THE PUBLIC UTILITIES COMMISSION OF OHIO

IN THE MATTER OF THE FILING BY OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC ILLUMINATING COMPANY AND THE TOLEDO EDISON COMPANY OF A GRID MODERNIZATION BUSINESS PLAN.	**CASE NO. 16-481-EL-UNC**
IN THE MATTER OF THE FILING BY OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC ILLUMINATING COMPANY AND THE TOLEDO EDISON COMPANY OF AN APPLICATION FOR APPROVAL OF A DISTRIBUTION PLATFORM MODERNIZATION PLAN	**CASE NO. 17-2436-EL-UNC**
IN THE MATTER OF THE APPLICATION OF OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC ILLUMINATING COMPANY AND THE TOLEDO EDISON COMPANY TO IMPLEMENT MATTERS RELATING TO THE TAX CUTS AND JOBS ACT OF 2017.	**CASE NO. 18-1604-EL-UNC**
IN THE MATTER OF THE APPLICATION OF OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC ILLUMINATING COMPANY AND THE TOLEDO EDISON COMPANY FOR APPROVAL OF A TARIFF CHANGE.	**CASE NO. 18-1656-EL-ATA**

OPINION AND ORDER

Entered in the Journal on July 17, 2019

I. SUMMARY

{¶ 1} The Commission approves and adopts the Stipulation filed by various parties to these proceedings, as modified herein.

II. INTRODUCTION

{¶ 2} This Opinion and Order considers a stipulation and recommendation that purports to resolve four cases regarding three major proceedings, all involving Ohio Edison

Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (collectively, FirstEnergy or the Companies). Each of these cases, in isolation, is extremely intricate. With the Commission's recent focus on distribution grid modernization, these cases also exemplify the importance of our current initiatives. However, we believe that consolidation of these proceedings provided parties with unique opportunities for discussion that ultimately resulted in rate certainty for customers by ensuring the return of tax savings associated with the Tax Cuts and Jobs Act of 2017 (TCJA) and establishing the scope and cost of the initial phase of grid modernization investments by the Companies.

III. BACKGROUND

{¶ 3} The Companies are electric distribution utilities, as defined in R.C. 4928.01(A)(6), and public utilities as defined in R.C. 4905.02, and, as such, are subject to the jurisdiction of this Commission.

{¶ 4} R.C. 4928.141 provides that an electric distribution utility shall provide consumers within its certified territory a standard service offer (SSO) of all competitive retail electric services (CRES) necessary to maintain essential electric service to customers, including a firm supply of electric generation service. The SSO may be either a market rate offer in accordance with R.C. 4928.142 or an electric security plan (ESP) in accordance with R.C. 4928.143.

{¶ 5} On March 31, 2016, in Case No. 14-1297-EL-SSO, the Commission approved FirstEnergy's application for its fourth ESP (ESP IV). *In re Ohio Edison Co., The Cleveland Elec. Illum. Co., and the Toledo Edison Co. for Authority to Provide for a Std. Serv. Offer Pursuant to Section 4928.143, Revised Code, in the Form of an Elec. Security Plan*, Case No. 14-1297-EL-SSO (*ESP IV Case*), Opinion and Order (Mar. 31, 2016). Moreover, on October 12, 2016, the Commission issued the Fifth Entry on Rehearing in the *ESP IV Case*, further modifying *ESP IV*.

{¶ 6} Among other terms, *ESP IV* required the Companies to undertake grid modernization initiatives that promote customer choice in Ohio and to file a grid modernization business plan. *ESP IV Case*, Opinion and Order at 22, 95-96. Accordingly, on February 29, 2016, the Companies filed a grid modernization plan with the Commission in Case No. 16-481-EL-UNC (*Grid Mod Case*).[1] Specifically, the Companies' plan provided scenarios for the Companies to achieve smart meter installation, as well as other grid modernization investments like distribution automation (DA) and integrated volt-VAR control (IVVC) (Co. Ex. 2 at 5; Co. Ex. 1 at 5-6; business plan application at 13).

{¶ 7} Subsequently, in the Fifth Entry on Rehearing in the *ESP IV Case*, the Commission noted that we intended to undertake a detailed policy review of grid modernization and that FirstEnergy's grid modernization business plan would be addressed following such review. *ESP IV Case*, Fifth Entry on Rehearing at 96-97. The Commission commenced this detailed policy review in 2017, and, on August 29, 2018, the Commission released *PowerForward: A Roadmap to Ohio's Electricity Future* (Roadmap). In the interim, on December 4, 2017, the Companies filed an application for approval of a distribution platform modernization plan (DPM Plan) in Case No. 17-2436-EL-UNC (*DPM Plan Case*) as a complement to the initiative (Co. Ex. 1 at 3; Co. Ex. 2 at 5).[2] According to FirstEnergy, the DPM Plan was designed to be completed over a three-year period to provide enhanced reliability and timelier outage restoration (DPM Plan at 1).

{¶ 8} On January 10, 2018, the Commission opened an investigation into the financial impacts of TCJA on regulated utilities in this state. See *In re the Commission's Investigation of the Financial Impact of the TCJA on Regulated Ohio Utility Companies*, Case No. 18-47-AU-COI (*TCJA Investigation*), Entry (Jan. 10, 2018). On October 24, 2018, following an extensive comment period and hearing, the Commission directed public utilities to file

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1 The attorney examiner took administrative notice of the plan filed in the *Grid Mod Case* during the evidentiary hearing (Tr. Vol. 1 at 28).

2 The attorney examiner took administrative notice of the plan filed in the *DPM Plan Case* during the evidentiary hearing (Tr. Vol. 1 at 28).

applications not for an increase in rates, pursuant to R.C. 4909.18, by January 1, 2019, in order to return to consumers the tax impacts resulting from the TCJA. On October 30, 2018, the Companies filed an application to establish a process to resolve TCJA-related issues in Case No. 18-1604-EL-UNC (*TCJA Impacts Case*).

{¶ 9} On November 9, 2018, a stipulation and recommendation was filed, recommending a resolution for the above-captioned cases, by the following parties: the Companies; Staff; Direct Energy Services, LLC and Direct Energy Business, LLC (collectively, Direct Energy); Environmental Defense Fund (EDF); Ohio Energy Group (OEG); Industrial Energy Users – Ohio (IEU); Ohio Cable Telecommunications Association (OCTA); Ohio Hospital Association (OHA); and Interstate Gas Supply, Inc. (IGS). On January 25, 2019, a supplemental stipulation and recommendation was filed, which modified the original stipulation and included all of the original signatory parties as well as the Office of the Ohio Consumers' Counsel (OCC), The Northeast Ohio Public Energy Council (NOPEC), and Ohio Partners for Affordable Energy (OPAE). For purposes of this Opinion and Order, both stipulations will collectively be referred to as the Stipulation,[3] and all parties that have signed either the original or supplemental stipulation will collectively be referred to as the Signatory Parties.

{¶ 10} By Entry issued November 15, 2018, the attorney examiner consolidated the above-captioned cases and set a procedural schedule, including scheduling an evidentiary hearing to commence on February 4, 2019. The evidentiary hearing was later rescheduled and actually commenced on February 5, 2019. The hearing concluded on February 6, 2019. The following parties submitted timely initial briefs on March 1, 2019: the Companies; Staff; OPAE; the Smart Thermostat Coalition (STC); OCC; OCTA; OEG; IGS; the Environmental Law & Policy Center (ELPC), the Ohio Environmental Council (OEC), and the Natural

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3 The Commission recognizes that the supplemental stipulation modified certain portions of the original stipulation in this case. As the Signatory Parties have indicated that the provisions of the original stipulation are still applicable unless explicitly modified by the supplemental stipulation, the Commission will review the agreement with that same understanding.

Resources Defense Council (NRDC) (collectively, the Environmental Advocates); the Ohio Manufacturers' Association Energy Group (OMAEG); The Kroger Co. (Kroger); and Direct Energy. The Companies, Staff, STC, IEU, OEG, OCC, IGS, OMAEG, Environmental Advocates, Kroger, and Direct Energy filed timely reply briefs on March 12, 2019.[4]

IV. DISCUSSION

A. Procedural Issues

1. ATTORNEY EXAMINERS' DECISION TO GRANT THE COMPANIES' REQUEST FOR CONSOLIDATION OF THESE PROCEEDINGS

{¶ 11} Pursuant to Ohio Adm.Code 4901-1-15(F), a party that is adversely impacted by a procedural ruling issued under Ohio Adm.Code 4901-1-14 that files an interlocutory appeal that is not certified by the attorney examiner may raise the propriety of such ruling as a distinct issue for the Commission's consideration in the party's initial brief. OMAEG argues the attorney examiners' erred by granting the Companies' request for consolidation of these proceedings a mere two days after the request had been filed, noting that no party had an opportunity to respond to the motion. Entry (Nov. 15, 2018) at ¶ 11. OMAEG notes that the attorney examiner denied certification of OMAEG's interlocutory appeal on the first day of the evidentiary hearing, thus, allowing OMAEG to raise this issue for the Commission's consideration (Tr. Vol. I at 15). OMAEG contends that consolidation was inappropriate for these proceedings as the underlying issues raised, including the return of tax savings resulting from the TCJA to extensive investments in grid modernization, are in no way related to one another, apart from the fact that the Stipulation attempts to resolve them in one agreement. According to OMAEG, consolidation did not foster administrative efficiency; rather, it added unnecessary complexity where parties were forced to litigate unrelated, complex issues at the same time on an expedited basis. Moreover, OMAEG contends that the Companies should have to return the tax savings resulting from the TCJA

[4] OPAE filed correspondence on March 12, 2019, indicating that it would not be filing a reply brief.

and not condition those savings upon the Commission agreeing to increase their customers' bills to pay for expensive grid modernization projects.

{¶ 12} To the extent there are arguments against resolving the TCJA-related issues in conjunction with the grid modernization issues in these proceedings, OCTA notes that there is no prohibition against settlements of multiple or disparate issues. See, e.g., *In re the Application of Columbia Gas of Ohio, Inc., for Approval of a Alternative Form of Regulation to Establish a Capital Expenditure Program Rider Mechanism*, Case No. 17-2202-GA-ALT, Opinion and Order (Nov. 28, 2018). FirstEnergy goes further to argue that precedent, repeatedly supported by the Supreme Court of Ohio, demonstrates that the Commission has broad discretion in the management of proceedings before it, including deciding how to maintain the orderly flow of its business, avoiding undue delay, and eliminating any unnecessary duplication of effort. See, e.g., *Duff v. Pub. Util. Comm.*, 56 Ohio St.2d 367, 379, 384 N.E.2d 264 (1978); *Toledo Coalition for Safe Energy v. Pub. Util. Comm.*, 69 Ohio St.2d 559, 560, 433 N.E.2d 212 (1982); *In re Columbus S. Power Co.*, 129 Ohio St.3d 46, 2011-Ohio-2383, 950 N.E.2d 164. Moreover, FirstEnergy notes that the Commission has previously treated proposed stipulations aiming to fully resolve several pending complex proceedings as the commonality justifying consolidation, even when the resolved cases do not share any of the same underlying facts or fall under the same governing laws. *In re Duke Energy Ohio, Inc.*, Case No. 17-32-EL-AIR, et al. (*Duke Rate Case*), Entry (May 9, 2018), Opinion and Order (Dec. 19, 2018). Not only did consolidation allow for considerable administrative efficiency, FirstEnergy also contends that customers will swiftly receive the tax savings from the TCJA, consistent with the Commission's directives in the *TCJA Investigation*, as well as implement the first significant phase of grid modernization investment, consistent with the objectives established in the Roadmap and the *ESP IV Case*.

{¶ 13} The Commission agrees with FirstEnergy in that our attorney examiners are afforded a considerable amount of discretion and deference in determining whether consolidation is appropriate given the circumstances in any proceedings before us. In fact,

OMAEG is unable to cite to any Commission precedent in which we overturned an attorney examiner's decision to consolidate various cases that were the subject of a stipulated agreement. Contrarily, OCTA is quite correct that there are no specific criteria that must be met in order for a motion for consolidation to be granted by our attorney examiners and the Commission has allowed for consolidation of cases when a settlement involves disparate issues. *Duke Rate Case*, Opinion and Order (Dec. 19, 2018). As such, we find the attorney examiner acted appropriately by consolidating these four cases in an effort to promote administrative efficiency. Entry (Nov. 15, 2018) at 11. Moreover, we disagree with OMAEG's claim that the consolidated cases lack common issues. The consolidated cases address issues affecting customer rates which were not resolved by the Companies' most recent ESP; these issues include the scope and cost of FirstEnergy's grid modernization proposal and the timing and amount of tax savings to be returned to customers resulting from the TCJA. Thus, the resolution of the consolidated cases will serve to promote rate certainty for customers through the end of the current ESP. Furthermore, as noted by the attorney examiner at the beginning of the evidentiary hearing, OMAEG never claimed it experienced prejudice as a result of the consolidation, and, thus, its interlocutory appeal did not merit certification to the Commission (Tr. Vol. I at 15-16). We agree that OMAEG has not demonstrated that it experienced prejudice as a result of the consolidation; rather, as noted above and emphasized by the attorney examiners, the Commission and the intervening parties to these proceedings benefited by litigating several matters at once and avoiding expending additional time and resources in multiple separate proceedings.

2. ATTORNEY EXAMINERS' RULINGS REGARDING CROSS-EXAMINATION OF FIRSTENERGY WITNESS FANELLI

{¶ 14} Under Rule 401 of Ohio Rules of Evidence, relevant evidence is evidence that has any tendency to make the existence of any fact that is of consequence to the determination of the action more probable than it would be without the evidence. Kroger asserts that the attorney examiners erred and abused their discretion when they precluded further cross-examination of FirstEnergy witness Fanelli regarding the fact that an

agreement was reached with Staff before the intervening parties were even invited to an initial settlement meeting and, thus, resulting in the lack of serious bargaining (Tr. Vol. I at 41-42). According to Kroger, the precluded line of questioning was regarding the timing of the settlement, rather than the substance of those conversations.

{¶ 15} Similarly, Kroger contends that the attorney examiners also erred when they precluded sufficient cross-examination of FirstEnergy witness Fanelli regarding Rider DMR, as Kroger asserts is relevant to whether the Stipulation is in the best interest of ratepayers and the public interest (Tr. Vol. I at 155-165). Although the attorney examiner indicated that there may be similar benefits across different cases when sustaining an objection during Mr. Fanelli's cross-examination, Kroger asserts that the questioning was regarding whether the purported benefits of the initial phase of the Companies' grid modernization efforts (Grid Mod I) were indeed similar to those of Rider DMR in the *ESP IV Case*. As such, Kroger requests that the Commission reconsider these rulings pursuant to Ohio Adm.Code 4901-1-15(F).

{¶ 16} While Environmental Advocates do not explicitly request the Commission to revisit the attorney examiner rulings regarding the settlement negotiations, they do note that Ohio Rule of Evidence 408 allows the Commission to consider information regarding settlement discussion when the evidence is offered for a purpose other than demonstrating the validity or value of a particular claim. *Ohio Consumers' Counsel v. Pub. Util. Comm.*, 111 Ohio St.3d 300, 2006-Ohio-5789, 856 N.E.2d 213 (*Consumers' Counsel*). Environmental Advocates argue that questions regarding FirstEnergy's and Staff's negotiations prior to all-party negotiations beginning on November 1, 2018, and whether any proposed changes from intervening parties were considered, is vital to address in this case, especially given OCC's explicit acknowledgement that it signed on to the Stipulation with the understanding that it was not opposing, rather than supporting, the grid modernization provisions or their purported benefits (Co. Ex. 3 at 10; Tr. Vol. I at 36-38, 41; Tr. Vol. II at 317, 320; OCC Ex. 1 at 6).

{¶ 17} In its reply brief, FirstEnergy initially notes that, consistent with the Commission's longstanding policy of encouraging settlement in cases before it and the Ohio Rules of Evidence, the Commission has declined to allow parties to admit evidence concerning the content of confidential settlement negotiations. Specifically, the Companies assert that "[i]n order to promote confidentiality in settlement discussions, the Commission has available to it a very limited record with respect to the settlement process in any given proceeding." *In re Ohio Edison, The Cleveland Elec. Illum. Co., and The Toledo Edison Co.*, Case No. 12-1230-EL-SSO (*ESP III Case*), Opinion and Order (July 18, 2012) at 56-57. Moreover, FirstEnergy claims that the Supreme Court in *Consumers' Counsel* distinguished side agreements, which were determined to be discoverable for purposes of demonstrating a lack of serious bargaining, from confidential "communications made during settlement negotiations." *Consumers' Counsel* at ¶ 93. Despite the assertions of OMAEG, Kroger, and Environmental Advocates that the purported cross-examination only sought insight into whether parties were "essentially excluded" from negotiations, FirstEnergy argues that the disallowed questioning was going directly toward the content of those negotiations (Tr. Vol. I at 37-38, 41). FirstEnergy adds that these parties were allowed ample cross-examination pertaining to a variety of appropriate, non-confidential settlement discussion topics, including timing and duration of settlement discussions, the identities of negotiating parties, attendance at specific settlement meetings, and whether parties were afforded the opportunity to provide feedback (Tr. Vol. I at 34-38).

{¶ 18} The Companies also similarly conclude that the attorney examiner was correct to prevent cross-examination related to Rider DMR, reiterating that the attorney examiners have broad discretion to determine the scope of a proceeding, as well as the relevancy of evidence introduced during the course of that proceeding. The Companies further note that Rider DMR was approved to provide credit support to enable the Companies to access capital markets on more favorable borrowing terms, which could be used toward their grid modernization efforts or other business operation needs. *ESP IV Case*, Fifth Entry on Rehearing (Oct. 12, 2016) at ¶¶ 126, 185-188. As such, the Companies

assert that the questioning of Rider DMR was irrelevant. Even if the Commission determines that such questioning should have been allowed, FirstEnergy contends that Kroger has experienced no prejudice, as it devoted a substantial portion of its initial brief to this issue for the Commission's consideration.

{¶ 19} We find that the attorney examiner's prevention of further cross examination regarding the content of confidential settlement negotiations was well founded. Upon review of the hearing transcript, we agree with FirstEnergy and the presiding attorney examiner that the questioning was aimed toward the content of the settlement negotiations, rather than the timing of such negotiations. As such, this questioning was wholly inappropriate. More importantly, we agree with FirstEnergy that these parties were afforded considerable latitude for questioning related to the logistics of settlement negotiations and whether parties were afforded an opportunity to provide feedback (Tr. Vol. I at 34-38). Similarly, we find the attorney examiner was correct to limit questioning related to Rider DMR, as the record is clear that Rider DMR is not at issue and is not relevant for purposes of these proceedings.

3. PENDING MOTIONS FOR PROTECTIVE ORDER

{¶ 20} Numerous pending motions for protective order have been filed in the dockets of these proceedings regarding documents filed under seal. Specifically, FirstEnergy filed a motion for protective order on February 6, 2019, requesting protective treatment for certain information contained in the direct testimony of Environmental Advocates' witness Curt Volkmann, as it relates to the confidential and infrastructure security information of the Companies. In its memorandum in support, FirstEnergy notes that Environmental Advocates properly filed Mr. Volkmann's testimony with redactions on January 17, 2019. At the hearing, the parties indicated that, after further discussion, there was some agreement as to moving certain portions of Mr. Volkmann's redacted testimony into the public version of his testimony in order to maximize the amount of information in

the public domain (Tr. Vol. I at 20-24).[5] Thereafter, Environmental Advocates and FirstEnergy filed motions for protective order regarding their initial and reply briefs, respectively.[6] The briefs include references to the cost-benefit analysis and the public outage data and specific circuit information for which FirstEnergy requested protective treatment in its February 6, 2019 motion, as well as related exhibits introduced at hearing (ELPC Ex. 23-C). To date, no memoranda contra the motions for protective order have been filed and no parties to this proceeding have elected to contest the confidentiality of the subject information.

{¶ 21} The Commission notes that R.C. 4905.07 provides that all facts and information in the possession of the Commission shall be public, except as provided in R.C. 149.43, and as consistent with the purpose of Title 49 of the Revised Code. R.C. 149.43 specifies that the term "public records" excludes information which, under state or federal law, may not be released. The Supreme Court of Ohio has clarified that the "state or federal law" exemption is intended to cover trade secrets. *State ex rel. Besser v. Ohio State Univ.*, 89 Ohio St.3d 396, 399, 732 N.E.2d 373 (2000). Similarly, Ohio Adm.Code 4901-1-24 allows the Commission to protect the confidentiality of information contained in a filed document "to the extent that state or federal law prohibits release of the information, including where the information is deemed * * * to constitute a trade secret under Ohio law, and where non-disclosure of the information is not inconsistent with the purposes of Title 49 of the Revised Code." Moreover, Ohio law defines a trade secret as "information * * * that satisfies both of the following: (1) It derives independent economic value, actual or potential, from not being

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5 The identified limited portions of Mr. Volkmann's testimony continuing to require protective treatment, as provided in the motion for protective order, are pages 12 and 14-16, regarding information about customer minutes interrupted for specific storm events, page 19, containing the calculation based on specific customer per circuit data, and Ex. CV-4, containing the Companies' confidential responses to ELPC data requests concerning the Companies' cost-benefit analysis.

6 Environmental Advocates filed their motion for protective order in conjunction with its initial brief on March 1, 2019. FirstEnergy filed its motion for protective order in conjunction with its reply brief on March 12, 2019. Environmental Advocates note that they have filed documents under seal given FirstEnergy's assertions that the information qualifies as trade secret information; however, Environmental Advocates do not concede that the information does, in fact, qualify for confidential treatment and reserves the right, pursuant to the non-disclosure agreement, to contest that classification.

generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use. (2) It is the subject of efforts that are reasonable under the circumstances to maintain its secrecy." R.C. 1333.61(D).

{¶ 22} Applying the requirements that the information have independent economic value and be the subject of reasonable efforts to maintain its secrecy pursuant to R.C. 1333.61(D), as well as the six-factor test set forth by the Supreme Court of Ohio in *State ex rel. Plain Dealer v. Ohio Dept. of Ins.*, 80 Ohio St.3d 513, 524-525, 687 N.E.2d 661 (1997), we find that the information filed under seal in these dockets contains trade secret information, some of which is related to infrastructure security. Its release, therefore, is prohibited under state law. We also find that nondisclosure of this information is not inconsistent with the purposes of Title 49 of the Revised Code. Finally, we note that the filings and documents have been redacted to remove the confidential information and the public versions of the pleadings and documents have been docketed in this proceeding. We also note that protective treatment of this information is consistent with Commission precedent. *In re the Application of Duke Energy Ohio, Inc.*, Case No. 17-32-EL-AIR, et al., Opinion and Order (Dec. 19, 2018) at ¶ 158-164; *In re the Application of Duke Energy Ohio, Inc.*, Case No. 10-2326-GE-RDR, Entry (Jan. 25, 2012); *In re the Application of Duke Energy Ohio, Inc.*, Case No. 07-974-EL-UNC, et al., Entry (May 19, 2010). Accordingly, we find that all pending motions for protective order are reasonable and should be granted. Further, the protective orders previously granted in these proceedings shall be extended in accordance with the time frame set forth below.

{¶ 23} Ohio Adm.Code 4901-1-24(F) provides that, unless otherwise ordered, protective orders issued pursuant to Ohio Adm.Code 4901-1-24(D) automatically expire after 24 months. The attorney examiner finds that confidential treatment shall be afforded to the information filed under seal for a period ending 60 months from the date of a final, appealable order in these proceedings. Until that time, the Docketing Division shall maintain, under seal, the information filed confidentially. Further, Ohio Adm.Code 4901-1-

24(F) requires a party wishing to extend a protective order to file an appropriate motion at least 45 days in advance of the expiration date. If a party wishes to extend its confidential treatment, it should file an appropriate motion at least 45 days in advance of the expiration date. If no such motion to extend the confidential treatment is filed, the Commission may release the information without prior notice.

B. Summary of the Stipulation

{¶ 24} As noted above, the original stipulation was filed on November 9, 2018, and the supplemental stipulation was filed on January 25, 2019. The following includes a non-exhaustive list of the provisions of the Stipulation:

1. TCJA RESOLUTION

{¶ 25} The Companies agree to refund all tax savings associated with the TCJA including riders, tax savings not reflected in riders, and the return over time of all of the normalized and non-normalized excess accumulated deferred income tax (ADIT) from January 1, 2018. The Companies will credit tax savings through a new credit mechanism established for each company, which will be reconciled on an annual basis. (Co. Ex. 1 at 7-8.)

{¶ 26} The rate allocation for the new credit mechanism for current tax savings not reflected in riders and the excess ADIT amortizations will be allocated to residential and non-residential rate schedules based on the agreed-upon allocation factors (Co. Ex. 3 at 2, Attach. E).

{¶ 27} Annual amortization of excess ADIT related to the TCJA flowing through the pole attachment tariff will be removed from the amounts included in the TCJA savings credit mechanism (Co. Ex. 1 at 10).

2. GRID MODERNIZATION – GENERALLY

{¶ 28} Individual plans will be implemented for each operating company so that customers in all three service areas will benefit from the grid modernization investments, including: advanced metering infrastructure (AMI), a Meter Data Management System (MDMS) with associated systems and processes needed to enable advanced data access; DA; IVVC; and an Advanced Distribution Management System (ADMS). Rates specific to each operating company will be individually calculated based on the costs to and benefit for each operating company (Co. Ex. 1 at 10).

3. GRID MODERNIZATION – PROJECTS

a. Positive Cost-Benefit Analysis

{¶ 29} The Companies, Staff, and other Signatory Parties agree that Grid Mod I produces a positive cost-benefit analysis, on a net present value (NPV) basis assuming 20 years of operation (Co. Ex. 1 at 10-11).

b. Cost Recovery and Audit Process

{¶ 30} The Companies will be authorized to recover their actual capital costs up to $516 million of Grid Mod I assets through FirstEnergy's Advanced Metering Infrastructure/Modern Grid Rider (Rider AMI). The Stipulation also notes that, when appropriate, the Companies should utilize competitive procurement methods to acquire Grid Mod I assets. (Co. Ex. 1 at 10-11.) None of the $516 million may be used to fund Distributed Energy Resources (DER) services located on the customer side of the meter (Co. Ex. 3 at 3). Grid Mod I will be constructed over a three-year period, with charges to customers including a return on equity (ROE) to calculate the return on capital investments that is equal to the approved American Transmission Systems, Inc. (ATSI) ROE, but shall not exceed 10.38 percent (Co. Ex. 3 at 3).

{¶ 31} All used and useful costs associated with Grid Mod I will be recovered under the Companies' approved Rider AMI as authorized in the *ESP IV Case*, as modified by the

Stipulation. Capital costs associated with AMI investments, including advanced meters and supporting communications networks, will be recovered over a depreciable life of 15 years, with all other investments being recovered pursuant to the depreciation rates authorized in Case No. 07-551-EL-AIR. (Co. Ex. 1 at 11.)

{¶ 32} Incremental operation and maintenance (O&M) costs will be limited to only such costs which are actual, demonstrable, and truly incremental to the O&M costs collected in base rates. Further, no incremental O&M costs associated with Grid Mod I shall be eligible for recovery over an aggregate of $139 million for the first three years of deployment, which includes the $72.2 million for the retirement of non-AMI meters. (Co. Ex. 1 at 11-12.)

{¶ 33} The Companies shall include their actual capital and incremental O&M cost records as part of their annual Rider AMI audit application, consistent with the process approved in the *ESP III Case* and continued in the *ESP IV Case*. Annual audits will include, but not be limited to, the following: on-site inspections of new capital assets; tracing capital expenses from continuing property records, invoices, and other supporting documentation to the used and useful assets; verification of proper accounting and computation of annual property tax expense, state, local, and federal income tax expenses, and depreciation expense; verification that incremental labor O&M expense included for recovery in Rider AMI is only associated with employees dedicated to the Grid Mod I plan and in roles not already recovered in current base rates; verification that non-labor O&M expenses are incremental; verification of proper accounting for Rider AMI revenues; and verification that the Grid Mod I investments are used and useful and were prudently incurred, with any disputes to be resolved via the process agreed upon by the Signatory Parties. (Co. Ex. 1 at 12-13; Co. Ex. 3 at 3.)

{¶ 34} The Companies will include the following language on their Rider AMI tariffs: "This Rider is subject to reconciliation including, but not limited to, increases or refunds. Such reconciliation shall be based solely upon the results of audits ordered by the Commission in accordance with the July 18, 2012 Opinion and Order in Case No. 12-1230-

EL-SSO, and the March 31, 2016 Opinion and Order in Case No. 14-1297-EL-SSO and upon the Commission's orders in Case Nos. 18-47-AU-COI, 16-481-EL-UNC, 17-2436-EL-UNC, 18-1604-EL-UNC, and 18-1656-EL-ATA." (Co. Ex. 3 at 4).

c. Grid Mod Collaborative Group

{¶ 35} The Companies will create and facilitate a grid modernization collaborative working group (Collaborative Group), which will include OCC and NOPEC, among others, to update stakeholders on the status of the project throughout implementation of the Grid Mod plans and to provide for customer input and advice. Additionally, once per quarter, the Companies will facilitate a group to gather stakeholder input associated with data access systems and processes. (Co. Ex. 1 at 14; Co. Ex. 3 at 4.)

d. Advanced Meter Deployment and Data Enhancement

{¶ 36} The Companies will install 700,000 advanced meters along with the necessary supporting communications infrastructure, a MDMS, and associated systems and process. The Companies will also provide a map of where AMI is being deployed with dates of deployment and an AMI tag on the Customer Information List provided to CRES providers. The AMI deployment will utilize a scalable MDMS and will use the necessary and generally accepted standards to implement a Home Area Network (HAN) in order to allow customers to connect qualified devices. (Co. Ex. 1 at 14-15.)

{¶ 37} The Companies will also implement data access enhancements for customers and CRES providers, including the necessary upgrades to systems and processes for wholesale market settlements, i.e., calculating and settling individual total hourly energy obligation (THEO), peak load contribution (PLC), and network service peak load (NSPL) values for each customer, instead of relying on generic load profiles. CRES data transmitted to PJM Interconnection, LLC will be, at a minimum, hourly interval, and data utilized and transmitted to CRES providers will be at the metered level. The THEO, PLC, and NSPL data will be made available to authorized CRES providers, consistent with Ohio Adm.Code

4901:1-10-24 through the pre-enrollment list and electronic data interchange (EDI) transactions, as applicable. The Companies will also allow CRES providers to access the data through an Application Program Interface (API). There will be no fees charged to customers or CRES providers accessing data provided via EDI, customer portal, or supplier portal, including data accessed through API. The Companies will also develop a process for CRES providers to provide customer consent in order to access data for prospective customers. (Co. Ex. 1 at 15-17.)

{¶ 38} Within six months of an Opinion and Order in these proceedings, and after consultation with the Collaborative Group, the Companies will propose a time-varying rate offering for non-shopping customers, which will be designed to achieve the energy and capacity savings detailed in the cost-benefit analysis and should leverage enabling devices, e.g. smart thermostats. The Companies will work with suppliers to have data ready for a supplier-offered time-of-use product to customers upon the validation, editing, and estimating (VEE) certification of AMI meters. Once there are either (a) at least three suppliers offering products utilizing AMI data or (b) at least three different types of time-varying products utilizing AMI data, then the Companies, with Commission approval, will withdraw their SSO time-of-use rate offering. (Co. Ex. 1 at 18.)

{¶ 39} Within six months of the Opinion and Order in these proceedings, the Companies will meet with the Collaborative Group and subsequently submit a plan to Staff detailing the time-varying rate options it reasonably believes will be offered to retail customers by CRES providers (Co. Ex. 1 at 18).

e. DA and IVVC Deployment

{¶ 40} The Companies will install DA on at least 200 circuits and IVVC on at least 202 circuits, after collaborating with Staff to identify and select the circuits for DA and IVVC investments in order to maximize customer benefits (Co. Ex. 1 at 19). DA deployment in conjunction with ADMS will improve reliability and outage management, while the IVVC deployment in conjunction with ADMS will optimize voltage management. Any energy

and peak demand reduction savings resulting from the installation of AMI, DA, and IVVC equipment shall count towards compliance with the Companies' energy efficiency and peak demand reduction (EE/PDR) benchmarks. The Companies will work with the Signatory Parties to identify best practices and utilize technologies to achieve energy savings associated with the deployment of IVVC with the objective of achieving four percent energy savings when Grid Mod I technologies are fully deployed. The Companies agree not to count the energy savings produced from these smart grid investments towards shared savings while the 2017-2019 EE/PDR plan is in effect. (Co. Ex. 1 at 19-21.)

f. Commitment for Reliability Standards

{¶ 41} The Companies agree to file an application under Ohio Adm.Code 4901:1-10-10(B)(7) to revise their reliability performance standards established in Case No. 09-759-EL-ESS, within six months of the issuance of a final Opinion and Order in these cases, and again within a year after Grid Mod I deployment is completed (Co. Ex. 1 at 21).

g. ADMS Deployment

{¶ 42} The Companies will install an ADMS, which will be designed to support a broad range of current and future distribution management and optimization, including, but not limited to: fault isolation and system restoration, integration of DER, use of the information in distribution planning efforts, more efficient utility operation and planning actions, and integration with existing and future utility investments, including MDMS and supervisory control and data acquisition (SCADA) system (Co. Ex. 1 at 21).

h. Performance Metrics

{¶ 43} The Companies and Staff agree that a set of performance metrics will measure the status of deployment and related impacts from grid modernization investments, including, but not limited to, metrics related to the number of certified AMI meters, the number of customers with such meters shopping each month broken out by customer class, customers with AMI meters subject to disconnection or tampering charges,

customer impact measures, circuit information for circuits equipped with DA and whether DA operated as expected on a monthly basis, ADMS utilization metrics, and IVVC energy efficiency metrics. Performance metrics will be included in the workpapers submitted to Staff in support of the Rider AMI quarterly updates. (Co. Ex. 1 at 22, Attach. C; Co. Ex. 3 at 8.)

i. Grid Mod Consultant

{¶ 44} Midway through the implementation period, Staff will perform an operational benefits assessment and a review or will obtain a consultant to conduct an operational benefits assessment and review, to be completed prior to the commencement of the Companies' next projected phase of grid modernization investments (Grid Mod II), to evaluate whether the actual functionality and performance of the project is consistent with the planned specifications. The consultant may also conduct an independent cost-benefit analysis for this project, which could include a review and possible increase or decrease to the level of operational savings credited to the revenue requirement of Rider AMI during Grid Mod I. The reviews shall also include an evaluation of the sufficiency and prudence of the Companies' efforts and calculations to maximize actual salvage or sale net proceeds, and the results of the evaluation may include a recommendation on the Companies' efforts to maximize actual salvage or sale net proceeds going forward. The results of the reviews may also be incorporated into future deployment of the Companies' grid modernization investment to ensure the goals of the investments are being met. The cost of the consultant shall be recovered through Rider AMI, and such costs are not subject to the $139 million cap. (Co. Ex. 3 at 5-6.)

j. Crediting of Operational Savings

{¶ 45} Operational savings that are produced by the investment and accrue to the Companies will be credited against the revenue requirement of Rider AMI during the quarterly update and reconciliation process. For the first three years of Grid Mod I deployment, the amount of the credit will be fixed at: Year 1 - $0.05 million; Year 2 - $0.90

million; and Year 3- $3.28 million. The level of operational savings will be reviewed by the third-party consultant midway through Grid Mod I and may be used to modify the level of operational savings, following Commission approval. (Co. Ex. 1 at 23-24, Attach. D; Co. Ex. 3 at 6.)

k. Grid Mod II Development

{¶ 46} During the term of this plan, the Companies agree to begin development of Grid Mod II using these or other technologies in order to facilitate a cost-effective, timely transition between Grid Mod I and Grid Mod II. The Companies and Staff will initiate discussions with any interested Signatory Parties no later than June 1, 2020, regarding the deployment of Grid Mod II, including reliability benefits arising from Grid Mod I deployment. (Co. Ex. 1 at 24-25.)

l. Capital Investment Levels

{¶ 47} The Companies' total capital spend during Grid Mod I shall not exceed $516 million in the aggregate. Other related Grid Mod I distribution system upgrades include the $16 million for AMI related distribution expenditures and up to $50 million in distribution platform modernization work as outlined in Case No. 17-2436-EL-UNC, i.e., new circuit tie miles, reconductoring, new reclosers, and associated communications infrastructure, and SCADA devices on substations and circuits. The $66 million reserved for these upgrades will not result in an increase to the $516 million Grid Mod I spending cap. (Co. Ex. 3 at 7.)

m. Pole Attachment Rates

{¶ 48} The Companies have filed an application in Case Nos. 18-563-EL-ATA, 18-564-EL-ATA, and 18-565-EL-ATA proposing the following pole attachment rates: The Cleveland Electric Illuminating Company - $11.88; Ohio Edison Company - $11.48; and The Toledo Edison Company - $9.68. The Signatory Parties agree that these revised rates reflect the inclusion of the Companies' respective excess ADIT balances as of December 31, 2017.

The Companies will also adhere to the provisions of the Stipulation regarding their next applications to adjust their pole attachment rates and continue the collaborative effort with OCTA to ensure their future pole attachment rate adjustments accurately reflect the impacts from the TCJA as they relate to the Federal Communications Commission's pole attachment formula. (Co. Ex. 1 at 25-28.)

C. Consideration of the Stipulation

{¶ 49} Ohio Adm.Code 4901-1-30 authorizes parties to Commission proceedings to enter into a stipulation. Although not binding upon the Commission, the terms of such an agreement are accorded substantial weight. C*onsumers' Counsel v. Pub. Util. Comm.*, 64 Ohio St.3d 123,125, 592 N.E.2d 1370 (1992), citing *Akron v. Pub. Util. Comm.*, 55 Ohio St.2d 155, 157, 378 N.E.2d 480 (1978).

{¶ 50} The standard of review for considering the reasonableness of a stipulation has been discussed in a number of prior Commission proceedings. *See, e.g.*, *In re Cincinnati Gas & Elec. Co.*, Case No. 91-410-EL-AIR, Order on Remand (Apr. 14, 1994); *In re Western Reserve Telephone Co.*, Case No. 93-230-TP-ALT, Opinion and Order (Mar. 30, 1994); *In re Ohio Edison Co.*, Case No. 91-698-EL-FOR, et al., Opinion and Order (Dec. 30, 1993); *In re The Cleveland Elec. Illum. Co.*, Case No. 88-170-EL-AIR, Opinion and Order (Jan. 31, 1989); *In re Restatement of Accounts and Records,* Case No. 84-1187-EL-UNC, Opinion and Order (Nov. 26, 1985). The ultimate issue for our consideration is whether the agreement, which embodies considerable time and effort by the signatory parties, is reasonable and should be adopted. In considering the reasonableness of a stipulation, the Commission has used the following criteria:

(1) Is the settlement a product of serious bargaining among capable, knowledgeable parties?

(2) Does the settlement, as a package, benefit ratepayers and the public interest?

(3) Does the settlement package violate any important regulatory principle or practice?

{¶ 51} The Supreme Court of Ohio has endorsed the Commission's analysis using these criteria to resolve cases in a manner economical to ratepayers and public utilities. *Indus. Energy Consumers of Ohio Power Co. v. Pub. Util. Comm.*, 68 Ohio St.3d 559, 629 N.E.2d 423 (1994), citing *Consumers' Counsel* at 126. The Supreme Court of Ohio stated in that case that the Commission may place substantial weight on the terms of a stipulation, even though the stipulation does not bind the Commission.

1. IS THE SETTLEMENT A PRODUCT OF SERIOUS BARGAINING AMONG CAPABLE, KNOWLEDGEABLE PARTIES?

a. Party Arguments

{¶ 52} A majority of the Signatory Parties, including FirstEnergy, Direct Energy, OEG, IGS, OCTA, and Staff, address the first criterion and conclude that the Stipulation represents a settlement among a diverse group of capable and knowledgeable parties that have participated in complex regulatory proceedings before the Commission and are represented by experienced counsel familiar with Commission proceedings (Co. Ex. 2 at 7-8; Co. Ex. 3 at 10; Co. Ex. 4 at 3-4; OCTA Ex. 1 at 4). FirstEnergy claims that settlement negotiations lasted over several months, noting that the Signatory Parties benefited from a thorough and lengthy discovery process in the *Grid Mod Case* and the *DPM Plan Case* and several intervenors also actively participated in the Commission's grid modernization initiative. As such, FirstEnergy contends that most of the parties to these proceedings are very familiar with the underlying grid modernization issues that are the subject of the proposed Stipulation. Similarly, the Companies assert that these parties are equally capable of discussing the tax issues related to the TCJA, noting that several parties in these proceedings, namely OCC, OPAE, OMAEG, Kroger, OCTA, OEG, IEU, IGS, NOPEC, and EDF, also participated in the *TCJA Investigation*.

{¶ 53} Beginning as early as June 2018, the Companies state that they began meeting with Staff to determine whether a settlement agreement was possible to resolve the *TCJA Impacts Case*, the *Grid Mod Case*, and the *DPM Plan Case*. Thereafter, on October 31, 2018, the Companies aver that they invited other stakeholders to a meeting to be held on November 1, 2018, at which the Companies and Staff presented a proposed settlement framework and solicited feedback on the proposal. After the initial meeting, FirstEnergy claims that it met with those parties that were unable to attend the initial meeting, as well as conducted several small group meetings with various stakeholders to continue settlement negotiations. As a result, the original stipulation was filed on November 9, 2018. However, settlement negotiations continued for those who elected not to sign the original stipulation, resulting in the filing of the supplemental stipulation on January 25, 2019. FirstEnergy, OEG, IGS, Staff, and OCTA also point out that the Signatory Parties encompass a wide range of stakeholder interests and include representatives of residential, commercial, and industrial customers, hospitals, small business, a trade association for the cable telecommunications industry, an environmental advocate, a coalition of local governments, low and moderate-income customers, and CRES providers (Co. Ex. 1 at 31; Co. Ex. 3 at 10). On a final note, while Environmental Advocates' witness Curt Volkmann alleges that the "review and approval process for the Stipulation has been rushed and opaque," FirstEnergy argues that Mr. Volkmann does not claim, or present any supporting evidence, that the Stipulation fails to satisfy the first criterion.

{¶ 54} To the contrary, OMAEG, Environmental Advocates, and Kroger assert that the rushed settlement process that did not incorporate all stakeholders resulted in an agreement that is not the product of serious bargaining among capable, knowledgeable parties. OMAEG, Environmental Advocates, and Kroger initially note that, although Staff and the Companies had been negotiating for over four months without any stakeholder input, FirstEnergy witness Fanelli admitted that the first all-party meeting was scheduled for November 1, 2018, a mere eight days before the original Stipulation was filed on November 9, 2018 (Tr. Vol. I at 34-35; Co. Ex. 2 at 7). This shortened timeframe, according

to Kroger and OMAEG, did not afford stakeholders sufficient time for review of the proposal that supposedly aimed to resolve four complex cases before they were asked to sign on to the original stipulation. Additionally, OMAEG and Kroger contend that the depth and complexity of these matters made it infeasible to conduct settlement negotiations amounting to "serious bargaining" in merely a week, a frustrating endeavor furthered by the fact that parties were unable to benefit from discovery responses while reviewing the contents of the proposal. As such, OMAEG, Environmental Advocates, and Kroger argue that the rushed process utilized in these proceedings violates the Supreme Court of Ohio's longstanding precedent regarding the exclusion of parties with significant interests from settlement negotiations regarding Commission proceedings. *See Time Warner AxS v. Pub. Util. Comm.*, 75 Ohio St.3d 229, 233, 661 N.E.2d 1097 (1996).

{¶ 55} Environmental Advocates further allege that, while FirstEnergy witness Fanelli testified that serious bargaining did, in fact, take place in these proceedings, there is no evidence presented to demonstrate that was the case, noting a complete omission of testimony addressing whether FirstEnergy considered intervening parties' input regarding the content of Grid Mod I after reaching a preliminary agreement with Staff (Co. Ex. 2 at 7; Co. Ex. 4 at 3-4).[7] Given the fact that the supplemental stipulation did not alter the substantive grid modernization investments and new signatories OCC and NOPEC refused to take a position on the merits of the benefits resulting from those investments, Environmental Advocates maintain that the input was essentially ignored (Tr. Vol. II at 317, 320; OCC Ex. 1 at 6; Co. Ex. 3 at 8). OMAEG and Kroger add that the crux of the issue is that no settlement discussions occurred with all parties before these proceedings were consolidated on October 30, 2018, even if the underlying proceedings of the settlement began as early as 2016. Environmental Advocates also state that the Supreme Court of Ohio has explained that "[t]he agreement of some parties is no substitute for the many procedural protections reinforced by the evidentiary-support requirement." *In re the Application of*

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[7] ELPC's counsel was allowed an opportunity to make a proffer; however, counsel presented no evidence supporting the proffer at the time of the hearing (Tr. Vol. I at 177-179).

Columbus S. Power Co., Ohio St.3d 46, 2011-Ohio-2383, 950 N.E.2d 164. Accordingly, OMAEG, Environmental Advocates, and Kroger request that the Commission find that the Stipulation fails to satisfy the first criterion.

{¶ 56} As a separate issue, Environmental Advocates note that the standard used for the review of stipulations heavily prejudices intervenors and causes unjust results in the settlement process, demonstrated by OCC witness Willis' testimony indicating that, absent the tax benefits from the settlement, OCC would not have signed the Stipulation (Tr. Vol. II at 320). In order to avoid this type of negotiating in the future, Environmental Advocates suggest that the Commission change its application of the review standard for stipulations, requiring the more rigorous original statutory standard established for a stipulation's respective subject-matter, unless it is unanimous. Environmental Advocates note that this approach is consistent with other jurisdictions would result in more fair and reasonable settlement discussions.

{¶ 57} In their reply briefs, Staff and OEG initially respond to OMAEG, Environmental Advocates, and Kroger by stating that the grid modernization aspects of the Stipulation were initiated with the filing of the Companies' business plan in February of 2016 in the *Grid Mod Case*, adding that the Companies' distribution platform modernization plan was filed December of 2017 in the *DPM Plan Case*. Staff, FirstEnergy, and OEG assert both proceedings provided intervening parties ample opportunity to become familiar with the issues, through discovery and any other available means, which were ultimately addressed in the Stipulation. These parties contend the same can be argued for the tax-related issues, as the Commission's investigation regarding the TCJA was initiated in January of 2018. (Co. Ex. 2 at 5-6; Co. Ex. 4 at 3-4.) In fact, FirstEnergy notes that the Commission has found counsel to be knowledgeable and capable when they previously participated in regulatory proceedings that involved issues that "carry over" into the stipulation. *In re the Application of Ohio Power Co.*, Case No. 16-1852-EL-SSO, et al., Opinion and Order (Apr. 25, 2018) at ¶ 130. According to FirstEnergy, the fact that the original

stipulation was filed eight days after these extensive negotiations commenced merely indicates how effectively and transparently the process was carried out. Secondly, Staff and FirstEnergy note that settlement negotiations did not cease upon the filing of the original stipulation; in fact, due to subsequent negotiations, a supplemental stipulation was filed approximately two months afterward (Co. Ex. 3; Co. Ex. 4 at 3-4). Finally, Staff and FirstEnergy argue that no statute, rule, or Commission decision precludes parties from having preliminary discussions prior to initiating settlement discussions with all parties, adding that no party was excluded from the numerous group meetings where the Stipulation was discussed, adding that concessions and revisions were made as a result of the feedback received from those meetings (Co. Ex. 2 at 7-8; Tr. Vol. I at 38). See also *In re the Commission's Review and Adjustment of the Fuel and Purchased Power and System Reliability Tracker Components of Duke Energy Ohio, Inc. and Related Matters*, Case No. 07-723-EL-UNC, Opinion and Order (Feb. 27, 2008) (where the Commission previously recognized that a utility's willingness to make concessions on issues of importance as evidence of serious bargaining). According to FirstEnergy, there was also a complete lack of record evidence to support arguments against serious bargaining, including a lack of direct testimony on the issue.

{¶ 58} IEU and FirstEnergy also encourage the Commission to reject Environmental Advocates' proposed revision to the three-prong test for review of a contested stipulation, emphasizing that Commission proceedings often involve multiple stipulations being filed as settlement negotiations progress and evolve, demonstrating that the settlement dilemma as alleged by Environmental Advocates does not exist. See, e.g., *ESP IV Case*, (where four stipulations were submitted during the course of the proceeding). FirstEnergy also notes that the Commission has previously rejected this proposal as it would effectively discourage settlements by giving any one party the ability to essentially reject a compromise reached by an otherwise diverse collection of interests. See, e.g., *In re Ohio Power Co.*, Case No. 16-1852-EL-SSO, et al., Second Entry on Rehearing (Aug. 1, 2018) at ¶¶ 59-61. Furthermore, IEU notes that, even in contested settlement cases, the Commission will both apply the

three-prong test and address in great detail the lawfulness and reasonableness of the terms and conditions set out in the stipulations. *ESP IV Case*, Opinion and Order (Mar. 31, 2016) at 46-113. As such, IEU argues that the type of review requested by Environmental Advocates is already occurring. FirstEnergy also states that the Commission has found on numerous occasions that a proposed stipulation has not met the serious bargaining standard, adding that evidence of parties submitting sufficient evidence of serious bargaining for the majority of the thirty plus years this principle has been in place shows the good faith negotiations and compromise that has occurred in proceedings before the Commission. *In re The Cincinnati Gas & Elec. Co.*, Case No. 03-93-EL-ATA, et al., Opinion and Order (Oct. 24, 2007); *In re Ohio Consumers' Counsel v. Pub. Util. Comm.*, 121 Ohio St.3d 362, 2009-Ohio-604, 904 N.E.2d 853 at ¶ 9.

b. Commission Decision

{¶ 59} The Commission finds that the Stipulation appears to be the product of serious bargaining among capable, knowledgeable parties. We note that the Signatory Parties routinely participate in complex Commission proceedings and that counsel for the Signatory Parties have extensive experience practicing before the Commission in utility matters (Co. Ex. 2 at 7-8; Co. Ex. 3 at 10; Co. Ex. 4 at 3-4; OCTA Ex. 1 at 4). The Signatory Parties represent diverse interests including the Companies, a coalition of local governments, competitive suppliers, commercial customers, industrial consumers, an environmental advocate, a trade association for the cable telecommunications industry, hospitals, small businesses, advocates for low and moderate income residential customers, and Staff (Co. Ex. 1 at 31; Co. Ex. 3 at 10).

{¶ 60} Moreover, the Commission finds that claims of a rushed settlement process are not supported by the record. Although the Stipulation was filed in this proceeding on November 9, 2018, the Companies' application in the *Grid Mod Case* was filed on February 29, 2016, and the application in the *DPM Plan Case* was filed on December 1, 2017. Thus, parties had more than adequate time to assess the Companies' applications and prepare for

settlement negotiations. Moreover, while the *TCJA Impacts Case* was not filed until October 30, 2018, the Commission, and interested parties, had the opportunity to fully explore the issues related to the TCJA in the *TCJA Investigation*. *TCJA Investigation,* Finding and Order (Oct. 18, 2018). More importantly, the record is clear that settlement discussions were neither rushed nor static. In fact, after the initial stipulation was filed on November 9, 2018, a supplemental stipulation was filed on January 25, 2019. Accordingly, given that additional parties agreed to the supplemental stipulation and additional substantive modifications were made following the filing of the original stipulation, the Commission finds that there is little evidence of a lack of significant bargaining (Co. Ex. 3; Co. Ex. 4 at 3-4).

{¶ 61} We agree with FirstEnergy and note that we have previously held that a signatory party's decision to opt out of a particular provision or provisions, and simultaneous election not to oppose the provision, merely reflects the signatory party's support of the stipulation as a total package and supports the likelihood that other parties to the case negotiated for certain provisions of the stipulation that were not of particular interest. *In re Ohio Power Co.*, Case No. 14-1693-EL-RDR, et al., Opinion and Order (Nov. 3, 2016). Pursuant to Commission and Supreme Court of Ohio precedent, there is no specific checklist to apply during the negotiation process in order to demonstrate serious bargaining has occurred, provided there is no evidence of the intentional exclusion of an entire class of customers. *Time Warner AxS v. Pub. Util. Comm.*, 75 Ohio St.3d 229, 233, 661 N.E.2d 1097 (1996) (noting that its holding did not create a requirement that all parties participate in all settlement meetings); *In re Ohio Edison Co.*, 146 Ohio St.3d 222, 2016-Ohio-3021, 54 N.E.3d 1218; *ESP III Case*, Opinion and Order (July 18, 2012); *In re Duke Energy Ohio, Inc.*, Case No. 15-534-EL-RDR, Opinion and Order (Oct. 26, 2016); *In re Columbia Gas of Ohio, Inc.*, Case No. 16-2422-GA-ALT, Opinion and Order (Jan. 31, 2018). We decline to impose such requirements in these proceedings. The Stipulation represents a diverse group of parties involved in these proceedings and there is no record evidence that any party or class of customers was excluded from negotiations. Further, our finding is consistent with Commission precedent and our unwillingness to investigate the form and manner of the

settlement discussions. *ESP III Case*, Opinion and Order (July 18, 2012) at 26-27. We will continue to allow parties to decide the form and manner of settlement negotiations, provided parties are able to demonstrate no entire class of customers is excluded from such negotiations. Based on the evidence presented, we find that the Stipulation is the product of serious bargaining among capable, knowledgeable parties.

{¶ 62} We similarly reject Environmental Advocates' specific request that the Commission modify its application of the three-prong test in contested stipulation cases. We find inserting ourselves in the settlement process in the proposed manner would be unnecessarily intrusive and would eventually require signatory parties to demonstrate the degree of serious consideration afforded to alternative language/proposals, an evidentiary standard that could make stipulations impossible to defend. Thus, adopting Environmental Advocates' recommendation would result in a substantial disincentive for parties to engage in settlement negotiations or, at the very least, unreasonably extend the duration of those negotiations. Furthermore, the Commission considers evidence regarding every proposed stipulation by evaluating the contents of the stipulated terms and supporting evidence, as well as alternative evidence produced by opposing parties. See *In re Ohio Edison Co., The Cleveland Elec. Illum. Co., and The Toledo Edison Co.*, Case No. 18-857-EL-UNC, Opinion and Order (Mar. 20, 2019) at ¶ 34. As such, we agree with FirstEnergy that the Commission is already engaging in a thorough review of all aspects of a stipulated agreement and no additional modifications to the three-prong test are necessary at this time.

{¶ 63} Next, we will determine whether the cumulative benefits arising from the Stipulation, as a package, benefit ratepayers and the public interest in our consideration of the second prong of our test for the consideration of stipulations.

2. DOES THE SETTLEMENT, AS A PACKAGE, BENEFIT RATEPAYERS AND THE PUBLIC INTEREST?

{¶ 64} The Signatory Parties also contend that the Stipulation benefits ratepayers and the public interest and, therefore, satisfies the second criterion. Specifically, the

Signatory Parties assert that, as a result of the Stipulation, customers will benefit from total tax savings of approximately $900 million and the Companies will dedicate substantial investment toward modernizing the distribution grid (Co. Ex. 1 at 7-10; Co. Ex. 2 at 2-3, 9; Co. Ex. 3 at 2; Co. Ex. 4 at 2). The Signatory Parties aver that these investments will not only improve system reliability and enable more efficient restoration of service following outages, they will also enhance the Companies' customer experience by allowing the creation of innovative products and services to help customers facilitate and manage their energy use (Co. Ex. 2 at 9-10; Tr. Vol. I at 49, 84, 103). As an additional benefit, Signatory Parties also contend that the Stipulation provides for robust consumer protections, requires rigorous third-party oversight and monitoring, and establishes a collaborative, inclusive process allowing all stakeholders to participate in modernizing the grid (Co. Ex. 2 at 10-11; Co. Ex. 4 at 4-6; Staff Ex. 2 at 4-6; OCC Ex. 1 at 6-7). Many parties also indicate that the Stipulation represents a complex and carefully crafted plan that strikes an appropriate balance between interests, cautioning that modifying the settlement package may alter that balance and make the grid investments uneconomic. As such, they request that the Commission reject proposals for modification in order to preserve the benefits of the Stipulation.

{¶ 65} OMAEG disputes the Signatory Parties' contention that the Stipulation benefits the public interest, as it includes unjust and unreasonable charges, deploys an inadequate rate design, and does not sufficiently protect customers against charges deemed to be unlawful. In order to ensure these issues are resolved, OMAEG recommends several modifications for the Commission's consideration, as illustrated below.

a. TCJA-Related Tax Savings and Issues

{¶ 66} As noted above, FirstEnergy, Direct Energy, OEG, and Staff claim that the Stipulation will result in approximately $900 million associated with the TCJA will be returned to customers (Co. Ex. 1 at 7-9; Co. Ex. 2 at 2-3; Co. Ex. 3 at 2; Co. Ex. 4 at 2; Staff Ex. 1 at 3). While the Companies note that their customers have received nearly $40 million in

annual tax savings since early 2018 due to rider adjustments, the Companies have committed to refund all tax savings associated with the TCJA that are not reflected in riders, as well as the return of all normalized and non-normalized excess ADIT, from January 1, 2018 (Co. Ex. 1 at 7-9; Staff Ex. 1 at 3). In order to effectuate this commitment, FirstEnergy plans to establish a new credit mechanism in Case No. 18-1656-EL-ATA, which will provide customers with a credit on a dollars per kWh basis and will be reconciled annually (Co. Ex. 2 at 4; Co. Ex. 3 at 2, Attach. A, Attach. E). OCTA witness Kravtin explains that these commitments are critical for many reasons with one being Staff's ability to analyze future pole attachment rate calculations and avoiding the perverse impact of increasing those rates through inappropriate excess ADIT values in the calculations. Ms. Kravtin also notes that other current and potential future pole attachment issues will similarly be resolved by the terms of the Stipulation.[8] (OCTA Ex. 1 at 1, 6; Co. Ex. 1 at 25-28; Tr. Vol. I at 25-26.) Staff witness Borer also clarifies that the Companies have agreed to return to customers all tax savings deferred from January 1, 2018, until the tax credit mechanism goes into effect (Staff Ex. 1 at 3). Finally, FirstEnergy avers that no party to these proceedings has provided testimony opposing or challenging any of the TCJA portions of the Stipulation.

{¶ 67} As an added benefit, OPAE and OCC specifically note that the supplemental stipulation also afforded a greater allocation of the rate reduction refund to residential customers. Specifically, OPAE and OCC state the Stipulation now provides that residential customers will receive approximately $125.9 million more of the $808 million rate reduction in refunds related to the excess ADIT. This reduction, according to these parties, represents a just and reasonable credit to residential customers' monthly bills. (OCC Ex. 1 at 5, 7, Attach. B; Co. Ex. 1 at 27.)

{¶ 68} Rather than a benefit, OMAEG and Kroger contend that the rate allocation allowing residential customers to receive a larger portion of the refund related to excess

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8 See *In re Ohio Edison Co., The Cleveland Elec. Illum. Co., and The Toledo Edison Co.*, Case No. 18-563-EL-ATA, et al. (regarding the Companies proposed revised pole attachment rates).

ADIT is a disproportionate allocation benefiting these customers at the expense of commercial and industrial customers (Co. Ex. 3 at 2, Attach. E; OCC Ex. 1 at 5; Tr. Vol. II at 315). While noting that the rate design described in the original stipulation appeared to be reasonable and used consistent rate design principles from prior proceedings, OMAEG and Kroger contend that the only reason justifying the rate design revision was to entice more parties to sign onto the Stipulation, arguing that OCC fails to present any evidence demonstrating this shift in the allocation methodology is just or reasonable under ratemaking principles. OMAEG and Kroger further argue that this practice has already been criticized by the Commission, which indicated this type of settlement tactic is "strongly disfavored" and that it is "highly likely" that these types of provisions would be stricken from stipulation. *In re the Application of Columbus S. Power Co. and Ohio Power Co.*, Case No. 05-376-EL-UNC (*AEP Ohio Construction Case*), Order on Remand (Feb. 11, 2015) at 12. Additionally, Kroger and OMAEG object to classifying the return of tax savings resulting from the TCJA as a benefit attributed to the Stipulation, as the Companies are legally obligated to do so, pursuant to the Commission's directives in the *TCJA Investigation*. *TCJA Investigation*, Finding and Order (Oct. 24, 2018) at ¶ 27.

{¶ 69} In its reply brief, OCC and FirstEnergy counter OMAEG and Kroger's argument against the rate allocation by noting that the only witness to provide testimony regarding the proposed allocation was OCC witness Willis, who supported the Stipulation by indicating the revised rate design results in a just and reasonable credit to residential customers' monthly bills and provides residential customers with a proportionate share of the tax savings (OCC Ex. 1 at 7). FirstEnergy also contends that both allocations represent reasonable approaches to the allocation methodology. Further, OCC and FirstEnergy maintain that OMAEG's argument is undermined by the fact that representatives of industrial and commercial customers (IEU, OHA, OEG, and OHA) are Signatory Parties. Lastly, FirstEnergy takes issue with the characterization of the AEP Ohio Construction Case, explaining that the process with which the Commission took issue in that case, i.e., directing funds to be paid to intervenors who would then, in turn, ultimately distribute funds to

customers, is not the process in these proceedings; rather, FirstEnergy states that a broad group of Signatory Parties representing all customer classes has agreed on the allocation of tax credits among those classes. *AEP Ohio Construction Case*, Order on Remand (Feb. 11, 2015) at 12.

b. Grid Modernization Investment

i. GENERAL ARGUMENTS REGARDING GRID MODERNIZATION BENEFITS

{¶ 70} FirstEnergy, Direct Energy, and Staff also note that the Stipulation provides substantial investment in Grid Mod I that will benefit ratepayers, which is a culmination of extensive discussions between the Companies and other stakeholders over the last three years (Co. Ex. 2 at 6).[9] For purposes of the Stipulation, the Signatory Parties agreed to combine aspects from both of the plans proposed in the *Grid Mod Case* and the *DPM Plan Case*, ultimately suggesting that Grid Mod I will be constructed over a three-year budget period, with the Companies authorized to recover the costs of capital investments in grid modernization of up to $516 million through FirstEnergy's Rider AMI (Co. Ex. 1 at 10-11). The Companies, Direct Energy, and Staff also note that the Stipulation requires the Companies to install 700,000 advanced meters, along with the necessary supporting communications infrastructure, a MDMS, and associated systems and process (Co. Ex. 1 at 14; Staff Ex. 2 at 3, 5). Moreover, FirstEnergy commits to installing DA on at least 200 circuits and IVVC on at least 202 circuits (Co. Ex. 1 at 19; Staff Ex. 2 at 6). With the deployment of DA and IVVC, FirstEnergy and Staff contend that Grid Mod I will improve reliability and enable faster restoration of service following outages for customers, as well as optimize voltage management (Co. Ex. 1 at 19-20; Staff Ex. 2 at 6-7).

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[9] OCC, OPAE, and NOPEC were signatory parties to the Stipulation in respect to all terms and conditions except the terms and conditions of Sections V.B. through V.I. of the original stipulation related to grid modernization. These parties agreed not to oppose these terms and conditions in order to reach a global settlement that provided, among other things, the return of tax benefits of the TCJA to FirstEnergy's customers (Co. Ex. 3 at 10).

{¶ 71} In order to ensure the Companies remain accountable for the promises of improved reliability, the Stipulation also provides that the Companies will file an application to revise their reliability performance standards within six months of a final Commission order approving the Stipulation. Moreover, FirstEnergy and Staff note that the Companies will also file a subsequent application to revise those standards a year after Grid Mod I deployment is completed. (Co. Ex. 1 at 21.) In addition to receiving the benefit of improved system reliability, FirstEnergy and Staff claim that the terms of the Stipulation provide for a credit to customers for the operational savings earned from deploying these AMI investments, such as reduced meter reading expenses and increased distribution revenue from improved meter accuracy. Specifically, the Companies will credit the operational savings against the revenue requirement for Rider AMI during the quarterly update and reconciliation process, which will continue until the Companies' next base rate case. (Staff Ex. 2 at 4, 8; Co. Ex. 1 at 23.) The Companies and Staff also note that the amount of operational savings credits will be fixed[10] and subject to review by a third-party consultant halfway through Grid Mod I (Co. Ex. 3 at 5). According to Staff, the findings of the review will ultimately be subject to Commission approval (Staff Ex. 2 at 4). The Stipulation also establishes fixed amounts of operational savings in the fourth, fifth, and sixth years in the event there is no approved plan for the implementation of Grid Mod II or no adopted recommendation from the third party consultant review by the time the fourth year begins. As a further benefit, FirstEnergy also notes that the Stipulation provides that the Companies allocate another $1 million to residential customers in years four, five, and six as credits in Rider AMI, which will not be subject to cost recovery. (Co. Ex. 3 at 6.) Finally, the Companies state that residential and small commercial customers will receive a credit for all actual salvage or sale net proceeds from retired meters as a result of AMI deployment (Co. Ex. 4 at 4-5; Co. Ex. 3 at 4-5; Co. Ex. 1 at 18-19). Accordingly, FirstEnergy

10 $0.05 million, $.0.90 million, and $3.28 million for the first three years, respectively.

contends that the grid modernization investment as described in the Stipulation affords substantial benefit to ratepayers and the public interest.

{¶ 72} OPAE and OCC indicate that they are not opposing the provisions for the initial grid upgrades in exchange for obtaining improved terms for a future audit of the grid charges and additional consumer protections regarding the grid modernization investments (Co. Ex. 3 at 5-6, 10).

{¶ 73} OMAEG and Kroger contend that the Companies have failed to demonstrate that the grid modernization charges authorized by the Stipulation are not duplicative of those already collected under Rider DMR, as FirstEnergy has offered very similar benefits justifying these charges to those approved for Rider DMR, including improved reliability, providing new options to customers, and reducing the number and length of outages. *ESP IV*, Fifth Entry on Rehearing (Oct. 12, 2016) at ¶ 119. Kroger adds that the Stipulation contains no provision allowing a reconciliation for Rider DMR funds paid by customers for the same or similar grid modernization efforts here or reference or limit the Companies' ability to apply to extend Rider DMR for an additional two years, which they have in fact done. See *In re Ohio Edison Co., The Cleveland Elec. Illum. Co., and The Toledo Edison Co.*, Case No. 19-361-EL-RDR, Application (Feb. 1, 2019).

{¶ 74} STC also suggests that the Commission revise the provision of the Stipulation that limits discussions relating to the development of Grid Mod II to "any interested Signatory Parties" to "any interested party to this proceeding," in order to allow parties other than Signatory Parties to discuss their legitimate interests in the development of Grid Mod II (Co. Ex. 3 at 6).

{¶ 75} FirstEnergy addresses OMAEG and Kroger's concerns by contending that simply because Rider AMI and Rider DMR are both related to grid modernization, does not in itself mean that they will double recover grid modernization costs. The Companies argue that both riders have very different purposes, noting Rider DMR was approved to provide

credit support to the Companies in order to provide them more favorable access to the capital markets when seeking financing for grid modernization investments. *ESP IV Case*, Fifth Entry on Rehearing (Oct. 12, 2016) at 90-91. On the other hand, FirstEnergy states that Rider AMI was approved by the Commission as the mechanism to recover all costs associated with grid modernization investments, including a return of and on these investments. *ESP IV Case*, Opinion and Order (Mar. 31, 2016) at 22-23. Additionally, FirstEnergy disagrees with STC's interpretation of the provision related to Grid Mod II discussions and, instead, claims that this provision is merely in place as a commitment for the Companies and Staff to initiate discussions with other Signatory Parties by June 1, 2020, noting that this does not, in any way, prevent the Companies or Staff from discussing Grid Mod II with any other interested party either before or after that date (Co. Ex. 1 at 24). The Companies also maintain that interested parties may also have additional opportunities to discuss Grid Mod II during the independent Commission audit prior to the commencement of Grid Mod II, the midterm review of Grid Mod I, and meetings of the newly created Collaborative Group (Co. Ex. 3 at 5-6; Co. Ex. 1 at 14).

ii. RIDER AMI TARIFF LANGUAGE

{¶ 76} OMAEG and Kroger recommend that the Commission modify the settlement to ensure that the refund language utilized in the Rider AMI tariff adequately and fully protects customers, specifically noting that the current tariff language shifts additional risk to customers in the event that a Commission audit or the Supreme Court of Ohio determined that charges collected under Rider AMI were imprudent, unreasonable, or unlawful (Co. Ex. 1 at 10-14; Co. Ex. 3 at 3-4). The tariff language currently provides that Rider AMI will be "subject to reconciliation including, but not limited to, increases or refunds. Such reconciliation shall be based solely upon the results of audits ordered by the Commission" in accordance with the Opinion and Orders issued in *ESP III* and *ESP IV*, as well as any Commission orders issued in the *TCJA Investigation* or the above captioned proceedings (Co. Ex. 3 at 3-4). OMAEG and Kroger state that the language can be improved upon by first explicitly providing that refunds can result from orders of the Supreme Court

of Ohio, consistent with tariff language approved for other Ohio utilities. See, e.g., Vectren Energy Delivery of Ohio, Inc. Tariffs, P.U.C.O. No. 3, Sheet No. 39, Tenth Revised Page 1 of 1, Uncollectible Expense Rider (effective Aug. 9, 2018); Columbia Gas of Ohio, Inc. Tariffs, P.U.C.O. No. 2, Seventh Revised Sheet No. 30c, Infrastructure Development Rider (effective with meter readings on or after Oct. 17, 2018); Ohio Gas Company Tariffs, P.U.C.O. No. 2, First Revised sheet No. 13, Page 1 of 1, Uncollectible Expense Rider (effective Aug. 1, 2018).

{¶ 77} OMAEG and Kroger also take issue with the word "solely" in the proposed tariff language, claiming that its inclusion is unjust and unreasonable and inconsistent with other utilities' tariff language. OMAEG and Kroger argue the use of the word "solely" and the enumeration of the specific cases that can result in a refund limit, if not eliminate, the Commission's ability to issue refunds in dockets other than those listed. *Keco Indus. V. Cincinnati & Suburban Bell Telephone Co.*, 166 Ohio St. 254, 141 N.E.2d 465 (1957). As such, OMAEG and Kroger would also recommend more general language that the rider be subject to reconciliation based on the results of audits as ordered by the Commission, which OMAEG and Kroger aver is more consistent with other utilities' tariff language and will provide customers more protection and certainty as to the refund language regardless of the case in which the refund is ordered (Tr. Vol. I at 123-130). See, e.g., The Dayton Power & Light Company Tariffs, P.U.C.O. No. 17, Fifth Revised Sheet No. D37, Distribution Modernization Rider, Page 2 of 2 (effective Nov. 1, 2018).

{¶ 78} Staff notes that OMAEG and Kroger's concerns are misplaced, given the various safeguards included in the Stipulation aimed to protect consumers during the implementation of Grid Mod I, as discussed more thoroughly below (Co. Ex. 1 at 22). FirstEnergy agrees with Staff, further noting that the Commission has approved similar reconciliatory language for Rider AMI previously, with the exception of including the specific case numbers for these proceedings. *In re Ohio Edison Co., The Cleveland Elec. Illum. Co., and The Toledo Edison Co.*, Case No. 17-2276-EL-RDR, Finding and Order (Mar. 28, 2018) at ¶¶ 8-9, 11, 14. Furthermore, the Companies note that no additional revisions are

necessary since audit procedures for Rider AMI are exclusively listed in the case numbers included in the tariff language. Even in the event an audit occurred under a separate case number, consistent with typical Commission practice, FirstEnergy states that a reconciliation could still be ordered by the Commission, provided that the audit in that case is performed in accordance with the Commission's orders in the listed proceedings. (Tr. Vol. I at 125-126, 128-129.) Thus, both Staff and FirstEnergy maintain the tariff language is reasonable and should be approved.

iii. INCLUSION OF SMART THERMOSTAT INVESTMENT

{¶ 79} STC argues that the Stipulation fails to ensure the maximized benefit from the contemplated AMI investments. STC witness Dzubay claims that the Stipulation contains no specific plan for deploying enabling technologies so that customers will have the tools to fully realize the benefits from the enhanced information that advanced meters will provide, further noting that enabling technologies that require manual responses to usage information, such as accessing web portals, has historically been held relatively ineffective in producing savings for customers even when paired with time-varying rates. (STC Ex. 4 at 4, 6-7, 12-13.) Instead, Ms. Dzubay claims that maximized energy savings occur when thermostats can be controlled by the utility and are enabled to continually adjust to a customer's schedule and temperature preferences automatically and exhibit learning or occupancy detection capability (STC Ex. 4 at 7; Tr. Vol. II at 289; Roadmap at 30). In fact, Ms. Dzubay alleges that the Companies have acknowledged the benefits of smart thermostats, noting that FirstEnergy's *EnergySaveOhio* website at the time of the evidentiary hearing included a statement that a smart thermostat could provide savings of $131 to $145 per year to a customer, without any additional assistance from AMI or time-varying rates (STC Ex. 1 at 1; Tr. Vol. I at 89-90). While smart thermostats can provide an array of benefits for consumers, Ms. Dzubay explains in her testimony that their most important feature for purposes of this case is their ability to maximize the benefits of time-varying rates for customers and the grid, shifting the shape of customers' loads, reducing their energy bills and, consequently, potentially producing significant peak demand reductions. (STC Ex. 4

at 8, 14-15.) Moreover, STC asserts that smart-thermostats, a type of non-wire alternative (NWA), is exactly the type of NWA the Commission considered to defer or avoid more expensive distribution system investments during its initiative (Roadmap at 24). If the goal of these proceedings is to maximize customer benefits, STC asserts that smart thermostats should be considered as a necessary component; otherwise, the Stipulation will not achieve the contemplated benefits.

{¶ 80} Apart from displaying doubt that the Stipulation will produce the alleged grid modernization benefits described above, STC argues that the provision contained in the supplemental stipulation that would prohibit Grid Mod I funding for "distributed energy resources (DER) services located on the customer side of the meter," i.e., smart thermostats, is contrary to the public interest, as well as the Roadmap, and should be rejected by the Commission (Co. Ex. 3 at 3; Roadmap at 31). Furthermore, STC claims that the supplemental stipulation's prohibition against DER on the customer side of the meter is also inconsistent with the performance metrics, identified in Attachment C to the Stipulation (Co. Ex. 1 at 22). Specifically, STC argues that the prohibitive language would essentially eliminate the "Enabling Technologies" metric, which will be employed to determine the cost effectiveness of "(r)ebates or incentives for enabling technologies, e.g. smart thermostats; number of devices provided to each customer class; broken out by technology" (Co. Ex. 1 at Attach. C). While acknowledging that STC's members may financially benefit if smart thermostats were funded through Grid Mod I, STC asserts that such a program would ultimately maximize benefits to the Companies' customers and the grid, consistent with the objectives of the Commission's grid modernization initiative (STC Ex. 4 at 15; Roadmap at 22, 24, 27).

{¶ 81} Therefore, in order to maximize these benefits and achieve the Commission's objectives, STC witness Dzubay recommends to offer smart thermostat incentives, namely a $100 instant rebate, to customers with Central AC and Wi-Fi that do not currently own a smart thermostat simultaneously when rolling out smart meters. Ms. Dzubay contends that,

for smart meter deployment to be cost-effective, "it must be coupled with an appropriate time-varying rate and a definitive plan for incenting customers to take advantage of enabling technologies." (STC Ex. 4 at 8-9, 17-18.) Ms. Dzubay also notes that a significant customer education effort would need to be orchestrated, further supporting implementation of the smart thermostat program in tandem with the smart meter rollout (STC Ex. 4 at 17). Further, Ms. Dzubay recommends a program aimed at 210,000 of the 700,000 customers targeted for smart meters, explaining that, based on her experience, this would be an achievable program size and would result in an estimated total program cost of $30 million over the three-year term of Grid Mod I (STC Ex. 4 at 3-4, 17-19; Tr. Vol. II at 293, 299-300). ELPC witness Curt Volkmann also suggests that Grid Mod I include investments in the deployment of smart thermostats in conjunction with the AMI deployment (ELPC Ex. 32 at 23).

{¶ 82} Not only do Environmental Advocates agree that a smart thermostat program should be included in Grid Mod I to maximize the benefits from AMI, as asserted by Ms. Dzubay, they also assert that FirstEnergy's cost-benefit analysis and Staff's testimony show that enabling technologies, like smart thermostats, are necessary to provide customers with savings from AMI. In fact, according to Environmental Advocates, the projected benefits of Grid Mod I related to AMI are based on a study that affirmatively paired smart meters with both time-varying rates and enabling technologies, such as smart thermostats. (ELPC Ex. 17.) Environmental Advocates and STC urge the Commission to adopt the proposal to incorporate funding for smart thermostats in Grid Mod I, as there is no evidence in the record to demonstrate that a competitive market will emerge on its own following AMI deployment (STC Ex. 4 at 10).

{¶ 83} OEG, Direct Energy, and FirstEnergy respond to the criticism of STC by noting that STC's recommendation to include funding for smart thermostats in Grid Mod I would cost FirstEnergy's customers $30 million over three years, a request OEG, Direct Energy, and the Companies argue is largely self-serving to improve the market share of the

two entities comprising STC – Google, LLC and ecobee (STC Ex. 4 at 1, 16, 19; STC Ex. 4A at 1, 16, 19; Tr. Vol. II at 293). FirstEnergy contends that Ms. Dzubay's doubt that Grid Mod I will not accomplish any of the Commission's objectives because it does not provide for a program giving customers rebates to purchase smart thermostats is baseless and lacks any evidentiary support, furthered by the fact that she acknowledged she has no experience working on aspects of grid modernization or implementing a program similar to one she recommends in these proceedings (STC Ex. 4 at 3-20; Tr. Vol. II at 281-282, 289-290, 297-298). FirstEnergy questions whether a $30 million program is justified when the only benefit related to grid modernization from such a program is that smart thermostats can be programmed to pre-cool a home before peak pricing begins, assuming AMI is deployed and the customer has subscribed to time-varying rates (STC Ex. 4 at 14-15; Tr. Vol. II at 283-284). Finally, FirstEnergy, IEU, and Staff assert smart thermostats do not require grid modernization in order to provide any of their benefits to customers and, as such, should continue to be addressed through other proceedings, such as the energy efficiency and portfolio plan proceedings of electric utilities (Tr. Vol. I at 207, 211; Tr. Vol. II at 247, 285, 288). See also *In re Dayton Power and Light Co.*, Case No. 17-1398-EL-POR, Opinion and Order (Dec. 20, 2017); *In re Ohio Power Co.*, Case No. 16-574-EL-POR, Opinion and Order (Jan. 18. 2017); *In re Ohio Edison Co., The Cleveland Elec. Illum. Co., and The Toledo Edison Co.*, Case No. 16-743-EL-POR (*FirstEnergy POR Case*), Opinion and Order (Nov. 21, 2017). Similarly, IEU and FirstEnergy assert that approving additional funding for smart thermostat rebates in addition to the approved EE/PDR spending would effectively increase customers' rates in violation of the cap imposed by the Commission, limiting EE/PDR program costs to four percent of the Companies' 2015 total sales to ultimate customers as reported on FERC Form 1. *FirstEnergy POR Case*, Opinion and Order (Nov. 21, 2017) at 23. Staff also notes that customers may obtain smart thermostats through other means and that adding a costly program such as the one recommended by Ms. Dzubay may inflate the costs of the Stipulation, potentially rendering it uneconomic.

{¶ 84} Direct Energy also takes issue with Mr. Volkmann's suggestion for a smart thermostat program, noting that Mr. Volkmann did not perform an analysis to determine whether his recommendation would result in a net benefit increase or how the inclusion of such language in the Stipulation would be received by the Signatory Parties (i.e., whether Signatory Parties would withdraw from the Stipulation given its inclusion), potentially jeopardizing the commitment to pass along considerable tax savings to customers (Tr. Vol. II at 248). Moreover, Direct Energy questions whether the Commission is authorized to require the Companies to implement the type of smart thermostat program suggested, noting that state policy requires the retail electric market to be protected from anticompetitive subsidies for competitive services (Tr. Vol. II at 261, 297-298; ELPC Ex. 32 at 23; STC Ex. 4 at 16). R.C. 4928.02(H). Additionally, Direct Energy also alleges that Mr. Volkmann failed to consider any of the ways in which customers may obtain smart thermostats, or how many customers have elected to do so already (Tr. Vol. II at 259-260). Most importantly, Direct Energy contends that no evidence has been presented on whether it is necessary for a wide-scale deployment of smart thermostats in conjunction with the deployment of smart meters for customers to realize the benefits of Grid Mod I. In fact, FirstEnergy argues that the Companies used the CEI pilot results, which did not include smart thermostats, "as part of the basis for [their] estimates but they were used to inform our best judgment on what [they] think a reasonable estimate would be for these particular benefits," demonstrating that the estimated benefits included in the cost-benefit analysis appropriately reflect the terms and conditions of Grid Mod I as set forth in the Stipulation (Tr. Vol. I at 45-46). Further, the Companies indicate that the limiting language prohibiting the use of the $516 million capital investment for DER on the customer side of the meter merely signifies that investment is fully committed to the projects described in the Stipulation, including AMI, DA, IVVC, and ADMS (Co. Ex. 1 at 10; Co. Ex. 3 at 7). While conceding that the grid modernization initiative indicated the Commission could consider some application of behind-the-meter enabling technologies for residential customers, Direct Energy argues that Environmental Advocates fail to address the Commission's

specific limitations for such a program, including that the proposal be submitted by an EDU and the program be deemed essential, which Direct Energy notes neither is the case here (Roadmap at 23-24). IEU adds that the initiative contemplated privately funded investment in smart thermostats, harnessing the benefits of a competitive marketplace, rather than economic regulation and recovery (Roadmap at 23). The Companies also note that the performance metric related to enabling technologies is intended to "measure the status of deployment and related impacts from grid modernization investments," meaning that the metric will track the impact of Grid Mod I on enabling technologies, including impacts from time-varying rates offered by the Companies or competitive suppliers, consistent with the initiative (Co. Ex. 1 at 22, Attach. C; Tr. Vol. I at 110-112; Roadmap at 23).

{¶ 85} STC responds by noting that Ms. Dzubay does hold the requisite experience in forming and improving a smart thermostat rebate program of the type she recommends in this case and that she had conducted a cost-benefit analysis subsequent to receiving a copy of the Companies' cost-benefit analysis on January 30, 2019, in which she determined that her recommended program was net beneficial (STC Ex. 4 at 2, 18; Tr. Vol. II at 282, 289-290, 300). Further, STC and Environmental Advocates both point out that neither Staff witness Schaefer nor the Companies know the actual level of smart thermostat penetration in the Companies' service territories (ELPC Ex. 8; Tr. Vol. I at 96-98, 211-213). Regardless if smart thermostat rebates were included as part of a utility's portfolio plan, Environmental Advocates and STC further allege that the Roadmap specifically mentions that a proposed grid modernization plan "may include a rebate program for enabling technologies (e.g., smart thermostats)." (Roadmap at 31). Indeed, these parties believe that the estimated benefits will only be possible with the inclusion of enabling technologies, further noting that no evidence has been presented regarding the implementation or results of the Companies' smart thermostat program as part of the portfolio plan (Tr. Vol. I at 97-98). While acknowledging that smart thermostats provide savings to customers even in the absence of time-varying rates, STC contends that it is the capability of smart thermostats via their time-of-use optimization feature, eliminating affirmative action on behalf of the customer, that

sets smart thermostats apart and above other enabling technologies (STC Ex. 4 at 14, 19-20; Tr. Vol. II at 289). STC and Environmental Advocates also contest Direct Energy's criticisms of Ms. Dzubay's testimony, arguing there is no record evidence to support that its claim regarding the current availability of smart thermostat rebate programs provided by CRES providers or the level of participation in those programs, noting only IGS presented testimony on this front, stating that it currently utilizes a $30 rebate under the Companies' energy efficiency program (Tr. Vol. I at 190-191; Tr. Vol. II at 298). STC and Environmental Advocates also reiterate the arguments presented by OMAEG, indicating that tax savings from the TCJA should be passed along to customers, regardless if the Stipulation is approved or if the Commission determines it needs additional time to consider the Grid Mod I proposal, noting that the Commission is still required to "determine what is just and reasonable from the evidence presented at the hearing." *Duff v. Pub. Util. Comm.*, 56 Ohio St.2d 367, 379 (1978). Finally, STC asserts that Ms. Dzubay's recommended program would allow for all ENERGY STAR-certified smart thermostats to be eligible for the rebate and that the program would help maximize the benefits of AMI.

c. Innovative Products and Services to Enhance Customer's Access and Experience with the Retail Electric Market

{¶ 86} FirstEnergy, IGS, and Staff further allege that the Stipulation contains numerous provisions that will enhance the retail electric market by providing customers access to innovative products and services, consistent with the Commission's grid modernization initiative and state policy. R.C. 4928.02. Specifically, FirstEnergy and IGS argue that, by allowing CRES providers to offer these products and services, customers will be incentivized to more efficiently manage their energy usage (IGS Ex. 1 at 3-7). As an additional benefit, FirstEnergy, IGS, and Staff acknowledge that CRES providers will be able to utilize actual energy usage information, allowing for more efficient and accurate calculations of wholesale market resettlements and providing residential customers an actual financial incentive for adjusting their behavior (IGS Ex. 1 at 3-6; Co. Ex. 1 at 15-16; Staff Ex. 2 at 5; Tr. Vol. I at 188, 204, 214-215).

{¶ 87} The Companies and Staff note that, as part of the AMI deployment in Grid Mod I, the Companies will implement an MDMS, which enables VEE of meter data for billing purposes, and which also utilizes necessary and generally accepted standards to implement a HAN, which is a network within a customer's residence that connects multiple smart devices for purposes of communication and data exchange (Co. Ex. 1 at 14; IGS Ex. 1 at 8; Staff Ex. 2 at 5). According to FirstEnergy, IGS, and Staff, these aspects of Grid Mod I, in addition to providing access to energy usage data through a web portal, will allow customers to monitor and adjust their usage to lower their electric bills (IGS Ex. 1 at 7-8; Staff Ex. 2 at 5; Co. Ex. 1 at 16; Tr. Vol. I at 79). Not only will the web portal allow automatic access of customer interval data, but FirstEnergy adds that the Companies will not charge any fees to customers or suppliers for individual access to or requests for any of this data provided via EDI, customer portal, or supplier portal (Co. Ex. 1 at 16; Co. Ex. 3 at 4; IGS Ex. 1 at 6; Staff Ex. 2 at 5). Notably, FirstEnergy and Staff contend that promoting such a market-friendly environment will ultimately lead to the creation of innovative products and services, as envisioned in the Commission's initiative (Tr. Vol. I at 49, 103; Roadmap at 9; Staff Ex. 2 at 5).[11] The Companies also note that they are committed to developing a process for CRES providers to provide customer consent for data access and, while working with the Collaborative Group, will identify ways to make the customer authorization process easy for customers (Co. Ex. 1 at 14, 16-17). According to FirstEnergy, IGS, and Staff, the Companies will also work with those included in the collaborative to propose a time-varying rate designed to achieve the energy and capacity savings detailed in the cost-benefit analysis, which will remain until sufficient competitive retail offerings exist (Staff Ex. 2 at 5-6; Co. Ex. 1 at 17-18). Thus, FirstEnergy, Staff, and IGS contend that the proposed improvements to the wholesale market settlements and data access enhancements will provide customers the benefit of analyzing and adjusting their energy usage to correspond with their individual needs.

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11 The attorney examiners took administrative notice of the Roadmap (Tr. Vol. 1 at 85).

{¶ 88} STC argues that the Companies should not be permitted to withdraw their time-varying rate offering under any circumstances, as removing this rate offering would eliminate the cost-savings benefit of time-varying rates for non-shoppers, as well as for shoppers that are returned to SSO service upon the expiration of their existing supplier contracts. FirstEnergy witness Fanelli explained that this provision was to provide time-varying rates for SSO customers, ensuring educational opportunities to promote customer participation, and monitoring and reporting on the success of such offerings (Roadmap at 30-31). Additionally, STC notes that, although it does not oppose CRES suppliers offering time-varying rates to shopping customers, their prices are not subject to Commission regulation. As such, if the Companies withdraw their time-varying rate offerings, there will be no regulated price-to-compare for customers to use as a benchmark when determining whether to accept a CRES supplier's alternative offering. STC also raises concerns with the stipulated conditions that must be in place before the Companies can request to withdraw their time-varying rates. Given the many different types of time-varying rates, STC argues that simply requiring, at a minimum, three suppliers to offer such products may realistically be achieved by three CRES suppliers each offering a different time-varying product that is not in direct competition with the other two time-varying products offered or that have not been subscribed to by any customers. STC similarly argues that the alternative condition, requiring three different types of time-varying products, could potentially be satisfied by one CRES supplier offering three different products, noting that a sole supplier cannot establish a competitive market. STC further claims that the Stipulation fails to address the practical means and consequences of withdrawing the Companies' time-varying rates, while also remaining silent on the issue of working with the Collaborative Group to determine whether sufficient competitive alternatives have been established, contrary to the testimony of Mr. Fanelli (Co. Ex. 1 at 18; Tr. Vol. I at 107-108). As such, in the event the Companies are permitted to later request withdrawal of the time-varying rate, STC requests that the Commission revise the conditions permitting withdrawal to provide more meaningful criteria for determining whether a robust competitive market for time-varying

rates exists, which, at a minimum, would include language requiring the Companies to consult with the Grid Mod Collaborative before applying to withdraw their offering.

{¶ 89} In its reply brief, FirstEnergy emphasizes that the Companies' time-varying rate offering is meant to act as an interim measure until such time the competitive marketplace successfully develops its own products (Tr. Vol. I at 105-106; Co. Ex. 1 at 17-18). FirstEnergy adds that this approach is consistent with the grid modernization initiative, as it limits the Companies' participation in the market in order to advance a specific policy objective (Roadmap at 23-24). Further, IGS and FirstEnergy argue that STC's concerns regarding the withdrawal of the Companies' time-varying rates are premature. They point out that the eventual transition will result from a collaborative process and will require additional Commission approval, in addition to affording interested parties an opportunity to comment on the application once it is filed (Co. Ex. 1 at 14, 17-18).

{¶ 90} If the Commission finds it appropriate to modify the Stipulation to include funding for smart thermostat rebates, IGS recommends that the Commission require the rebates be available on a non-discriminatory basis. Specifically, IGS notes that CRES suppliers should not be precluded from bundling a smart thermostat with other energy management products and services (Tr. Vol. I at 190; STC Ex. 4 at 17).

d. Third-Party Oversight and Monitoring of Investment

{¶ 91} In addition to the extensive grid modernization improvements described in the Stipulation, FirstEnergy, OEG, OCC, and OPAE also argue that the Stipulation includes robust consumer protections and rigorous third-party oversight of the Companies' investments in and deployment of Grid Mod I assets (OCC Ex. 1 at 6-7). Initially, FirstEnergy and Direct Energy note that the Stipulation provides a mutually-agreeable set of performance metrics by which the Companies will routinely monitor, measure, and report to Staff the status of the deployment and other related benefits from the grid modernization projects as part of the Rider AMI quarterly update process (Co. Ex. 1 at 22, Attach. C; Co. Ex. 3 at 8). The Companies also state that Rider AMI will continue to be

subject to rigorous annual audits,[12] which will include on-site inspections of Grid Mod I assets and verification of related expenses, as well as confirmation that the investments are used and useful and prudently incurred (Co. Ex. 1 at 12-14; Co. Ex. 3 at 3). In the event the Companies are unable to resolve objections within 150 days of the filing of the application, FirstEnergy affirms that an expedited hearing process will be established to allow the parties to present evidence regarding the application's conformance with the Stipulation (Co. Ex. 3 at 3). Moreover, FirstEnergy, Direct Energy, and OCC state Staff, or a third-party consultant chosen by Staff, will be engaged to perform an operational benefits assessment and review of Grid Mod I halfway through the three-year deployment period, which may include an independent cost-benefit analysis of Grid Mod I and will need to be completed prior to the implementation of Grid Mod II (Co. Ex. 3 at 5; OCC Ex. 1 at 6-7).[13]

{¶ 92} As noted above, the Stipulation, among other things, proposes a ceiling of $516 million on the amount of capital costs the Companies may recover from customers. FirstEnergy claims an additional benefit afforded to customers is the fact that, of the $516 million, the Stipulation imposes a ceiling of $66 million on the capital investments in other related Grid Mod I investments, including up to $16 million for AMI-related expenditures and up to $50 million in distribution platform modernization work as outlined in the Companies' application in the *DPM Plan Case* (Co. Ex. 3 at 7). According to FirstEnergy, there is a similar cap on the recovery of incremental O&M costs associated with Grid Mod I to an aggregate $139 million for the first three years of deployment (Co. Ex. 1 at 11-12). Not only does the Stipulation provide for these cost recovery limits, FirstEnergy also notes that the Stipulation caps the Companies' return on equity when calculating the revenue

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12 The audit process was approved by the Commission in the *ESP III Case* and continued in the *ESP IV Case* (Co. Ex. 1 at 12-13).

13 The Stipulation provides that until an independent Commission audit of Grid Mod I is completed, the Companies may not commence Grid Mod II, unless the Commission expressly authorizes the Companies to do so subject to the results of the independent audit (Co. Ex. 3 at 5-6).

requirement for Grid Mod I investments recovered under Rider AMI at 10.38% during the three-year Grid Mod I deployment period (Co. Ex. 3 at 3).

{¶ 93} Finally, FirstEnergy, Direct Energy, and OCC emphasize that the Stipulation creates the Collaborative Group to facilitate stakeholder input associated with Grid Mod I deployment, namely recommendations regarding data access systems and processes, technical eligibility requirements for the devices that will connect to the HAN, and the maximization of actual sale/salvage net proceeds for retired or replaced meters (Co. Ex. 1 at 14-15; Co. Ex. 3 at 4-5; OCC Ex. 1 at 6-7; Staff Ex. 2 at 5). Without limiting participation to other interested stakeholders, FirstEnergy notes that OCC and NOPEC will participate in this process, ensuring that the views of residential customers and municipal governments across northeast Ohio will be represented (Tr. Vol. I at 118-119; Co. Ex. 3 at 4). As such, the Companies assert that the Stipulation provides vital protections to ensure transparency, collaboration, oversight, and accountability throughout the Grid Mod I deployment process.

{¶ 94} OPAE and OCC agree these various protections are necessary to ensure consumers are receiving the benefits of grid modernization efforts and the resulting charges are just and reasonable. Furthermore, these parties note that the Stipulation is consistent with the Commission's policies so that customers obtain benefits of grid modernization efforts commensurate with the associated costs. (OCC Ex. 1 at 6, 8-9.)

{¶ 95} STC notes that the explicit inclusion of OCC and NOPEC as members of the Collaborative Group indicates that party status alone may not be sufficient to guarantee a right to participate in the Collaborative Group (Co. Ex. 3 at 4). In fact, STC maintains that FirstEnergy witness Fanelli would not commit to including STC as a participant in the Collaborative Group or identify the criteria that would be applied to determine eligibility for participation (Tr. Vol. I at 119-120). Thus, STC requests that the Commission direct the Companies to permit STC to participate in the Collaborative Group and to provide STC notice of its meetings. OMAEG also disagrees that the Stipulation provides adequate

protections for the Companies' customers, emphasizing its earlier arguments regarding the refund language contained in the tariff for Rider AMI.

{¶ 96} In response to STC's request to be explicitly included in the Collaborative Group, FirstEnergy explains that the Stipulation allows any stakeholder to participate and that the reference to OCC and NOPEC is "without limitation on the participation of other stakeholders "(Co. Ex. 1 at 14; Co. Ex. 3 at 4).

e. Cost-Benefit Analysis

{¶ 97} The Companies further argue that the Stipulation provides substantial benefits to customers and the public interest as demonstrated by a positive $1.98 billion (nominal), $234 million (NPV), resulting from the Companies' cost-benefit analysis for a 20-year period. According to the Companies, the cost-benefit analysis incorporated all of the quantitative benefits and costs associated with Grid Mod I, including the estimated capital and incremental O&M costs, offset by operational savings, tax savings, and other estimated benefits associated with the Grid Mod I investments. (Co. Ex. 1 at Attach. B; Co. Ex. 2 at 10.) Furthermore, FirstEnergy states that Staff reviewed and generally agreed with the assumptions used in the cost-benefit analysis, adding that the underlying calculations were provided to parties in discovery and that Environmental Advocates' witness Curt Volkmann received them in mid-November (Tr. Vol. I at 202; Tr. Vol. II at 252-253).

{¶ 98} Generally, Environmental Advocates explain the importance of the Commission ensuring the credibility of the purported benefits of Grid Mod I before it approves the Stipulation, as the oversight mechanisms do not currently allow the Commission to reduce FirstEnergy's cost recovery for Grid Mod I even if the investments do not prove to be cost-effective or the benefits never materialize (Co. Ex. 3 at 3-5; Tr. Vol. I at 75-76). Environmental Advocates further argue there are several fallacies in the cost-benefit analysis and request that the Commission "delay approval of the Stipulation until questions are answered and Staff and stakeholders fully understand" the Grid Mod I cost-benefit analysis (ELPC Ex. 32 at 3-4). Environmental Advocates witness Volkmann's main

criticism of the cost-benefit analysis for Grid Mod I is that the level of projected DA benefits, nearly 70 percent or $1.235 million (20-year nominal), is not credible because it is based on unreasonable assumptions by FirstEnergy as to reliability improvements from DA (ELPC Ex. 32 at 7-8). After conducting his own analysis, Mr. Volkmann concluded that a more reasonable estimate of the benefits attributed to DA would be $389 million (20-year nominal), which would also consequently hold that Grid Mod I is not cost-effective on a NPV basis, with $418 million in benefits compared to $574 million of costs, even assuming all projected operational savings benefits materialize (ELPC Ex. 32 at 18-19).[14] According to Mr. Volkmann, FirstEnergy utilized historical outage data from 34 circuits in the Cleveland area where the Companies deployed DA as part of a grid modernization initiative beginning in 2012, comparing the 2005-2009 five-year average reliability indexes with the June 2014-May 2018 four-year average reliability indexes, both during major storms/events and excluding major storms/events, in order to calculate the expected improvement of reliability indexes resulting from DA deployment. Mr. Volkmann notes, due to the significant reliability improvements that FirstEnergy projects during major storms/events, the majority of the estimated $1.235 billion (20-year nominal) benefits from DA, $803 million (20-year nominal), is attributed to expected reliability improvements during major storms/events, while only a third of the projected DA benefits, or $432 million (20-year nominal), are expected from reliability improvements excluding major storms/events. (ELPC Ex. 32 at 8-11.) Given his vast experience in both reliability indices and evaluating utility grid modernization plans, Mr. Volkmann concludes that this significant expected improvement in reliability during major storms/events is not credible, as there is widespread damage with multiple circuits impacted, impairing the ability of DA to successfully transfer customers, restore service, and improve reliability (ELPC Ex. 32 at 9). Moreover, Mr. Volkmann asserts that the typical utility practice in grid modernization

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[14] Although Mr. Volkmann's analysis assumes that all expected operational savings will be realized, Environmental Advocates contend that the Stipulation commits FirstEnergy to providing operational savings credits of only $33.31 million over six years, meaning that customers could instead be required to pay up to $825 million (20-year nominal) for Grid Mod I (Co. Ex. 1 at 23, Attach. D; Co. Ex. 3 at 6).

business case and reliability analyses is to exclude major storms/events from reliability metrics (Tr. Vol. II at 266). Even more concerning to Environmental Advocates is the fact that nothing in the Stipulation or the Commission's rules require FirstEnergy to actually achieve those promised benefits (ELPC Ex. 32 at 24). At the very least, Environmental Advocates urge the Commission to impose penalties on FirstEnergy if it falls materially short of achieving those projected benefits (ELPC Ex. 32 at 24-25).

{¶ 99} More specifically, Environmental Advocates claim that the data and assumptions underlying FirstEnergy's expectations regarding reliability improvements from DA are flawed for several reasons. First, Environmental Advocates note that the Companies included duplicated records regarding certain outage events, which, if removed from the analysis, would result in a particularly significant reduction in the reliability metrics, noting that FirstEnergy never offered testimony rebutting the errors (ELPC Ex. 32 at 11-13). Further, Environmental Advocates also point to Mr. Volkmann's testimony, in which he explains that the cost-benefit analysis also included significant outlier data that did not utilize comparable levels of major storms/events to analyze the improvement following DA deployment. The skewed data, which Mr. Volkmann avers includes much more severe weather for the period prior to DA employment than the milder weather experienced after deployment, is an unreasonable basis to ascertain the actual reliability improvements harnessed by DA. In order to accurately determine that DA deployment resulted in subsequent reliability improvements, Mr. Volkmann contends that these outlier data points for both abnormally severe and mild weather must be removed and the data controlled for volatile changes in weather patterns, consistent with industry practice with similar studies comparing reliability metrics. (ELPC Ex. 32 at 9, 13-15; Tr. Vol. II at 266.) Otherwise, Environmental Advocates claim that the reliability improvements could have just as likely been the result of more favorable weather. Weather bias, according to Environmental Advocates, is a recurring issue in other utility contexts such as load forecasting, where "[w]eather normalization of electric loads is common practice in utility regulation and ensures revenue impacts are not lopsided due to abnormal weather." *In re*

the Application of Golden Road Motor Inn, Inc., Case No. 18-08007, Nevada Pub. Util. Comm., Order (Feb. 20, 2019) at *19. Environmental Advocates and STC further assert that Mr. Volkmann's benefits calculation is consistent with all other evidence in the record and that FirstEnergy failed to produce any evidence demonstrating that any utility has experienced or projected the type of DA benefits contemplated by FirstEnergy's cost-benefit analysis (ELPC Ex. 16; ELPC Ex. 17; Tr. Vol. I at 102-104). Mr. Volkmann even acknowledged that the projected reliability improvements during major storms/events were significantly higher than anything he has ever seen (Tr. Vol. II at 236, 271). As such, Mr. Volkmann recommends that the Commission require the Companies to establish a performance metric specifically for DA reliability improvements during major storms/events and set a performance target that aligns with the expected improvement in the cost-benefit analysis, rewarding or penalizing the Companies based on their ability to achieve that expected improvement, as well as revise their reliability performance standards accordingly (ELPC Ex. 32 at 24-25). Similarly, Mr. Volkmann suggests that the Commission modify the Stipulation to require the assessment on operational savings be expanded to incorporate an audit of all benefits of Grid Mod I (ELPC Ex. 32 at 24; Co. Ex. 1 at 22). Finally, Environmental Advocates again assert their arguments regarding how the inclusion of a smart thermostat program is necessary to achieve the benefits attributed to time-varying rate programs and customer energy management savings, as described above (ELPC Ex. 32 at 22-24, 28-32; Tr. Vol. I at 44).

{¶ 100} OMAEG and Kroger agree with Environmental Advocates' concerns and questions whether the grid modernization charges of up to $516 million is justified by the benefits that customers will actually receive from Grid Mod I, citing to ELPC witness Volkmann's testimony regarding the flawed methodology used in the cost-benefit analysis (ELPC Ex. 32 at 5-22). In fact, OMAEG and Kroger note that OCC and NOPEC both indicated that they were taking no position as to whether Grid Mod I would produce a positive cost-benefit analysis, but indicated that they would not oppose the results of the Companies' cost-benefit analysis for purposes of the Stipulation (Co. Ex. 3 at 8). Given the

lack of consensus amongst even the Signatory Parties on the amount of benefits to be derived from Grid Mod I, OMAEG, STC, Kroger, and Environmental Advocates also contend that the Companies have failed to meet their burden to prove the proposed charges are just and reasonable under Ohio law. R.C. 4905.22; *In re the Application of Duke Energy Ohio, Inc. for a Charge Pursuant to R.C. 4909.18*, Case No. 12-2400-EL-UNC, et al., Opinion and Order (Feb. 13, 2014) at 49. STC adds that the cost-benefit analysis presented in support of the Stipulation does not satisfy the standard set forth in the Roadmap, which requires that an application be accompanied by a cost-benefit analysis that would permit a transparent evaluation as to whether a particular grid modernization investment should be pursued. Specifically, STC takes issue with the fact that the cost-benefit analysis fails to provide a breakdown of the estimated costs or benefits of Grid Mod I, an explanation of the methodology utilized to derive the estimated costs and benefits, or the underlying assumptions. (Roadmap at 27; Co. Ex. 1 at Attach. B; Co. Ex. 2 at 10.) As such, STC, Kroger, and OMAEG assert that the Companies have failed to sustain their burden of proving that the results of the cost-benefit analysis supporting the Stipulation are reasonable, adding that the mere statement that the Signatory Parties "agree that Grid Mod I produces a positive cost-benefit" falls short of the evidentiary support required to demonstrate such net benefits will actually materialize (Co. Ex. 1 at 10).

{¶ 101} FirstEnergy claims Mr. Volkmann is not opposed to the proposed elements of Grid Mod I and merely raises issue with the cost-benefit analysis conducted by the Companies, namely questioning whether the benefits, particularly the benefits associated with DA, will exceed the costs (ELPC Ex. 32 at 6). FirstEnergy also notes that Mr. Volkmann did not propose recommendations for values to use to calculate the cost-benefit analysis, including what values to use to calculate a more acceptable result based on his opinion (ELPC Ex. 32 at 17; Tr. Vol. II at 246). In fact, the Companies note that no party has offered probative evidence that would justify rejecting the results of the cost-benefit analysis, which was developed in collaboration with Staff (Co. Ex. 2 at 10).

{¶ 102} Additionally, FirstEnergy argues that Mr. Volkmann's opposing analysis is flawed for a variety of reasons. First, the Companies assert his belief that DA is less effective during major storm events when there is widespread system damage is not based on any studies he has seen or performed; rather, the Companies note Mr. Volkmann incorrectly relies on DA proposals he reviewed in North Carolina and Virginia, which are exposed to substantially different storm events and could produce widespread system damage that is much different than in Ohio (ELPC Ex. 32 at 9; Tr. Vol. II at 231-233, 235-237, 270-271). The Companies note these weather disparities are the reason why the state in which the utility operates is one of the first variables used in the Department of Energy's Interruption Cost Estimate (ICE) Calculator, which is utilized to estimate the economic benefits of expected reliability improvements from DA, as measured by SAIFI[15] and SAIDI[16] (Tr. Vol. II at 239). Instead, the Companies stress that their cost-benefit analysis relies on the actual historical results of their pilot program, Smart Grid Modernization Initiative (Pilot Program), which involved a 400-square-mile area southeast of Cleveland, Ohio to study the impacts and capabilities of AMI, DA, and IVVC. It was based on this data collected in Ohio under comparable weather events that FirstEnergy determined that DA deployment as part of Grid Mod I would result in SAIDI and SAIFI improvements during major storms/events of 46 percent and 40 percent, respectively, and SAIDI and SAIFI improvements during periods excluding major storms/events of 28 percent and 9 percent, respectively. (ELPC Ex. 32 at 10; ELPC Ex. 23-C; Business Plan at 3.) Generally, the Companies assert that parties cannot dispute that the benefits derived from DA, including reducing outage duration and the number of affected customers during an outage, accrue to customers during any outage event, including during major storms/events (Tr. Vol. II at 234-238).

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15 SAIFI is the System Average Interruption Frequency Index, which represents the average number of interruptions per customer. Ohio Adm.Code 4901:1-10-10(B)(1).

16 SAIDI is the System Average Interruption Duration Index. The SAIDI is calculated by multiplying the SAIFI times the customer average interruption duration index (CAIDI). Ohio Adm.Code 4901:1-10-01(T); Ohio Adm.Code 4901:1-10-11(C)(3)(e)(iii).

{¶ 103} Second, FirstEnergy criticizes Mr. Volkmann's decision to remove "outliers" from data used to calculate SAIDI and SAIFI improvements, arguing this attempt to normalize the data is based on a flawed and untested methodology and defeats the purpose of the analysis by eliminating differences between baseline period data and test period data. Specifically, FirstEnergy questions Mr. Volkmann's approach of eliminating a year of data from the test period, reducing it to a three-year average, based on his assumption that the reliability data produced during that year was too good to have resulted from DA. Moreover, FirstEnergy contests Mr. Volkmann's choice to discard a month of data from the baseline period based on his assumption that the major storms/events during that month were abnormal, despite the fact that he did not know whether major storms/events of similar intensity occurred during the test period. Additionally, the Companies note that this analysis also lacks a comparative appreciation between the Companies' Grid Mod I and Ohio Power Company's gridSMART project, which the Commission acknowledged contained substantial customer benefits over a 15-year period even without incorporating an ADMS, as is being proposed in the Companies' Grid Mod I. FirstEnergy adds that Mr. Volkmann arbitrarily decided when to classify weather events as too severe or too mild solely by referring to customer minutes interrupted and evaluating data on a monthly basis, rather than a "per event" basis. Even more troubling, according to the Companies, is that Mr. Volkmann neither evaluated what impact DA had on major storms/events for which he removed data from his analysis nor evaluated other studies about the impact of DA during major storms/events. Contrarily, the Companies assert their approach to average and compare all events on the same circuits over a five-year base period and a four-year study period reasonably included all "per event" data and all DA results. Overall, the Companies argue that Mr. Volkmann made several unfounded assumptions regarding the data related to the Companies' projected NPV of $234 million of benefits resulting from Grid Mod I over the next 20 years, and for that reason, FirstEnergy suggests that the Commission should disregard his testimony. (Tr. Vol. II at 233, 240-246; ELPC Ex. 32 at 11, 14-15, 17.) See also *In re the Application of Ohio Power Co.*, Case No. 13-1939-EL-RDR, Opinion and Order

(Feb. 1, 2017); *In re the Application of Columbus S. Power Co.*, Case No. 08-917-EL-SSO, Opinion and Order (Mar. 18, 2009).

{¶ 104} In response to Environmental Advocates, OEG and Staff argue that the suggested delay would also amount to a delay in providing customers millions of dollars in TCJA-related savings (Tr. Vol. II at 251-252; Staff Ex. 1 at 3). Additionally, OEG and Staff point to Staff witness Schaefer's testimony in which she states that, after reviewing the grid modernization proposal, she concluded Grid Mod I will benefit ratepayers and the public interest and agreed with all the assumptions used in the cost-benefit analysis (Staff Ex. 2 at 3-5; Tr. Vol. I at 202; Tr. Vol. II at 272-273). Therefore, OEG claims that Staff has sufficient understanding of Grid Mod I and that Environmental Advocates' request for a delay is unnecessary and would unduly prolong the proceeding, as well as delay the benefits of Grid Mod I.

{¶ 105} In their reply brief, Environmental Advocates again state that the burden of proof lies with the Signatory Parties to show that the Stipulation will satisfy the three criteria, including that the Stipulation will benefit ratepayers and the public interest. *In re Ohio Power Co.*, Case No. 14-1693-EL-RDR, et al., Opinion and Order (Mar. 31, 2016) at 18. Environmental Advocates and OMAEG claim that FirstEnergy failed to provide sufficient explanations or produce adequate evidence as to the reasonableness of its cost-benefit analysis and, instead, chose to attack the reasonableness of Mr. Volkmann's testimony. As such, Environmental Advocates suggest that FirstEnergy, by refraining from producing supportive evidence of the benefits derived from DA deployment, "assumes the risk that the Commission will find the opposing party's evidence to be credible and persuasive." *In re Application of Ohio Edison Co.*, Case No. 89-1001-EL-AIR, Entry on Rehearing (Oct. 11, 1990). Specifically, Environmental Advocates again raise the fact that FirstEnergy never explains the duplicate outage data used to determine its SAIDI and SAIFI calculations, leading to a projected SAIDI improvement excluding major storms/events to 28 percent, rather than the more appropriate 16 percent calculated by Mr. Volkmann after omitting such

duplicate data (ELPC Ex. 32 at 11-13). Further, Environmental Advocates contend that FirstEnergy failed to offer evidence rebutting Mr. Volkmann's testimony on the unreasonableness of the magnitude of DA deployment benefits attributed to the period during major storms/events. According to Environmental Advocates, he is the only witness who provided testimony on the appropriate level of benefits attributed to DA deployment with the requisite experience and background to do so (Tr. Vol. II at 229-232, 235; ELPC Ex. 32 at 1, CV-1; Roadmap at 18-19, 39). In contrast, Environmental Advocates note that FirstEnergy witness Fanelli only provided generic, conclusory testimony regarding Grid Mod I benefits and does not have any background in engineering or experience with any prior grid modernization projects (Co. Ex. 2 at 1, 9). Moreover, Environmental Advocates maintain that Staff witness Schaefer's testimony did not address the estimated DA benefits; instead, she states in her testimony that Staff was not supporting the cost-benefit analysis directly, but "generally [Staff] agreed with [the Companies'] assumptions" underlying its analysis (Tr. Vol. I at 202).

f. Commission Decision

{¶ 106} As an initial matter, we feel it necessary to address the guidance provided in the Roadmap and how parties should rely on that guidance in future proceedings. The attorney examiner aptly indicated during the evidentiary hearing that the Roadmap was not meant to act as a "detailed set of procedural guidelines for dealing with these cases," or any other proceedings before the Commission (Tr. Vol. I at 21). Instead, the Roadmap serves to set forth "certain policy positions, outline principles and objectives, and express a vision to allow the state to pursue grid modernization responsibly." (Roadmap at 4). Similar to our approach regarding the state policies set forth in R.C. 4928.02, an application proposing grid modernization efforts is not required to foster every single objective set forth in the Roadmap or maximize any one objective at the expense of the others; rather, it encourages utilities to propose programs and initiatives that incorporate these principles and objectives in a responsible manner. We are still bound by the statutory framework that dictates our decision-making process, just as the utilities continue to bear the burden of proof for any

application submitted for our consideration. Further, the Commission has consistently indicated that any conclusions contained in the Roadmap will be reviewed *de novo* by the Commission when applied in cases before the Commission. With that being said, we will now evaluate whether the Stipulation, as a package, benefits ratepayers and the public interest.

{¶ 107} As noted conclusively by the Signatory Parties, and verified by the record evidence, the Stipulation provides a substantial benefit in the return to customers of over $900 million associated with the TCJA (Co. Ex. 1 at 7-9; Co. Ex. 2 at 2-3; Co. Ex. 3 at 2; Co. Ex. 4 at 2; Staff Ex. 1 at 3; ELPC Ex. 27-C). Additionally, we find the tax credit mechanism contemplated by the Stipulation to be an appropriate means to return these funds to customers (Staff Ex. 1 at 3; Co. Ex. 2 at 4; Co. Ex. 3 at 2, Attach. A, Attach. E). As demonstrated by OCTA witness Kravtin, the Stipulation also resolves several current and potential future pole attachment issues (OCTA Ex. 1 at 1, 6; Co. Ex. 1 at 25-28; Tr. Vol. I at 25-26). The only issue that remains in dispute, according to OMAEG and Kroger, is whether the allocation of the return is appropriate among rate classes. We disagree with OMAEG and Kroger's characterization of the revised allocation of the TCJA credits, noting that this Commission has previously reviewed whether a customer class is excessively impacted by a proposed rate allocation in order to promote equitable results among all utility customers. *ESP IV Case*, Fifth Entry on Rehearing (Oct. 12, 2016) at ¶ 211. Mr. Willis' testimony supports this very issue. In fact, as noted by OCC and FirstEnergy, Mr. Willis is the only witness that presented testimony specific to the allocation of the tax credits (OCC Ex. 1 at 5, 7, Attach. B; Co. Ex. 1 at 27). We agree that the revised allocated amount of the rate reduction refund to residential customers is reasonable and, thus, decline to adjust the agreed-upon allocation.

{¶ 108} Similarly, all of the interested parties generally agree that the improvements contemplated in Grid Mod I will benefit FirstEnergy's customers and the public interest. The Commission's discussion regarding Grid Mod I is, therefore, limited to answering the following questions: whether a smart thermostat program is necessary to achieve the level

of projected benefits associated with AMI; whether the cost-benefit analyses presented are reliable as to the expected net benefits to be derived from Grid Mod I in order to demonstrate that Grid Mod I will result in a positive NPV; and whether additional customer protections are necessary during the implementation of Grid Mod I, if approved.

{¶ 109} As to the first question, we do not believe a smart thermostat program is necessary for customers to realize the projected benefits associated with Grid Mod I. Given the high participation rate of more than 80 percent of the Companies' customers participating in the competitive retail market, we note that customers will benefit if time-varying rate offers are provided by competitive suppliers. The Stipulation recognizes this by establishing the platform, making the necessary data and systems available, and allowing customers and competitive suppliers the ability to benefit from AMI and time-varying rates, which may incorporate enabling technologies through direct purchase by the consumer or a competitive supplier program. (Tr. Vol. I at 105-106; Co. Ex. 1 at 17-18). We also believe this approach to be consistent with the guidance provided in the Roadmap, in which we specifically noted that behind-the-meter innovation "is more likely to succeed in the competitive marketplace than in a regulated environment." (Roadmap at 23). With the increased granularity and availability of data access, Grid Mod I will "help facilitate and stimulate market participation in those sorts of innovative products and service offerings." (Tr. Vol. I at 103). Further, substantial evidence was given in support of the fact that smart thermostat programs are currently, and more appropriately, included in the Companies' EE/PDR Portfolio Plan, given the fact that they offer EE/PDR benefits on a stand-alone basis, without AMI and time-varying rates (Tr. Vol. II at 247, 285). See also *FirstEnergy POR Case*. As noted above, we do not believe the evidence demonstrates that a smart thermostat program is required to realize the AMI benefits projected for Grid Mod I (ELPC Ex. 23-C; Tr. Vol. I at 46-49, 51, 67-68, 102-104). We agree with the position of the Signatory Parties, that Grid Mod I strikes a reasonable balance of efficient regulatory initiatives and market forces to benefit customers and achieve the Commission's objectives in the grid modernization initiative and the *ESP IV Case*. We refrain from including a program that

shifts that balance, especially given its uncertain cost paradigm and the fact that doing so would run in direct contradiction to the Commission's objective of encouraging a robust marketplace. If STC is interested in improving the availability of smart thermostats to customers in FirstEnergy's service territory in order to support Ohio's competitive marketplace, we encourage STC to actively work with competitive suppliers currently lacking such programs or propose manufacturer marketing campaigns.

{¶ 110} Even without the implementation of a smart thermostat program, the record provides ample uncontested evidence that Grid Mod I will result in the creation of innovative products and an environment conducive to allowing customers to better manage their energy usage, including elements such as a web portal to allow CRES providers access to customer interval data and to enable customers to monitor and adjust their usage (IGS Ex. 1 at 3-8; Co. Ex. 1 at 14-16; Staff Ex. 2 at 5; Tr. Vol. I at 49, 79, 103, 188, 204, 214-215). Of significant benefit is the Companies' commitment to offer a time-varying rate, which the Company avers is meant to act as an interim measure until such time the competitive market develops its own alternative and comparable products (Tr. Vol. I at 105-106; Co. Ex. 1 at 17-18). While STC raises concerns about the ability of the Companies to request withdrawal of its time-varying rate sometime in the future, the Commission agrees with IGS and FirstEnergy that STC's arguments are premature as the eventual transition will result from the collaborative process laid out in the Stipulation, including due process for any interested parties, and will require Commission approval before withdrawal is permitted (Co. Ex. 1 at 14, 17-18). We find that this collaborative process will be sufficient to eliminate the concerns raised by STC and remains consistent with the objectives set forth in the Roadmap (Roadmap at 23-24).

{¶ 111} Turning to the next question, we are required to evaluate the reliability of the cost-benefit analyses presented in these proceedings. As a preliminary matter, we note that grid modernization should only be implemented if the benefits of grid modernization

outweigh the costs. Thus, a positive cost-benefit analysis is critical in our consideration of grid modernization proposals.

	Companies' Projections		Volkmann's Projections	
(in millions)	20-Year Nominal	NPV	20-year Nominal[17]	NPV
Total Benefits	$1,782	$808	$936	$418
Total Costs	$683	$574	$683	$574
Net Benefits	$1,098	$234	$253	$(156)

{¶ 112} We initially note that no evidence or testimony has been submitted on the record to contest the projected costs of Grid Mod I, as calculated by the Companies. In fact, Mr. Volkmann accepts the cost estimates produced by the Companies for the purpose of conducting his own cost-benefit analysis (ELPC Ex. 32 at 18-19).[18] Similarly, no party questioned whether the ICE Calculator is an appropriate means to calculate the projected benefits resulting from the various projects of Grid Mod I. Instead, our analysis is centered on whether the data and assumptions used to calculate the resulting projected benefits are appropriate. While we find the Smart Grid Consumer Collaborative report to be instructive as to the expected participation rates of customers, we disagree with Environmental Advocates that the $40.14 per customer per year of indirect economic benefits accurately reflects the total economic benefits experienced by customers (ELPC Ex. 32 at 18-19; ELPC

17 Mr. Volkmann's testimony only explicitly provides a nominal amount attributable to the DA benefits of $389 million (20-year nominal), compared to the Companies' projected $1,235 million attributable to the DA benefits. He did not provide a revised number for total benefits on a nominal basis. However, if maintaining other categories of benefits and adding the revised DA benefit amount, we believe Mr. Volkmann is suggesting total and net benefit amounts in the amounts described in this chart.

18 While Mr. Volkmann notes that the projected operational savings proposed by the Companies may, likewise, be unrealistic, he nonetheless uses the Companies' cost estimates for the purposes of his analysis.

Ex. 17, Page 48 of 61). Importantly, we note that the data used by FirstEnergy regarding the major storms/events is data collected within the Companies' service territories as a part of their Pilot Program. This is not hypothetical data based on assumptions or otherwise. We recognize the profound rarity to have at our disposal such readily available data as to the impacts of DA, AMI, and IVVC deployment in Ohio and, therefore, attribute substantial weight to this evidence. Consequently, based on this data, we find it appropriate for the Companies to anticipate a larger degree of improvement in storm restoration efforts after deploying DA to the extent set forth in Grid Mod I. (ELPC Ex. 32 at 10; ELPC Ex. 23-C; Business Plan at 3.)

{¶ 113} We also find that Mr. Volkmann's suggestion to remove what he considers to be "outlier data" used to calculate the SAIDI and SAIFI improvements in an effort to normalize the weather patterns is unfounded. We agree that, when comparing the baseline period and the test period, there may be adjustments required to ensure the results of our analysis actually capture the effect of the DA deployment; however, Mr. Volkmann testified that he did not know if there were major storms/events of similar intensity that occurred during the test period when he removed a month of data based on his assumption that the weather patterns for that month were abnormal. We also disagree with removing a year of data from the test period because Mr. Volkmann considered the results to be too positive. As we noted above, these DA deployment results were generated from the Pilot Program and depict actual results from a comparable program in the Companies' service territories, albeit on a smaller scale. Further, Mr. Volkmann acknowledged that he did not evaluate other studies about the impact of DA during major storms/events. (Tr. Vol. II at 233, 240-246; ELPC Ex. 32 at 11, 14-15, 17.) Despite overlooking duplicative data points in its initial review of the projected benefits, Staff explicitly recognizes the underlying assumptions of the cost-benefit analysis are reasonable (Tr. Vol. I at 202, Tr. Vol. II at 252-253).

{¶ 114} On a final note, Mr. Volkmann did not propose recommendations for values to use to calculate the cost-benefit analysis, including what values to use to calculate a more

appropriate result based on his various suggestions (ELPC Ex. 32 at 17; Tr. Vol. II at 246). Nonetheless, Mr. Volkmann suggests that the net benefits associated with Grid Mod I amount to a negative $156 million (ELPC Ex. 32 at 18).

{¶ 115} Although the Commission rejects many of the suggestions put forth by Mr. Volkmann regarding the calculation of benefits produced by the Companies, we agree that, the Companies' projections regarding SAIDI and SAIFI improvements must be modified to eliminate the duplicative data points identified by Mr. Volkmann. Mr. Volkmann did not include alternative results in the event we accepted his recommendation to eliminate the duplicative data points but rejected his other suggested adjustments to the cost-benefit analysis. However, we note that, in calculating the projected benefits attributable to DA, the Companies, using data from the Pilot Program, evaluated each of the 2,878 circuits in Ohio to determine the potential individual circuit reliability improvement, which provided the data inputs for the ICE Calculator (ELPC Ex. 32 at 11-13; Business Plan at 3, 19-20). In light of this evaluation, there is no evidence in the record indicating that, with the corrections to the duplicative data points but rejecting the other issues raised by Mr. Volkmann, the net benefits of Grid Mod I would be negative. While far from a perfect reflection of the updated SAIDI and SAIFI projected improvements, in order to attempt to quantify the estimated level of benefits attributable to Grid Mod I for purposes of evaluating the Stipulation, the record demonstrates that decreasing the economic benefit per circuit amount by the percentage decreases in the respective SAIDI and SAIFI improvement metrics suggested by Mr. Volkmann still results in total estimated net benefits of roughly $1,024 million (20-year nominal) or approximately $200 million (NPV).[19] (ELPC Ex. 23-C).

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[19] For reliability improvements, Mr. Volkmann's suggestion reduced SAIFI and SAIDI improvements by 1 and 12 percent, respectively, totaling a 13 percent reduction. For storm restoration (i.e., including major storms/events), Mr. Volkmann's suggestion reduced SAIFI and SAIDI improvements by 1 and 2 percent, respectively, totaling a 3 percent reduction. The same cost estimates were used to calculate the net benefits. Additionally, to calculate the NPV, the Commission utilized the same after-tax weighted average cost-of-capital (WACC) as that used in the cost-benefit analysis (ELPC Ex. 23-C).

{¶ 116} Similar to the assertions of Staff, OCC, NOPEC, and OPAE, we agree that the quantitative net benefit associated with Grid Mod I cannot be ascertained with certainty, but we can acknowledge that Grid Mod I is expected to produce a positive cost-benefit to ratepayers, even after we afford the appropriate and deserving weight to Mr. Volkmann's analysis (Co. Ex. 1 at 10; Co. Ex. 3 at 8).

{¶ 117} In addition, as we noted before, the Commission's test for evaluating stipulations requires us to consider the Stipulation, *as a package*, rather than limit our analysis to any one component to the Stipulation. Recognizing this, even accepting a lower net benefit estimate for Grid Mod I, we note that the benefit produced by the commitment of FirstEnergy to return to customers over $900 million in savings attributable to the TCJA is substantial and ensures the Stipulation will quantitatively benefit the public interest (ELPC Ex. 27-C). In light of our conclusions regarding the weight to be given Mr. Volkmann's testimony above, we need not address the question of whether the Stipulation would be appropriate even if we found Grid Mod I to have a negative NPV, as suggested by Mr. Volkmann, in light of the committed return to customers of $900 million in tax savings. Our decision today is based on our review of the evidence and finding that Grid Mod I is projected to result in a positive net benefit, which we determined to be at least $200 million (NPV). The fact that the Stipulation also provides for over $900 million of TCJA impacts being returned to customers only solidifies our finding that the Stipulation will benefit ratepayers and the public interest.

{¶ 118} Moving to the final aspect of our analysis of the second criterion, the Signatory Parties encourage the Commission to approve the Stipulation, assuring us that extensive protections will be afforded to customers during the course of Grid Mod I. Notably, the Stipulation contains a set of performance metrics by which the Companies have committed to routinely monitor, measure, and report to Staff the status of the deployment and other related benefits associated with the grid modernization projects as part of the Rider AMI quarterly update process (Co. Ex. 1 at 22, Attach. C; Co. Ex. 3 at 8). Additionally,

the Stipulation sets certain cost recovery caps on various components of Grid Mod I, including a ceiling of $516 million on the amount of capital costs the Company may recover from customers, with a ceiling of $16 million for AMI-related expenditures and up to $50 million in distribution platform modernization work as outlined in the Companies application in the *DPM Plan Case* (Co. Ex. 3 at 7). We also recognize the continuing collaborative effort facilitated by the Stipulation's creation of the Collaborative Group that will allow stakeholders to continue to provide input associated with the Grid Mod I deployment and recommendations for Grid Mod II (Co. Ex. 1 at 14-15; Co. Ex. 3 at 4-5; OCC Ex. 1 at 6-7; Staff Ex. 2 at 5). We agree with OPAE and OCC that these protections are necessary to ensure consumers receive the benefit of grid modernization efforts and the resulting charges are just and reasonable (OCC Ex. 1 at 6, 8-9). Further, we find STC's recommendation that the Commission direct the Companies to permit STC to participate in the Collaborative Group to be unnecessary. The Stipulation clearly states that any stakeholder may participate in the Collaborative Group (Co. Ex. 1 at 14; Co. Ex. 3 at 4). However, the Companies should plan to report to Staff, as part of the Rider AMI quarterly update process, the identity of stakeholders requesting to participate in the Collaborative Group to ensure no interested stakeholder is inadvertently excluded.

{¶ 119} In response to OMAEG and Kroger's concerns pertaining to Rider DMR, we find their arguments to be meritless. Rider DMR was created under FirstEnergy's most recent ESP and its terms and conditions were established in that case. *ESP IV Case*, Fifth Entry on Rehearing (Oct. 12, 2016) at ¶ 209, Seventh Entry on Rehearing (Feb. 1, 2017) at ¶¶ 10-12, Eighth Entry on Rehearing (Aug. 16, 2017) at ¶ 76. In any event, on June 19, 2019, the Supreme Court of Ohio issued its decision in *In re Application of Ohio Edison Co., Slip Opinion No. 2019-Ohio-2401* (*Ohio Edison*), affirming the Commission's order, in part, and reversing it, in part, as it related to Rider DMR, and remanding with instructions to remove Rider DMR from FirstEnergy's ESP. Specifically, the Supreme Court of Ohio held that Rider DMR does not qualify as an incentive under R.C. 4928.143(B)(2)(h) and the conditions placed on the recovery of Rider DMR revenues were not sufficient to protect ratepayers. *Ohio Edison*

at ¶¶ 14-29. On the other hand, Rider AMI's tariff language explicitly notes that it is subject to Commission audit and, in the event of a disallowance resulting from that audit or a decision by the Supreme Court of Ohio determining that recovery is unlawful, refund. Staff, or the third party auditor, will thoroughly evaluate the costs subject to recovery under Rider AMI for Grid Mod I and minimize, if not effectively eliminate, the risk of double recovery. These riders were approved for entirely different purposes and the Commission will ensure that these funds are used for the projects contemplated in the Stipulation, consistent with other recent grid modernization efforts. We also note, to the extent that parties have argued that the grid modernization benefits would be unreasonable given the Companies' application for an extension of Rider DMR, these arguments are moot in light of *Ohio Edison*.

{¶ 120} For similar reasons, we do not find the arguments of OMAEG and Kroger regarding their suggestions to revise the proposed tariff language for Rider AMI to have any merit. The tariff language proposed by the Signatory Parties, including FirstEnergy, clearly anticipates the possibility that, as a result of an audit ordered by the Commission, a disallowance may occur and such disallowance may result in a refund to ratepayers. As such, the language sufficiently protects customers in the event of such a disallowance, whether ordered by the Commission after an audit or by the Commission on remand from the Supreme Court of Ohio, and no additional modifications are necessary.

{¶ 121} While the Stipulation does place certain parameters around Grid Mod I that will protect customers during its implementation, we do agree with some of the concerns raised by Environmental Advocates, OMAEG, and Kroger. Most importantly, we recognize that the estimated net benefit projections are just that and Grid Mod I should have the requisite controls in place to routinely monitor the projected and resulting costs and benefits associated with its programs. We note that the Stipulation provides for the opportunity for the Staff, or a consultant for the Staff, to conduct an independent cost-benefit analysis for the project, midway through the implementation period, although the Stipulation does not require that this cost-benefit analysis be performed (Co. Ex. 1 at 22). We will not modify the

Stipulation to require that this additional cost-benefit analysis be performed; however, we expect that it will be performed unless the actual results from the Grid Mod I are substantially consistent with the projections submitted by the Companies in this proceeding (while correcting for duplicative data points as discussed above). Accordingly, in the event that the additional cost-benefit analysis is not performed, we direct Staff, or its consultant, to file a notice in this docket explaining why the additional cost benefit analysis should not be performed.

{¶ 122} With such protections in place, we are confident to conclude that the Stipulation, as modified, satisfies the second criterion.

3. DOES THE SETTLEMENT PACKAGE VIOLATE ANY IMPORTANT REGULATORY PRINCIPLE OR PRACTICE?

a. Party Arguments

{¶ 123} The Signatory Parties also contend that the Stipulation violates no regulatory principle or practice (Co. Ex. 1 at 5; Co. Ex. 3 at 1-2). On the contrary, the Signatory Parties argue that the Stipulation represents a resolution for several pending matters before the Commission that would otherwise require significant time and resources to litigate and is consistent with the state's policy set forth in R.C. 4928.02, the Commission's objectives in the grid modernization initiative, and the Commission's directives in the *TCJA Investigation*.

{¶ 124} FirstEnergy initially notes that the Stipulation represents a resolution for several pending complex matters before the Commission, including the Companies' responsibility to address its remaining TCJA-related issues. See *TCJA Investigation*, Finding and Order (Oct. 24, 2018) at ¶ 29. Moreover, the Companies, Direct Energy, and IGS again assert that the Stipulation advances many of the Commission's objectives, including: (1) to create an environment that fosters technological innovation and organic growth; (2) to develop a distribution system that is reliable and resilient; and (3) to ensure investments create societal benefits and allow for an enhanced customer electricity experience (Co. Ex. 2 at 12; Roadmap at 8-9, 31-33).

{¶ 125} The Stipulation, according to Signatory Parties, will also afford significant improvements in the competitive retail electric market and ensures customers will receive total tax savings of approximately $900 million consistent with the state's policy set forth in R.C. 4928.02[20] and the Commission's directives in the *TCJA Investigation*, including resolving issues related to the Companies' pole attachment rates (Staff Ex. 2 at 4; Co. Ex. 2 at 12; OCTA Ex. 1 at 1, 6). *TCJA Investigation*, Finding and Order (Oct. 24, 2018) at ¶¶ 29, 31. OCTA agrees that the Stipulation, namely Section V.J., does not violate any important regulatory principles or practices; rather, OCTA states its provisions regarding excess ADIT and the impact of the TCJA on pole attachment rates is consistent with the Commission's prior determination that customers should receive the savings derived from the TCJA. *TCJA Investigation*, Finding and Order (Oct. 24, 2018) at ¶ 30. Similarly, Staff notes that the operational savings associated with the DA and IVVC deployment will also further state policy, as the savings will count toward the Companies' benchmarks for energy efficiency and peak demand reduction programs, pursuant to R.C. 4928.66 (Staff Ex. 2 at 7). Finally, the Companies and Staff note that intervenors opposing the Stipulation have failed to present any evidence demonstrating that the Stipulation violates any regulatory principle or precedent, including the testimony presented by STC witness Tamara Dzubay, as discussed above.

{¶ 126} Furthermore, OCTA indicates that the Collaborative Group is consistent with the Commission's regulatory practice in other grid modernization endeavors. *In re the PowerForward Collaborative*, Case No. 18-1595-EL-GRD; *In re the PowerForward Distribution System Planning Workgroup*, Case No. 18-1596-EL-GRD; *In re the PowerForward Data and Modern Grid Workgroup*, Case No. 18-1597-EL-GRD.

{¶ 127} Finally, OCC also notes that the supplemental stipulation removed an inappropriate restriction on the Signatory Parties' ability to communicate with legislators;

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[20] R.C. 4928.02(D) specifically provides it is the policy of the state to "encourage innovation and market access for cost-effective supply-and-demand-side retail electric service including * * * smart grid programs, and implementation of advanced metering infrastructure."

thus, OCC now contends the Stipulation promotes the flow of information from stakeholders to elected government officials (Co. Ex. 1 at 29).

{¶ 128} OMAEG, Environmental Advocates, and Kroger initially note that the Stipulation fails to ensure non-discriminatory and reasonably priced electric service, in accordance with R.C. 4928.02(A). As argued before, OMAEG and Kroger contend that costs authorized under the Stipulation for grid modernization appear to be duplicative of costs that are already being collected through Rider DMR. As the Commission noted that Rider DMR funds could be used for distribution modernization, OMAEG and Kroger contend that the Companies should be required to demonstrate that the funds collected under Rider DMR are not redundant or duplicative as those collected through Rider AMI, thereby avoiding potential double recovery. (Co. Ex. 1 at 10; Co. Ex. 2 at 9-10; Tr. Vol. I at 156-157). *ESP IV*, Fifth Entry on Rehearing (Oct. 12, 2016) at ¶ 119. OMAEG and Kroger again note that the rate design described in the Stipulation is discriminatory, as it unfairly shifts costs to non-residential customers in violation of state policy and fundamental fairness for the mere purpose of increasing the number of signatory parties.

{¶ 129} OMAEG and Kroger also argue that the Stipulation fails to ensure cost-effective and efficient access to information, in accordance with R.C. 4928.02(E), by allowing the Companies to once again collect hundreds of millions of dollars for distribution modernization. Lastly, OMAEG and Kroger claim that the Stipulation also fails to facilitate the state's effectiveness in the global economy, in accordance with R.C. 4928.02(N). Based on the testimony of ELPC witness Volkmann, these parties allege that the exaggeration of benefits afforded to Grid Mod I will result in an increase in the cost of electric service for the Companies' customers, making Ohio a less attractive place for companies and businesses to locate, expand, or operate (ELPC Ex. 32).

{¶ 130} FirstEnergy asserts that the arguments made by Environmental Advocates, OMAEG, and Kroger in which they contend that the Stipulation violates R.C. 4928.02(A), (E), and (N) are meritless and based on the same customer benefit-related arguments as

discussed above. Initially, FirstEnergy notes that the Commission has consistently stated its support for grid modernization, most notably in its recent grid modernization initiative (Roadmap at 31). See also *ESP IV Case*, Opinion and Order (Mar. 31, 2016) at 95-96 (where the Commission stated "Ohio policy supports innovation through implementation of smart grid programs and advanced metering infrastructure. R.C. 4928.02(D). Further, modernizing the grid in the Companies' service territories is also consistent with efforts to make the grid more reliable and cost effective for consumers."). Despite OMAEG and Kroger's arguments regarding the cost-effectiveness of Grid Mod I, FirstEnergy asserts the Commission has found grid modernization improvements benefit customers by making the grid both more reliable and more cost-effective for customers. *ESP IV Case*, Opinion and Order (Mar. 31, 2016) at 96. Finally, the Companies contend that the arguments raised by OMAEG and Kroger are the same arguments these parties raised as the second criterion and should be rejected for the same reasons raised by the Companies in that section.

b. Commission Decision

{¶ 131} The Commission finds that the record demonstrates that the Stipulation does not violate any important regulatory principles or practice. Contrary to the assertions of OMAEG, Environmental Advocates, and Kroger, we find that the Stipulation advances the state policies enumerated in R.C. 4928.02. Specifically, we note that the Stipulation will afford significant improvements in the competitive retail electric market in support of the state policy to ensure the availability of unbundled and comparable retail electric service that provides consumers with the supplier, price, terms, conditions, and quality options they elect to meet their respective needs. R.C. 4928.02(B). Moreover, the Stipulation ensures customers will receive total tax savings of approximately $900 million, consistent with the Commission's directives in the *TCJA Investigation* as well as the state's policy to ensure the availability to consumers of adequate, reliable, safe, efficient, nondiscriminatory, and reasonably priced retail electric service. *TCJA Investigation,* Finding and Order (Oct. 24, 2018) at ¶¶ 29-31; R.C. 4928.02(A). Further, the Stipulation promotes reasonably priced electric service by creating a more conducive environment for customers to manage their

electricity usage consistent with the state policy to encourage innovation and market access for cost-effective supply- and demand-side retail electric service including demand-side management, time-differentiated pricing, smart grid programs, and implementation of AMI. R.C. 4928.02(D). At the same time, the Stipulation resolves several issues related to pole attachment rates that may otherwise arbitrarily increase amounts paid by customers. (Staff Ex. 2 at 4; Co. Ex. 2 at 12; OCTA Ex. 1 at 1, 6.) Similarly, as noted by Staff, the operational savings associated with the DA and IVVC deployment will also further state policy because savings will count toward the Companies' benchmarks for EE/PDR programs, pursuant to R.C. 4928.66 (Staff Ex. 2 at 7).

{¶ 132} Further, we agree that many of the arguments raised by parties under this third criterion replicate those addressed, and rejected, in our discussion above. Finally, we agree that parties opposing the Stipulation have failed to present any evidence demonstrating that the Stipulation violates any regulatory principle or precedent. Accordingly, we conclude the third criterion of the Commission's three-part test to evaluate the Stipulation is met.

{¶ 133} Based on the foregoing, we find that the Stipulation, as modified, is reasonable and should be approved.

V. ORDER

{¶ 134} It is, therefore,

{¶ 135} ORDERED, That the pending motions for protective order filed by FirstEnergy and Environmental Advocates be granted, in accordance with Paragraphs 20-23. It is, therefore,

{¶ 136} ORDERED, That the Stipulation be approved as modified in this Opinion and Order. It is, further,

{¶ 137} ORDERED, That FirstEnergy is authorized to file in final form two complete copies of its tariffs consistent with this Opinion and Order, subject to final Commission approval. One copy shall be filed with these case dockets, and one copy shall be filed in each company's respective TRF docket. It is, further,

{¶ 138} ORDERED, That FirstEnergy shall notify all affected customers of the tariffs via bill message or bill insert within 30 days of the effective date of the revised tariffs. A copy of this customer notice shall be submitted to the Commission's Service Monitoring and Enforcement Department, Reliability and Service Analysis Division, at least ten days prior to its distribution to customers. It is, further,

{¶ 139} ORDERED, That the effective date of the revised tariffs shall be a date not earlier than the date of this Opinion and Order and the date upon which the complete copies of the final tariffs are filed with the Commission. It is, further,

{¶ 140} ORDERED, That nothing in this Opinion and Order shall be binding upon this Commission in any future proceeding or investigation involving the justness or reasonableness of any rate, charge, rule, or regulation. It is, further,

{¶ 141} ORDERED, That a copy of this Opinion and Order be served upon each party of record.

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

GAP/MJA/mef

Case No(s). 16-0481-EL-UNC, 17-2436-EL-UNC, 18-1604-EL-UNC, 18-1656-EL-ATA

Summary: Opinion & Order that the Commission approves and adopts the Stipulation filed by various parties to these proceedings, as modified herein. electronically filed by Docketing Staff on behalf of Docketing