0	2.75%
355.0	2.75%
356.0	2.75%
356.0	2.75%
356.0	2.75%
356.0	2.75%
356.0	2.75%
357.0	2.75%
358.0	2.75%
	/

Reference:

Note 1: These are the weighted average of the depreciation rates in effect for Columbus Southern Power and Ohio Power prior to the merger of Columbus Southern into Ohio Power.

General Note:

Per the terms of the settlement in this case, AEP will make a 205 filing whenever a company's rates are changed by their commission(s), or if the methodology to calculate the jurisdictional allocator in multiple-statecompanies changes. Changes in the allocation factors will not necessitate a 205 filing.

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Buckeye Power, Inc. Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet Q - True-up With Interest

Reconciliation Revenue Requirer Year 2020 Available May 25,		2020 Revenue Requirement Forecast by October 31, 2019	=		True-up Adjustment - Over (Under) Recovery \$0		
Interest Rate on Amount of Ref from 35.19a	funds or Surcharges	Over (Under) Recovery Plus Interest	Average Monthly Interest Rate	Months	Calculated Interest	Amortization	Surcharge (Refund) Owed
An over or under collection wil	II be recovered prorata	over 2018, held for 2019 and returne	d prorate over 2020				
Calculation of Interest					Monthly		
January	Year 2020		0.0000%	12	wontiny		
February	Year 2020	-	0.0000%	12	-		-
March	Year 2020		0.0000%	10			
April	Year 2020	_	0.0000%	9	_		
May	Year 2020	-	0.0000%	8	-		-
June	Year 2020	-	0.0000%	7			-
July	Year 2020	-	0.0000%	6	-		-
	Year 2020	-	0.0000%	5	-		-
August September	Year 2020	-	0.0000%	3	-		-
October	Year 2020 Year 2020	-	0.0000%	4	-		-
		-			-		-
November	Year 2020 Year 2020	-	0.0000%	2 1	-		-
December	Year 2020	-	0.0000%	'-			-
					-		-
					A		
January through December	Voor 2021		0.0000%	10	Annual		
January through December	Year 2021	-	0.0000%	12	-		-
Over (Under) Recovery Plus In	toract Amortizad and D	acovered Over 12 Months			Monthly		
January	Year 2022	ecovered over 12 months	0.0000%		wontiny		
February	Year 2022	-	0.0000%		-	-	-
March	Year 2022	-	0.0000%		-	-	-
April	Year 2022	-	0.0000%		-	-	-
	Year 2022 Year 2022	-	0.0000%		-	-	-
May June	Year 2022	-	0.0000%		-	-	-
		-			-	-	-
July	Year 2022	-	0.0000%		-	-	-
August	Year 2022	-	0.0000%		-	-	-
September	Year 2022	-	0.0000%		-	-	
October	Year 2022	-	0.0000%		-	-	-
November	Year 2022	-	0.0000%		-	-	
December	Year 2022	-	0.0000%	-		-	-
December	Year 2022	-	0.0000%	-		-	-

True-Up Adjustment with Interest Less Over (Under) Recovery Total Interest

Note 1: The interest rate to be applied to the over recovery or under recovery amounts will be determined using the average monthly FERC interest rate (as determined pursuant to 18 C.F.R. Section 35.19a) for the twenty (20) months from the beginning of the rate year being trued-up through August 31 of the following year.