



# **The Report of the Energy Mandates Study Committee**

September 30, 2015  
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## **I. INTRODUCTION**

The Energy Mandates Study Committee (the “Study Committee”) was created by Substitute Senate Bill No. 310 of the 130<sup>th</sup> General Assembly (“SB310”). The Study Committee consisted of a bipartisan panel of members of both the Ohio House and Senate and the chairperson of the Public Utilities Commission of Ohio (“PUCO”). SB310 tasked the Study Committee with studying Ohio’s renewable energy, energy efficiency, and peak demand reduction mandates (collectively, the “Mandates”) enacted into law by Amended Substitute Senate Bill No. 221 of the 127<sup>th</sup> General Assembly (“SB221”).

By September 30, 2015, SB310 requires the Study Committee to submit a report of its findings to the House and Senate that includes, at a minimum, the following:

1. A cost-benefit analysis of the renewable energy, energy efficiency, and peak demand reduction mandates, including the projected costs on electric customers if the mandates were to remain at the percentage levels required under sections 4928.64 and 4928.66 of the Revised Code, as amended by this act;
2. A recommendation of the best, evidence-based standard for reviewing the mandates in the future, including an examination of readily available technology to attain such a standard;
3. The potential benefits of an opt-in system for the mandates, in contrast to an opt-out system for the mandates, and a recommendation as to whether an opt-in system should apply to all electric customers, whether an opt-out system should apply to only certain customers, or whether a hybrid of these two systems is recommended;
4. A recommendation on whether costs incurred by an electric distribution utility or an electric services company pursuant to any contract, which may be entered into by the utility or company on or after the effective date of SB310 for the purpose of procuring renewable energy resources or renewable energy credits and complying with the requirements of section 4928.64 of the Revised Code, may be passed through to any consumer, if such costs could have been avoided with the inclusion of a change of law provision in the contract;

5. A review of the risk of increased grid congestion due to the anticipated retirement of coal-fired generation capacity and other factors; the ability of distributed generation, including combined heat and power and waste energy recovery, to reduce electric grid congestion; and the potential benefit to all energy consumers resulting from reduced grid congestion;
6. An analysis of whether there are alternatives for the development of advanced energy resources as that term is defined in section 4928.01 of the Revised Code;
7. An assessment of the environmental impact of the renewable energy, energy efficiency, and peak demand reduction mandates on reductions of greenhouse gas and fossil fuel emissions; and
8. A review of payments made by electric distribution utilities to third-party administrators to promote energy efficiency and peak demand reduction programs under the terms of the utilities' portfolio plans. The review shall include, but shall not be limited to, a complete analysis of all fixed and variable payments made to those administrators since the effective date of SB221, jobs created, retained, and impacted, whether those payments outweigh the benefits to ratepayers, and whether those payments should no longer be recovered from ratepayers. The review also shall include a recommendation regarding whether the administrators should submit periodic reports to the Commission documenting the payments received from utilities.

The Senate President and the Speaker of the House appointed the following members to the Study Committee:

Senator Troy Balderson, *co-chair*  
 Senator Cliff Hite  
 Senator Bob Peterson  
 Senator Bill Seitz  
 Senator Capri Cafaro  
 Senator Sandra Williams<sup>2</sup>

Representative Kristina Roegner, *co-chair*<sup>1</sup>  
 Representative Ron Amstutz  
 Representative Louis W. Blessing, III  
 Representative Christina Hagan  
 Representative Jack Cera  
 Representative Mike Stinziano

Andre T. Porter, in his capacity as the [Chairman](#) of the PUCO, also served as an ex officio, nonvoting member of the Study Committee.<sup>3</sup>

From November 2014 through July 2015, the Study Committee conducted eight public hearings. All testimony from those hearings, and testimony separately submitted to the Study Committee, can be found on the Study Committee's webpage at:

<sup>1</sup> Replaced former [Co-Chair](#), Representative Peter Stautberg, after his term of office ended on December 31, 2014.

<sup>2</sup> Replaced former Senator Shirley Smith after her term of office ended on December 31, 2014.

<http://esmc.legislature.ohio.gov/testimony>

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<sup>3</sup> Replaced former Chairman of the PUCO, Thomas W. Johnson, who served on the Study Committee from November 2014 through April 2015.

## II. FINDINGS OF THE STUDY COMMITTEE

### Historical Costs of Mandates

#### Renewables

Ohio's electric distribution utilities ("EDUs") and competitive retail electric suppliers ("CRES providers") are required to comply with Ohio's renewable mandate<sup>4</sup> by purchasing renewable energy credits ("RECs").<sup>5</sup> Ohio's renewable mandate is bypassable, which means customers pay for the mandate by paying whomever their electric provider is.<sup>6</sup> While EDUs specifically bill customers the exact cost of the mandate, CRES providers simply account for all of their costs (including the mandate) in their price offerings.<sup>7</sup> This is because CRES providers' rates are not set or approved by the PUCO.<sup>8</sup>

The most recent data the PUCO provided to the Study Committee on the cost of RECs in Ohio is from 2012,<sup>9</sup> which shows that in-state RECs were more expensive than out-of-state RECs.<sup>10</sup>

2012 Average Cost of RECs<sup>10</sup>

	Ohio Electric Distribution Utilities	Ohio Competitive Retail Electric Service Providers
Category	Avg. \$/REC	Avg. \$/REC

4 By 2026 and each year thereafter, EDUs and CRES providers must obtain at least 12.5% of its energy supply from renewables.

5 Thomas W. Johnson, PUCO Chairman, p. 3, Dec. 8, 2014.

6 Thomas W. Johnson, PUCO Chairman, p. 3, Dec. 8, 2014.

7 Thomas W. Johnson, PUCO Chairman, p. 3-4, Dec. 8, 2014.

8 Thomas W. Johnson, PUCO Chairman, p. 3-4, Dec. 8, 2014.

9 See DRAFT Alternative Energy Portfolio Standard Report by the Staff of the Public Utilities PUCO of Ohio for the 2012 Compliance Year, Issued January 14, 2014 pursuant to R.C. 4928.64(D)(1) (PUCO Case No. 13-1909-EL-ACP). Pursuant to R.C. 4928.64(D), the PUCO is required to submit an annual report to the General Assembly that sets forth whether EDUs complied with the renewables mandate, in addition to the average cost of RECs for the reporting year. The PUCO has not finalized the 2012 report that was due to the General Assembly in 2013. (see PUCO Case No. 13-1909-EL-ACP). The PUCO has not drafted the 2013 report that was due to the General Assembly in 2014, but a case has been opened (see PUCO Case No. 14-2328-EL-ACP). The PUCO has not drafted the 2014 report that was due to the General Assembly in 2015, nor has a case number been opened for that report.

10 Thomas W. Johnson, PUCO Chairman, Exhibit A, Dec. 8, 2014.

Ohio Solar	\$212.23	\$195.93
Other Solar	\$58.75	\$104.99
Ohio Non-Solar	\$33.51	\$13.08
Other Non-Solar	\$24.93	\$2.04

As of December 2014, the PUCO determined the average monthly charge for the renewables mandate as \$0.001142 per kilowatt hour,<sup>11</sup> which averaged out to the following monthly costs for each customer class:<sup>12</sup>

**Typical Bill Cost for Alternative Energy Rider (as of December 4, 2014)**

	AEP		Dayton Power & Light	Duke Energy	FirstEnergy		
Customer Class	Columbus Southern Power	Ohio Power	DPL	Duke-Ohio	Cleveland Electric Illuminating	Ohio Edison	Toledo Edison
Average Residential	\$1.31	\$0.77	\$0.62	\$0.27	\$1.30	\$1.01	\$0.77
Average Commercial	\$506.52	\$298.65	\$248.04	\$109.20	\$501.60	\$388.20	\$297.30
Average Industrial	\$9,928.80	\$5,854.20	\$4,960.80	\$2,184.00	\$9,738.00	\$7,536.00	\$5,778.00

Note: Average Residential typical usage 750 kWh

\_\_\_\_\_ Average Commercial typical usage 300,000 kWh

\_\_\_\_\_ Average Industrial typical usage 6,000,000 kWh

The table above shows that in 2014, the average residential customer saw a charge between \$0.27 and \$1.31. Multiplying these numbers by 12 months in a year, the average residential customer would have paid between \$3.24 and \$15.72 for a typical renewable ridermandate in 2014.

The actual costs paid by a customer for the renewables mandate on any given month is required to be placed on each customer's bill.<sup>13</sup>

### Energy Efficiency/Peak Demand Reduction

Unlike the renewables mandate, Ohio's energy efficiency and peak demand reduction mandates only apply only to EDUs.<sup>14</sup> The costs associated with complying with the energy efficiency and peak

<sup>11</sup> Thomas W. Johnson, PUCO Chairman, p. 3, Dec. 8, 2014.

<sup>12</sup> Thomas W. Johnson, PUCO Chairman, Exhibit B, Dec. 8, 2014.

<sup>13</sup> SB310 required the PUCO to adopt rules that require the costs of each mandate to be placed on each customer's bill. As of the date of publication of this Report, that rule has not yet been implemented.

demand reduction mandates are recovered by an EDU through a non-bypassable rider.<sup>15</sup> That rider is recovered from all customers of an EDU regardless of whether they shop for electric generation with the exception of those mercantile customers that pursued a rider exemption pursuant to provisions found in SB221.<sup>16</sup>

As of December 2014, the PUCO determined the average monthly charge for the energy efficiency and peak demand reduction mandates as \$0.007225 per kilowatt hour.<sup>17</sup> The PUCO only provided the range of the costs of the energy efficiency and peak demand reduction mandates for residential customers, which ranged from \$0.00189 to \$0.004566 per kilowatt hour.<sup>18</sup> The PUCO determined the average monthly costs of the energy efficiency and peak demand reduction mandates for the following customer classes to be:<sup>19</sup>

**Typical Bill Cost for Energy Efficiency and Peak Demand Rider (as of December 4, 2014)**

	AEP		Dayton Power & Light	Duke Energy	FirstEnergy		
Customer Class	Columbus Southern Power	Ohio Power	DPL	Duke-Ohio	Cleveland Electric Illuminating	Ohio Edison	Toledo Edison
Average Residential	\$3.42	\$3.42	\$3.43	\$2.58	\$3.31	\$2.37	\$1.42
Average Commercial	\$1,001.70	\$1,001.70	\$762.27	\$501.00	\$512.40	\$582.30	\$948.90
Average Industrial	\$5,719.80	\$5,719.80	\$13,050.60	\$10,020.00	\$5,076.00	\$14,496.00	\$15,606.00

Note: Average Residential typical usage 750 kWh

\_\_\_\_\_ Average Commercial typical usage 300,000 kWh

\_\_\_\_\_ Average Industrial typical usage 6,000,000 kWh

The table above shows that in 2014, the average residential customer saw a charge between \$1.420.27 and \$3.431.31 for an energy efficiency and peak demand rider. Multiplying these numbers by 12

14 Thomas W. Johnson, PUCO Chairman, p. 4, Dec. 8, 2014.

15 Thomas W. Johnson, PUCO Chairman, p. 4, Dec. 8, 2014.

16 Thomas W. Johnson, PUCO Chairman, p. 4, Dec. 8, 2014.

17 Thomas W. Johnson, PUCO Chairman, p. 3, Dec. 8, 2014.

18 Thomas W. Johnson, PUCO Chairman, p. 4, Dec. 8, 2014

19 Thomas W. Johnson, PUCO Chairman, Exhibit C, Dec. 8, 2014.

months in a year, the average residential customer would have paid between \$~~17.043.24~~ and \$~~41.1615.72~~ for a typical energy efficiency and peak demand rider~~renewable mandate~~ in 2014.

As of December 2014, the PUCO found that the total amount of the Mandates averaged out to be the following percentages of customers' total bills:<sup>20</sup>

**Alternative Energy and Energy Efficiency/Peak Demand Rider as a Percentage of Estimated Total Bill (as of December 4, 2014)**

	AEP		Dayton Power & Light	Duke Energy	FirstEnergy		
Customer Class	Columbus Southern Power	Ohio Power	DPL	Duke-Ohio	Cleveland Electric Illuminating	Ohio Edison	Toledo Edison
Average Residential	3.61%	3.20%	3.64%	3.07%	4.75%	3.54%	2.25%
Average Commercial	3.59%	3.09%	3.05%	1.96%	2.80%	3.04%	3.54%
Average Industrial	2.47%	1.82%	2.96%	2.39%	2.63%	4.11%	3.89%

Note: Average Residential typical usage 750 kWh

\_\_\_\_\_ Average Commercial typical usage 300,000 kWh

\_\_\_\_\_ Average Industrial typical usage 6,000,000 kWh

### **Grid Congestion**

Grid congestion occurs when electricity lines are unable to provide a sufficient amount of energy to meet the demand of all customers. This can happen from a lack of transmission/distribution infrastructure, storm damage, or even retirements of electric generators. Wholesale power purchasers typically buy electricity at the least expensive price available. When grid congestion limits the supply of electricity needed to meet the demand, the power purchasers are often forced to buy electricity from higher-cost suppliers resulting in higher electricity costs for customers.<sup>21</sup> Testimony was heard from PJM Interconnection regarding grid reliability and congestion. PJM is the Regional Transmission Organization (RTO) operating in Ohio. PJM ensures there are adequate resources to meet the forecasted demand of customers plus a reserve margin.<sup>22</sup> PJM ensured the power grid will remain reliable with the retirement of generating plants, because the PJM forward capacity market is attracting

<sup>20</sup> Thomas W. Johnson, PUCO Chairman, Exhibit D, Dec. 8, 2014.

<sup>21</sup> U.S. Department of Energy, National Electric Transmission Congestion Studies.

<sup>22</sup> Andrew Ott, PJM Interconnection Executive Vice President of Markets, p. 3, Mar. 18, 2015.

new resources. As shown on page 4 of PJM's slide attachment, the PJM capacity market has successfully attracted over 35,000 MW of new generation or upgrades throughout the PJM region, compared to the 26,000 MW in retirement notices to date.

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### *Future Costs of Mandates*

The Study Committee heard testimony from ~~Dr.~~ Ryan M. Yonk Ph.D., ~~of~~ Utah State University. Dr. Yonk, along with five individuals from Utah State University, published a comprehensive report in April 2015 entitled “Renewable Portfolio Standards: Ohio.”— That report concluded that Ohio’s renewables mandate will lead to the following:<sup>23</sup>

- Significant increases in fiscal and economic costs between now and 2026
- A \$1,920,000,000 burden on Ohio ratepayers
- A loss of 3,590 jobs
- A \$52,000,000 decrease in investment
- A decrease in personal disposable income of \$258 million in 2026
- An increase in the unemployment rate by 10%, which equates to 29,366 jobs.

The Study Committee did not receive any definitive data from the PUCO on the projected future costs of the energy efficiency and peak demand reduction mandates. In a letter from the PUCO to the Study Committee dated September 14, 2015, the PUCO stated that they do not currently have the capability to independently forecast the costs of implementing the energy efficiency mandates in future years with a high level of significance.

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<sup>23</sup> ~~Dr.~~ Ryan Yonk, Ph.D., Utah State University, p. 8, July 20, 2015.

### **The Clean Power Plan**

On August 3, 2015, the United States Environmental Protection Agency (“US EPA”) released a final version of its proposed Clean Power Plan (“CPP”), ~~which is~~ a rule that sets performance rates and individual state targets for carbon dioxide emissions from existing power plants. Issued under the apparent authority of Section 111(d) of the Clean Air Act, the CPP seeks to reduce emissions by 32% nationwide by 2030, relative to 2005 levels.

Each state is given specific targets under the final version of the CPP. Under a rate-based carbon reduction plan, Ohio would be required to reduce its carbon dioxide emissions by 37% between 2012 and final implementation of the CPP.<sup>24</sup> Under a mass-based carbon reduction plan, in which reductions are measured in shorts tons, Ohio would be required to reduce its carbon emissions by approximately 27%. Ohio’s mandated target was also increased by roughly 11% from the US EPA’s original proposed rule.<sup>25</sup>

#### **Interim (2022-2029) and Final Goals (2030)<sup>26</sup>**

	<b>CO<sub>2</sub> Rate (lbs/Net MWh)</b>	<b>CO<sub>2</sub> Emissions (short tons)</b>	
<b>2012 Historic*</b>	1,900	102,239,220	
<b>2020 Projections (without CPP)</b>	1,742	103,946,835	
	<b>Rate-based Goal</b>	<b>Mass-based Goal (annual average CO<sub>2</sub> emissions in short tons)</b>	<b>Mass Goal (Existing) &amp; New Source Complement</b>
<b>Interim Period 2022-2029</b>	1,383	82,526,513	83,476,510
<b>Interim Step 1 Period 2022-2024**</b>	1,501	88,512,513	88,902,150
<b>Interim Step 2 Period 2025-2027**</b>	1,353	80,704,944	82,020,069
<b>Interim Step 3</b>	1,252	76,280,168	77,522,714

24 Craig Butler, Ohio EPA Director, Testimony Before the U.S. House of Representatives, p. 2 Sept. 11, 2015.

25 Craig Butler, Ohio EPA Director, Testimony Before the U.S. House of Representatives, p. 2, Sept. 11, 2015,.

26 <http://www2.epa.gov/cleanpowerplanttoolbox/clean-power-plan-state-specific-fact-sheets>

<b>Period 2028-2029**</b>			
<b>Goal 2030 and Beyond</b>	1,190	73,769,806	74,607,975

\*US EPA made some targeted baseline adjustments at the state level to address commenter concerns about the representativeness of baseline-year data. These are highlighted in the CO<sub>2</sub> Emission Performance Rate and Goal Computation TSD.

\*\*Note that states may elect to set their own milestones for Interim Step Periods 1, 2, and 3 as long as they meet the interim and final goals articulated in the emission guidelines. In its state plan, the state must define its interim step milestones and demonstrate how it will achieve these milestones, as well as the interim goal and final goal. See section VIII.B of the final rule preamble for more information.

A summary of Ohio's targets and requirements can be found at:

<http://www2.epa.gov/cleanpowerplanttoolbox/clean-power-plan-state-specific-fact-sheets>

The final version of the proposed CPP also made energy efficiency optional, rather than a core requirement of the rule.<sup>27</sup>

The US EPA estimates that its proposed CPP will cost between \$5,100,000,000 and \$8,400,000,000 billion in 2030.<sup>28</sup>

<sup>27</sup> Craig Butler, Ohio EPA Director, Testimony Before the U.S. House of Representatives, p. 4, Sept. 11, 2015.

<sup>28</sup> U.S. EPA, Regulatory Impact Analysis for the Clean Power Plan Final Rule, August 2015, page ES-9.

### **Third Party Administrators**

Third party administrators are “organizations that partner with utilities to find potential qualifying energy efficiency work or projects that will assist a utility in meeting its statutory obligations. Such administrators are often trade associations who are able to help facilitate finding energy efficiency savings through their unique relationships with, and knowledge of, their members’ operations.”<sup>29</sup> In most ~~all~~ cases, third party administrators are afforded lump sum, periodic, or performance-based payments in exchange for their services. Instances vary case-by-case, but are often tied to performance. Performance is measured as a nominal amount for every kilowatt hour of ~~actual~~ realized energy savings.<sup>30</sup>

Performance payments to third party administrators are paid by the EDU, but those expenses are recovered directly from ratepayers.<sup>31</sup>

The PUCO submitted to the Study Committee the following list of third party administrators who have been previously paid by an EDU:<sup>32</sup>

#### **FirstEnergy Ohio**

Council of Small Enterprises (COSE)  
County Commissioners Association  
Industrial Energy Users-Ohio (IEU)  
Ohio Hospital Association (OHA)  
Ohio Manufacturers’ Association (OMA)  
Ohio Schools Council  
Roth Brothers  
The E Group  
Association of Independent Colleges and Universities (AICUO)

#### **AEP-Ohio**

Ohio Hospital Association (OHA)  
Ohio Manufacturers’ Association (OMA)

#### **Dayton Power and Light Company**

Ohio Hospital Association (OHA)  
Ohio Manufacturers’ Association (OMA)

#### **Duke**

29 Thomas W. Johnson, ~~Chairman of the PUCO~~PUCO Chairman, p. 2, Nov. 24, 2014.

30 Thomas W. Johnson, ~~Chairman of the PUCO~~PUCO Chairman, p. 3, Nov. 24, 2014.

31 Thomas W. Johnson, ~~Chairman of the PUCO~~PUCO Chairman, p. 3, Nov. 24, 2014.

32 Thomas W. Johnson, ~~Chairman of the PUCO~~PUCO Chairman, Exhibit E, Dec. 8, 2014.

Not applicable

PRELIMINARY

## IV. RECOMMENDATIONS

After an extensive and comprehensive review of the Mandates, including eight public Study Committee hearings, seventeen witnesses, additional written testimony separately submitted, and two onsite visits in Ohio, the Study Committee is pleased to present the following recommendations:

### **Recommendation #1**

#### ***Extend the SB310 Freeze Indefinitely***

The US EPA, by promulgation of the proposed CPP, seeks to change the energy landscape significantly across the United States. Each state, including Ohio, will be handed interim and final targets that dictate carbon dioxide emission levels. However, there are a number of outstanding questions about the CPP that the US EPA has yet to answer, in addition to federal court lawsuits that challenge the very foundation of the rule. Until the US EPA provides greater clarity on the operation of the CPP, and until litigation is resolved, the Study Committee feels compelled to extend Ohio's freeze of the Mandates.

First, there are significant legal questions as to whether the federal government has the right to govern state electricity policy. For this reason, in addition to a number of others, Ohio has joined in a lawsuit with 14 other states to argue that Congress did not intend to grant the US EPA authority under section 111(d), directly or indirectly, to remake the national power system.<sup>33</sup> Governor Kasich also recently submitted a letter to the President ~~of the United States~~ Barack Obama asking him to stay implementation of the rule until legal matters have been resolved.<sup>34</sup> Ohio Environmental Protection Agency (OEPA) Director Craig Butler also testified to Congress that "we are marching down the road toward implementing a rule with far-reaching economic consequences without any assurance that the rule is even a legal exercise of U.S. EPA's authority."<sup>35</sup>

Consequently, as long as legal questions remain pending, the General Assembly should refrain from allowing escalating costs to be paid by Ohio ratepayers in the form of increased Mandates or making any significant changes to the State of Ohio's energy policies without knowing whether the CPP will ever apply.

Second, freezing the Mandates indefinitely should provide the ~~Ohio Environmental Protection Agency ("OEPA")~~ maximum flexibility to recommend a State Implementation Program (SIP), at the appropriate time, as well as corresponding legislation targeted to meet that goal. Resumption of SB221 or any revised Mandates before resolution of the CPP could impede OEPA's flexibility. ~~—The PUCO estimated the proposed CPP would have cost \$2,500,000,000<sup>36</sup> (a cost analysis of the final CPP has not been provided by the PUCO).~~ Given the magnitude of the cost impacts to Ohio ratepayers, the General

33 Craig Butler, Ohio EPA Director, Testimony Before the U.S. House of Representatives, p. 3, Sept. 11, 2015.

34 Craig Butler, Ohio EPA Director, Testimony Before the U.S. House of Representatives, p. 3, Sept. 11, 2015.

35 Craig Butler, Ohio EPA Director, Testimony Before the U.S. House of Representatives, p. 3, Sept. 11, 2015.

Assembly does not wish to impede OEPA's flexibility by imposing any mandates at this time. Once there is 100% certainty the CPP becomes effective, any efficiency or renewable mandates should be imposed in a way to minimize the overall cost impact to the customers. ~~If the final CPP costs as much as what the PUCO concluded the proposed CPP would have cost (\$2,500,000,000<sup>37</sup>), the Study Committee does not want the OEPA to impose upon any Ohioan the requirement to pay for those costs unless there is 100% certainty the CPP will ever become effective.~~

Finally, many questions remain unresolved, including, but not limited, to the following questions posed by the ~~d~~Director of OEPA:

- How will advanced energy and qualifying technologies be determined?
- How will renewable energy credit be recognized from out-of-state sources?
- How will the demonstrated economic hardship aspects of Ohio's law be recognized by the US EPA?
- Will the US EPA allow credit for improvements already in place?
- Will Ohio's final targets be adjusted? If so, how?<sup>38</sup>

The ~~d~~Director also testified that:

"The most common question we are asked is whether the targets in SB\_221 or ~~SB31~~50 are enough for Ohio to meet the Clean Power Plan carbon dioxide reduction targets. I wish I could provide a clear answer to this Sub~~c~~ Committee. Unfortunately, that is not possible. Throughout our comment process U.S. EPA has provided little guidance or clarity. Rather, they have repeatedly asked for advice and a thorough critique of their proposal."<sup>39</sup>

"Ohio power plants have significantly reduced carbon dioxide emissions from electricity generation below 2005 emissions levels. In fact, carbon dioxide emissions have dropped from 138 million tons in 2013 to 107 million tons in 2015 and we expect an additional 33.8 million tons by 2016...<sup>40</sup> While the stated target of the CPP is to reduce CO2 emissions by 32% below 2005 levels by 2030, the USEPA is using 2012 as a baseline for CO2 emissions. Nothing done

36. Craig Butler, Ohio EPA Director, Testimony Before the U.S. House of Representatives, p. 2, Sept. 11, 2015.

37. ~~Craig Butler, Ohio EPA Director, Testimony Before the U.S. House of Representatives, p. 2, Sept. 11, 2015.~~

38. Craig Butler, Ohio EPA Director, p. 9, Feb. 5, 2015.

39. Craig Butler, Ohio EPA Director, p. 9, Feb. 5, 2015.

40. Dir. Butler mentioned while testifying that he had reversed the numbers. ~~T~~The numbers here reflect that correction while the online written testimony still contains the error. A fact sheet with the updated numbers can be found at: <http://epa.ohio.gov/dapc/111drule.aspx>.

It is unclear how significantly the mandates affected these reductions, as SB221 was enacted during the period in question.

to meet the energy mandates outlined in SB221 prior to 2012 will count towards CO2 emission reduction.”<sup>41</sup>

Based on all of these facts, it is evident to the Study Committee that an indefinite freeze of the Mandates is the best path forward for Ohio. Prematurely enacting legislation to comply with a federal rule that may never go into effect seems irrational and could saddle Ohio ratepayers with extraordinary and unnecessary costs. At this point, the Study Committee does not even have sufficient guidance to rely upon from the US EPA in determining whether any of the energy efficiency achieved in Ohio under Ohio law prior to 2012 will count towards the emissions reductions of the CPP.

While the General Assembly should extend the freeze of the Mandates, the Study Committee recognizes that the State of Ohio should simultaneously prepare for the possibility that the CPP may take effect in some form or fashion. Thus, the Study Committee recommends that the [Director](#) of the OEPA work closely with the General Assembly in determining how to proceed on the best path forward to resolving this open question.

## **Recommendation #2**

### ***Provide an Expedited Process at the PUCO for the Review of New Utility Plans for Energy Efficiency***

Whether the General Assembly allows the Mandates to resume at their current law rates or if an indefinite freeze is enacted, the General Assembly will need to address the issue of how to deal with the four EDUs’ existing 3-year energy efficiency portfolio plans,<sup>42</sup> all of which are set to expire on December 31, 2016. While interested parties should no doubt have the opportunity to be heard on any future portfolio plan applied for by an EDU, the Study Committee recommends that the General Assembly consult with the PUCO on how to develop an expedited review process that will enable all portfolio plans to go into effect by January 1, 2017.

Separately, beginning on January 1, 2017, all large industrial users are permitted to opt-out of the portfolio plan that is applicable to them by way of an expedited process at the PUCO.<sup>43</sup> The Study Committee strongly urges the General Assembly to maintain the current law opt-out mechanism. Many, if not all, of the large industrial users invest millions of dollars in energy efficiency projects at their facilities because those projects provide the individual company with a competitive advantage. Such investments should be encouraged, and providing these large users with the opportunity to opt out of a portfolio plan will help accomplish that. Similarly, the Study Committee recommends that the

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41 [Craig Butler, Ohio EPA Director, p. 6, Feb. 5, 2015.](#)

42 Pursuant to R.C. 4928.6610(C), a portfolio plan is a “comprehensive energy efficiency and peak-demand reduction program portfolio plan required under rules adopted by the public utilities commission and codified in Chapter 4901:1-39 of the Administrative Code or hereafter recodified or amended”.

43 See R.C. 4928.6610 through 4928.6616

General Assembly provide all mercantile customers, as defined in R.C. 4928.01, with the same opportunity to opt-out if they choose to do so beginning on January 1, 2019.

### **Recommendation #3**

#### ***Investigate and Ensure Maximum Credit for all of Ohio's Energy Initiatives***

Ohio has a robust and diverse set of energy assets. As policymakers, the General Assembly should remain diligent in ensuring that the State of Ohio counts all forms of emerging renewable resources, advanced energy, ~~and/or~~and energy efficiency initiatives that have been implemented to date across the state. To do this, the Study Committee specifically recommends:

- ~~Redefining “qualifying renewable energy resource” so that the term also includes an~~ Counting “advanced energy projects” and “advanced energy resources,” as those terms are respectively defined in R.C. 4928.01, ~~towards the 12.5% benchmark that EDUs and CRES suppliers currently must obtain by 2026.~~ Because wind and solar are intermittent renewable resources, PJM values their capacity contribution at 13% and 38%, respectively, of their nameplate capacity.<sup>44</sup> This means that of the 8,800 MW of wind resources that are expected to be in operation by 2017, these resources contribute only about 1,150 MW of capacity or reliability value.<sup>45</sup> As such, the State of Ohio should not rely exclusively on highly variable resources, but instead look to any and all sources of ~~renewable alternative~~ energy so that the State can count as many ~~renewables of those sources as possible that qualify.~~ One example would be to count combined heat and power (“CHP”) ~~to further incentivize its deployment.~~ A CHP system produces electricity and usable thermal energy using the same input fuel source.<sup>46</sup> At the beginning of September, the Study Committee visited Kent State University to visit a CHP facility. Current Ohio law allows CHP to be counted as energy efficiency, but it is treated as a renewable on a very limited basis.<sup>47</sup> The CHP Panel that testified before the Study Committee identified 147 potential CHP sites in Ohio, each about 5 MW~~w~~, for a total potential of 5951 MW~~w~~.<sup>48</sup> Benefits that this technology offers include: efficiency, reliability (and back-up capabilities), limiting grid congestion, reducing peak demand, and cost effectiveness.<sup>49</sup> Facilities

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44 Andrew Ott, PJM Interconnection, p. 4, March 5, 2015.

45 Andrew Ott, PJM Interconnection, p. 4, March 5, 2015.

46 CHP Coalition Presentation to the Energy Mandates Study Committee, slide 19 April 16, 2015.

47 CHP Coalition Letter, p. 1, Sept. 9, 2015.

48 CHP Coalition Presentation to the Energy Mandates Study Committee, slide 12, April 16, 2015.

49 Patrick Smith Testimony, IGS Generation, p. 1, April 16, 2015.

that utilize CHP for their own power use can save significant amounts on monthly electric bills.<sup>50</sup>

- Counting all energy efficiency projects that have been implemented in the State of Ohio to date since 2008. This will require substantially broadening the types of energy efficiency savings that count towards compliance with the energy efficiency and peak demand reduction mandates, as compared to how the current PUCO rules and practices, which need correction, currently operate. In order to count as many energy efficiency projects as possible, the General Assembly should work in coordination with the Ohio EPA and the PUCO to come up with a method for counting projects that have not historically been counted. It is likely that the most effective way to do this is for the General Assembly to work with the EDUs to develop a method for them to capture ~~third-party~~ energy efficiency projects that they previously could not, in order for those projects to be accounted for with the PUCO moving forward in the future.
- Investigating and maximizing extra credit for low-income and multi-family housing. The CPP grants states “extra credit” for low-income and multi-family housing efficiency programs. If the recently passed measure in the budget bill (HB64) that requires the Development Services Agency to separately bid out the PIPP load is successful, then the savings could be devoted to funding such a program.

#### **Recommendation #4**

##### ***Switch from Energy Mandates to Energy Incentives***

SB221 required EDUs to meet specific energy efficiency benchmarks that total over 22% of energy savings by 2025 and peak demand reduction benchmarks that result in a 7.75% reduction in demand by 2018. SB310 effectively extended the deadlines to 2027 and 2020, respectively.<sup>51</sup> If the PUCO determines that an EDU has failed to comply with the Mandates, the PUCO must assess a forfeiture on the EDU, ~~in the amount of up to \$10,000 per day per under-compliance or noncompliance, or in an amount equal to the market value of one REC per megawatt hour of under-compliance or noncompliance.~~ [CITE]

SB221 also included renewable benchmarks that require EDUs and CRES providers to provide, by 2025, 25% of their electricity supply from alternative energy. A specific portion of that amount would

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<sup>50</sup> Greg Collins Testimony, Energy Systems Group, p. 2, April 16, 2015. Greg Collins cites in his testimony a 30 MW project that ESG is working to secure. The project would generate approximately \$10 million in annual benefits to the company.

<sup>51</sup> SB310 gave utility companies the opportunity to choose to continue or modify their existing portfolio plans. If continued, the Mandates and deadlines from SB221 remained effective; however, if modified, the Mandates and deadlines from SB221 were extended ~~two~~2 years. FirstEnergy chose to modify its portfolio plan, so the 2-year extension applies to it. AEP Ohio, Duke Ohio and Dayton Power & Light chose to continue their plans, so the 2-year extension did not apply to any of them.

need to be from solar energy. SB310 placed a temporary ~~two~~2 year freeze on the above dates, and reduced the 25% benchmark to 12.5% by repealing the advanced energy component.

The Study Committee believes that continuation of the Mandates will be too costly for Ohioans, and that the penalties for not attaining the Mandates are overly punitive. However, the Study Committee does see great value in continuing with energy efficiency so that Ohio ratepayers will pay less for electricity and the State will use less electricity overall. Therefore, during a proposed indefinite freeze of the Mandates, as recommended above, the General Assembly should consider enacting legislation that would expressly allow EDUs to offer voluntary energy efficiency programs that operate to reduce Ohio ratepayers' electricity bills and overall electricity consumption in the State of Ohio. Companies should continue to be able to provide cost-effective programs to customers, with possible opportunities to share resulting savings. Voluntary programs of this nature have worked successfully in other states.

The Study Committee also offers the following suggestions on how to switch from a mandate driven state to an incentive-based, energy efficiency driven state:

- Allow EDUs and CRES providers who provide material financial assistance to persons wishing to build projects that can be net metered to negotiate a lower price at which to buy the net metered electricity product. (Current ~~law~~code requires payment at the higher standard service offer (SSO)-SSO prices.)
- Consider other constructs for EDUs to fairly participate in distributed generation opportunities.
- Expand the Property Assessed Clean Energy program whereby the capital costs of energy efficiency or renewable improvements can be financed through property tax assessments paid over a period of years. There is current legislation pending in both chambers on this topic (S~~enate Bill~~-185 and H~~ouse Bill~~-72 address this issue).
- Incentivize the use of smart thermostats in residential homes so that consumers can remotely control energy usage while they are away.

~~This could dovetail nicely with the smart meter program that several utilities have already undertaken.~~

- Investigate a ~~cap-and-trade type~~market-based certification instrument system for energy efficiency.

### **Recommendation #5**

#### ***Declare that the General Assembly Retains Statutory Authority with Respect to Energy Policy and Dispatch Protocols***

As stated previously, the General Assembly should have the freedom to independently make and determine the energy policy of this state. As such, the Study Committee urges the General Assembly to:

- Clarify that, regardless of the fate of the CPP, OEPA has no new state statutory authority, absent action by the General Assembly to:
  - require utilities to acquire renewable energy
  - require the achievement of specific energy efficiency goals
  - promulgate a state or regional cap and trade system
- Ensure that all state agencies will work in concert with the General Assembly before submitting a State Implementation Plan under the CPP

Finally, the General Assembly should continuously review the energy landscape in Ohio and once the final determinations have been made as to the applicability of the CPP, stand ready to restructure the Mandates as necessary.

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Senator Troy Balderson, co-chair

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Representative Kristina Roegner, co-chair

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Senator Cliff Hite

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Representative Ron Amstutz

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Senator Bill Seitz

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Representative Louis W. Blessing, III

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Senator Bob Peterson

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Representative Christina Hagan

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Senator Capri Cafaro

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Representative Jack Cera

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Senator Sandra Williams

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Representative Mike Stinziano