

**STATE OF MICHIGAN
MICHIGAN PUBLIC SERVICE COMMISSION**

In the matter, on the Commission’s own)
motion, to commence a collaborative to) Case No. U-20633
consider issues related to integrated)
resource and distribution plans.)

**JOINT COMMENTS ON THE MICHIGAN PUBLIC SERVICE
COMMISSION STAFF’S REPORT ENTITLED
“EMISSIONS REPORTING REQUIREMENTS FOR UTILITY IRPS”**

On December 15, 2020, the Staff of the Michigan Public Service Commission (“Staff”) filed its report entitled “Emissions Reporting Requirements for Utility IRPs.” Pursuant to the Michigan Public Service Commission’s (“Commission”) Order dated October 29, 2020, the following entities hereby submit their comments on Staff’s report: the Environmental Law & Policy Center, Natural Resources Defense Council, Sierra Club, Vote Solar, Union of Concerned Scientists, Ecology Center, and Michigan Environmental Council (“Joint Commenters”).

I. INTRODUCTION

Joint Commenters applaud Governor Whitmer’s actions joining Michigan to the U.S. Climate Alliance and establishing the MI Healthy Climate Plan’s bold and necessary goals for the state to reduce greenhouse gas emissions to 28% below 2005 levels by 2025 and to achieve carbon neutrality by 2050.¹ Joint Commenters also commend the Commission’s leadership to ensure that electric utilities’ integrated resource plans (“IRPs”) appropriately consider the MI Healthy Climate Plan’s statewide emission targets pursuant to the Commission’s authority to establish IRP modeling scenarios, sensitivities, and assumptions.²

¹ Executive Directive (ED) 2020-10.

² MCL 640.6t.

For the reasons explained below, Joint Commenters: (1) find reasonable Staff's bifurcation of its proposals for utilities filing integrated resource plans ("IRPs") in 2021 and those filing later; (2) urge adoption of a modified version of Staff's proposed Option 2 for near-term IRP filings; and (3) support Staff's recommendation for multi-state utilities with modifications.

II. NEAR-TERM AND LONG-TERM IRP FILINGS

Staff's report sets forth its recommendations for utilities that are filing IRPs prior to finalization of the upcoming update process to the Michigan Integrated Resource Planning Parameters ("MIRPP") and IRP filing requirements scheduled to occur in 2022 (i.e., "Near-term filings"). Staff does not, at this time, advance recommendations for utilities filing IRPs after the updates to the MIRPP and IRP filing requirements (i.e., "Long-term filings"). Staff states that "[o]pportunities to develop these additional proposals . . . will occur in later phases of the Advanced Planning Processes workgroup and are expected to be included in the May 27, 2021 Staff report to the Commission."³

While Joint Commenters do not disagree with this approach, we do note that we have prepared suggested edits to Section VIII (Modeling Scenarios, Sensitivities, and Assumptions) of the MIRPP that can be found in Appendix A.3.6 of Staff's report. Joint Commenters look forward to discussing those edits in the MI Power Grid workgroup leading into the MIRPP and IRP filing requirements update process.

III. PROPOSED OPTIONS FOR NEAR-TERM IRP FILINGS

Staff states that its "overarching recommendation is that all utilities filing a Near-term IRP model one scenario that achieves the goals of ED 2020-10."⁴ Staff then proposes two

³ Staff Report at 12.

⁴ Staff Report at 13.

options (referred to as “Option 1” and “Option 2”) for the Commission to consider in setting modeling requirements for utilities making near-term filings. However, for different reasons explained below, neither of the options as proposed by Staff achieve what its overarching recommendation seeks. Accordingly, Joint Commenters urge the Commission to reject Option 1 and adopt a modified version of Option 2.⁵

A. Option 1 Should Be Rejected.

In developing its proposed options for near-term IRP filings, Staff states that one of its “considerations hinged on the interpretation of compliance with ED 2020-10.”⁶ Specifically, whether utilities should be required to model reduction of their own emissions to meet MI Health Climate Plan targets or whether utilities should also be considering the effects of what will be required to meet the targets on an economy-wide basis.

The MI Healthy Climate Plan does not require each economic sector achieve a specific emission reduction target; rather, the goals are expressed on an economy-wide basis.⁷ Thus, Option 1’s requirement that utilities consider only their own emissions is inadequate. Option 1 does not reflect compliance with or achievement of the MI Healthy Climate Plan’s goals, as a 28% reduction below 2005 levels by 2025 in the power sector is significantly below what is necessary to achieve the economy-wide target. It only represents reduction achievement by a single sector (i.e., electric utilities). Analytical consensus and recent decarbonization studies provide evidence that the power sector has large cost-effective opportunities to move at a faster

⁵ Two of Joint Commenters’ proposed modifications to Option 2 should also be considered if the Commission decides to adopt Option 1. These include: (1) eliminating the 2% high load growth provision and (2) directing utilities to demonstrate a reasonable path to achieving zero carbon emissions (as opposed to carbon neutrality) by 2050.

⁶ Staff Report at 13.

⁷ Executive Directive 2020-10 (providing that “Michigan will aim to achieve economy-wide carbon neutrality no later than 2050” and “the state will aim to achieve a 28% reduction below 2005 levels in greenhouse gas emissions by 2025”).

pace than other sectors and must do so for the state to achieve both the 2025 and 2050 MI Healthy Climate Plan goals.⁸ The IRP planning process is intended to reflect a realistic future scenario, and is not limited to an accounting of known, concrete legal requirements. The upcoming IRPs represent an important opportunity for the Commission to review how utilities can meet customers' needs while also enabling the state to meet overall climate targets. The additional IRP scenario should reflect achievement of the MI Healthy Climate Plan's 2025 goal to provide the best information to the Commission for considering utilities' proposed courses of action. Because the proposed Option 1 does not do this, the Commission should reject it.

B. The Commission Should Adopt a Modified Version of Option 2.

Option 2 contains an increased interim goal for the electric sector of a 32% reduction in carbon emissions from 2005 levels by 2025. As pointed out by Staff, if utilities are "required to consider the impact of the entire economy on carbon emissions, the assumption of a slower decarbonization transition in other sectors, such as transportation and industrial sectors, necessitates the electric power sector exceed the interim goal for the purpose of making up for the underachievement in carbon emissions reductions in other sectors."⁹ Thus, in order to achieve a statewide emission reduction of 28% from 2005 levels by 2025, Staff states that it conducted an analysis leading it to select a 32% reduction from 2005 levels for the electric power sector, based on other sectors continuing to reduce carbon only at their historic rates.

While Joint Commentators agree with the general approach, the level identified by Staff is too low to achieve the MI Healthy Climate Plan's 2025 goal. As discussed below, Joint Commenters urge the Commission to adopt a modified version of Option 2 that would require

⁸ See, e.g., Princeton University, *The Net Zero America Project* (2020), available at: <https://acee.princeton.edu/rapidswitch/projects/net-zero-america-project/>.

⁹ Staff Report at 13.

utilities to model a hard cap on emissions representing a 36% reduction from their 2018 levels, or a 52% reduction from their 2005 levels.

Furthermore, the Joint Commenters have concerns about the method by which Staff proposes to incorporate the impacts of electrification in other sectors and request that Option 2 be modified to remove the 2% high load growth. Finally, Option 2 should be revised to require utilities to demonstrate a reasonable path to achieving zero carbon emissions (as opposed to carbon neutrality) by 2050.

1. Utilities should model a hard cap on carbon emissions representing a 36% reduction from 2018 levels, or 52% reduction from 2005 levels.

Staff states that it developed Option 2's interim goal of a 32% reduction from 2005 levels by 2025 by "accounting for the necessary carbon emissions reduction in the energy sector to achieve an economy-wide reduction in carbon emissions of 28% by 2025, assuming other sectors continue to reduce carbon at historical rates."¹⁰ Joint Commenters believe the structure of this approach is acceptable, but the calculated emission reduction amount from utilities of 32% from 2005 levels is far below what will be needed to realistically achieve an economy-wide emission reduction of 28% from 2005 levels. In addition, the 32% target is unlikely to be a binding goal for the utilities, considering that the state has already achieved a 28% reduction in power sector emissions in 2017, below 2005 levels. Accounting for the utilities' announced coal retirements and planned renewable additions, Michigan utilities will likely exceed the 32% target in business-as-usual mode.

According to modeling conducted by Joint Commenters, the power sector needs to be at around 37 million metric tons (MMT) of emissions in 2025 for the state to meet the MI Healthy Climate Plan's interim goal. That represents either a 51-52% reduction from 2005 levels or a

¹⁰ Staff Report at 13.

36% reduction from 2018 levels. In terms of total emissions reduction, these percentages are about the same, but they may produce very different assignments to individual utilities depending on the progress those utilities have made or not made toward cleaner energy resources between 2005 and 2018. By using 2018 as the base year, we have a much more recent snapshot to work from, and all utilities will need to take additional reduction measures.

What follows is a brief explanation of Joint Commenters' calculations leading to our recommendation that the power sector needs to reduce to 37 MMT in 2025, representing a 36% decrease from 2018 levels:

- Michigan's total energy and non-energy emissions in 2005 were 210.5 million metric tons (MMT).
- To achieve a 28% reduction by 2025, the state needs to be at 151.5 MMT of emissions occurring in that year.
- Michigan currently has about 19 MMT of non-energy emissions. If we assume that little to no non-energy emission reductions occur between now and 2025, which is consistent with recent trends, this means that energy-related emissions must not be more than 132.5 MMT in 2025.¹¹
- In 2017, total energy-related emissions were 152.7 MMT; thus, a reduction of 20.2 MMT is required between that 2017 amount and the 2025 goal of 132.5 MMT.
- If we further assume that the electric power sector makes up all or almost all of that 20.2 MMT reduction, given the larger cost-effective opportunities to reduce emissions compared to other sectors, the sector needs to reduce its 2017 emission level of 55.6 MMT to 35.4 MMT in 2025.¹²
- Reducing 55.6 MMT by 20.2 MMT represents a 36.33% reduction.

Staff posits that its analysis differed from Joint Commentators' in that Staff's assumed the non-power sectors continued to reduce carbon emissions at a rate similar to historical levels.

However, as can be seen in the chart provided on page 25 of Staff's report filing (Appendix

¹¹ Energy-related emissions include those from the electric power, transportation, industrial, commercial, and residential sectors.

¹² Adjustments between data sources, small changes not accounted for above, and changes between 2017 and 2018 account for the assertion that the power sector target for 2025 needs to be 37 MMT, rather than 35.4 MMT.

A.2.2 - Joint Commenters' Alternate Proposal), only the electric power sector's annual emissions have declined significantly since 2010. All other sectors have been flat or have increased. And, even though policies can be put in place now to stimulate emission reductions in non-electric power sectors, it will take time for the measures to produce results due to the long-lived nature and slow turnover for things such as electric appliances in buildings, electric vehicles, and other zero- and low-carbon equipment. While Joint Commenters did include a modest level of ramp-up in vehicle and building electrification in our carbon modeling,¹³ we do not see a basis for assuming non-electric power sectors will be in a position to measurably contribute toward meeting the MI Healthy Climate Plan's 2025 goal. By contrast, the power sector has clear, identifiable opportunities to achieve very significant cost-effective reductions by 2025, driven mainly by ever-cheaper renewable energy and battery storage.

Joint Commenters assert that Staff's proposed Option 2, as currently formulated, will be insufficient to put the state on a path to achieving what the Governor has directed through the MI Healthy Climate Plan and will likely mainly reflect a business-as-usual trajectory. A higher emission reduction level for the power sector must be selected if we are to have a modeling run that realistically achieves the Governor's directive. Integrated resource planning is intended to inform how current and potential requirements may affect utility decision-making. As the Michigan Department of Environment, Great Lakes & Energy (EGLE), with the advice of the state's new Council on Climate Solutions, formulates its action plan to implement the MI Healthy Climate Plan, it is possible or even likely that higher short-term contributions will be identified as needed from the electric power sector. Utilities should be planning for this potential

¹³ These included an assumption that 8% of vehicle sales are electric by 2025 (currently at about 0.8%) and 100% electrification of 1% of buildings.

outcome—and they and the Commission should apply their technical expertise and modeling capabilities to assist both EGLE and the Council in their important work.

2. The high load growth figure of 2% should be removed.

Both Option 1 and 2 include application of “a high load growth through the [IRP] study period of 2% annually, up from the required 1.5% sensitivity included in the MIRPP Environmental Policy Scenario.”¹⁴ Staff states this specific increase in annual load growth is intended to reflect an increase in load due to electrification. Joint Commenters agree that electrification of sectors such as transportation and buildings will be necessary to achieve the MI Healthy Climate Plan’s goal of net-zero emissions statewide by 2050; however, there is very little evidence from electrification trends that support load growth increasing an additional 0.5% over the next 4 years. The 2% approach recommended by Staff is too blunt of an instrument to incorporate the dynamic nature of electrification (or, “flexible demand”), fails to address how it is likely to affect load growth, and likely would produce misleading and negative ratepayer and grid impacts that are inconsistent with a well-leveraged and well-planned increase in the near term of behind-the-meter electric technologies.

For example, electrification of sectors such as transportation and buildings needs to be nearly complete by 2050 in order to achieve statewide carbon neutrality. To get there, we likely need to have all-electric equipment sales (vehicles, water heaters, etc.) by 2035, ramping up to that level from today to avoid significant stranded assets in 2050. Thus, rather than a flat annual bump-up in load growth, assumptions about future energy demands should be formulated

¹⁴ Staff Report at 14, 15.

through electric vehicle and electric heating appliance sales forecasts developed by utilities and reviewed by Staff and stakeholders.¹⁵

Additionally, electrification should include flexible load management benefits, such as measures to shape when vehicle charging occurs, demand management options for electric appliance loads in buildings, pairing of behind-the-meter technologies with times of the day when wind and solar are heavily-producing, and more. Indeed, Staff observed “that there are a multitude of variables to consider when evaluating the overall impact of electrification on load growth” and that “[s]ome stakeholders believe that the impact of electrification will result in significant load growth for the utility, while others view electrification as resulting in flat or declining load.”¹⁶

In sum, there are many nuances in assessing long-term electrification’s effect on load that are not captured in a flat annual load growth assumption. Accordingly, Joint Commenters believe the existing high load growth sensitivity is sufficient for Near-term filings and agree with Staff that “[f]uture MIRPP and filing requirement updates should include discussion about appropriate load forecast assumptions.”¹⁷ The Commission should delete the high load growth figure of 2% from Option 2 (and from Option 1 should the Commission decide to adopt it).

3. Utilities should demonstrate a 2050 pathway to zero emissions not carbon neutrality.

Both of Staff’s proposed options for Near-term filings state that utilities should “[d]emonstrate a reasonable path to achieving carbon neutrality in 2050 by continuing to reduce

¹⁵ Additionally, if the load growth assumption is changed, it makes it more difficult to do an “apples-to-apples” comparison between a base case and a high energy sector decarbonization scenario, the understanding of which is the goal of this additional modeling exercise. The costs and benefits of increased electrification can and should be evaluated and modeled separately. But for this exercise, and for the sake of comparison, it makes more sense to change fewer variables in order to better understand the impacts of the variables being evaluated.

¹⁶ Staff Report at 13.

¹⁷ Staff Report at 13-14.

carbon emissions through the end of the planning horizon.”¹⁸ Note that Staff does not recommend Near-term filings actually model out to the 2050 timeframe; rather, the additional IRP run would go through the 15-year planning horizon.¹⁹ Joint Commenters agree with this because cost information for carbon reductions past 2035 is highly uncertain and costs are likely to fall considerably as new technologies are developed and advanced. But, with respect to the “reasonable path” demonstration, Joint Commenters urge that this should be toward zero utility emissions rather than carbon neutrality by 2050 in Option 2 (and in Option 1 should the Commission choose to adopt it).

Joint Commentators view carbon neutrality as code for offsets, which the Commission should not consider as a strategy in evaluating utility carbon reduction efforts. Offsets can lead to concerns over inequitable environmental impacts. Additionally, as non-power sectors themselves decarbonize on a pathway toward net zero economy-wide emissions, offset opportunities from those sectors that may be available for earlier use by utilities will increasingly become unavailable. Meanwhile, to the extent carbon sequestration methods may be used to offset emissions, they should be reserved for sectors that will be far more challenging to decarbonize, such as agriculture or certain other industrial applications. The power sector does not fit that category as emission reduction strategies are known and achievable. To achieve statewide carbon neutrality, we need to reduce emissions from the power sector down to zero, as soon as possible, without reliance on offsets.

IV. MULTI-STATE UTILITIES

Joint Commenters support Staff’s recommendation that multi-state utilities filing IRPs before the next update to the MIRPP and IRP filing requirements perform an additional modeling

¹⁸ Staff report at 14, 15.

¹⁹ Staff Report at ii, n.6.

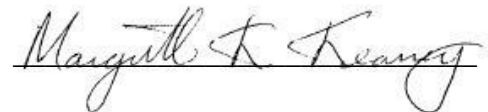
run showing how their Michigan service territories will meet carbon emission reduction goals. However, consistent with the discussion above, this additional run should include a hard cap on emissions representing a 36% emission reduction from 2018 levels by 2025, proportioned as suggested by Staff. The multi-state utilities should also demonstrate a reasonable path to achieving zero emissions (as opposed to carbon neutrality) by 2050 by continuing to reduce carbon emissions through the end of the planning horizon. If the Commission chooses to adopt Staff's alternative "flexibility" option for multi-state utilities, the demonstration provided by the utilities should reflect both of the elements just specified.

V. CONCLUSION

For the reasons stated above, Joint Commenters request that the Commission adopt a modified version of Staff's Option 2 that: (1) requires utilities to model a hard cap on emissions representing a 36% reduction from 2018 levels; (2) removes the 2% high load growth provision; and (3) requires utilities to demonstrate a reasonable path to achieving zero utility carbon emissions (as opposed to carbon neutrality) by 2050. Either of Staff's recommendations for multi-state utilities that may be approved should also be consistent with these modifications.

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Respectfully submitted,



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