MPG Advanced Planning – Integration of GD&T Planning Stakeholder Comments, 9/24/20 Meeting

ABATE, Oct 6th:

I. INTRODUCTION

On August 20, 2020 the Michigan Public Service Commission ("MPSC" or "Commission") issued and Order in this docket directing Commission Staff to hold a series of stakeholder sessions and to research best practices in a number of areas related to the integration of resource, transmission, and distribution planning. The first of these sessions was held on September 24, 2020, at which Staff solicited feedback regarding, among other things, additional areas within four main topic areas ((i) alignment of resource/distribution/transmission planning; (ii) forecasting; (iii) transmission planning; and (iv) valuing source diversity) that required clarification or elaboration. In a subsequent email regarding the stakeholder process on September 28, 2020, Staff also requested feedback on subtopics within these subjects that Staff did not mention which should be addressed during future meetings.

As an initial matter, two such topics are the use of cost-benefit analyses and the evaluation process that should be utilized as part of resource and distribution system planning. To the extent these planning efforts can be aligned, the process in place for reviewing asserted utility or customer needs and the options available to satisfy those needs should be aligned as well. Specifically, these stakeholder discussions should address the use of cost-benefit analyses and the methodology used to analyze utility resource and distribution system plans. The following provides greater detail regarding the recommended analyses and evaluation processes as well as the ways in which they would complement and augment additional issues and considerations to be addressed in this proceeding (e.g. valuing diversity).[1]

II. COMMENTS

A. This proceeding should address the use of cost-benefit analyses when comparing resource, distribution, and transmission alternatives.

As the Commission has noted in the utility distribution investment and maintenance plan context, utilities must "justify[] their investments, including consideration and quantification of costs and benefits relative to alternatives" in this area. *In the Matter on the Commission's Own Motion,* order of the Public Service Commission, entered August 8, 2020 (Case No. U-20147), p 46. Thus, in addition to the "specific BCA criteria that warrant additional input from stakeholders" which Staff included in its Final Report in Case No. U-20147 (see File No. 50 (April 1, 2020)), the Commission directed "the Staff to continue to work with utilities and other stakeholders in continuing to explore the appropriate framework for evaluating BCA," which "additional details" the Commission expected "to inform and be integrated into

[1] These Comments largely correspond to ABATE's September 11, 2019 and November 18, 2019 comments filed in Case No. U-20147, which comments are incorporated here by reference.

future utility distribution plans."[2] *Id.* As such, the use of cost-benefit analyses in resource and distribution system planning should be addressed in these stakeholder sessions.

In addition to the Commission and Staff statements on this issue as described here, appropriate cost-benefit analyses can establish the following: (i) comparability between investments and consistency between utilities; (ii) a fair hearing for utility-proposed investments; and (iii) customer protections against biased investment analyses. Further, these analyses can help ensure customers receive value from investments by, among other things; (i) estimating and documenting the actual costs customers will likely have to pay for the investment, including costs utilities typically ignore; (ii) identifying enabled capabilities and associated sources of benefit for customers; (iii) quantifying economic customer benefits by source; and (iv) establishing post-deployment performance expectations, and providing hints for possible remedies if expectations are not met.

Specific issues regarding the use of cost-benefit analyses in resource and distribution system planning which could be addressed in this proceeding include the following:

- The discounting of benefits delivered and costs incurred over the long term to express dollars in terms of present day valuation
- The appropriate discount rate to use (e.g. utility or customer) when calculating present value.
- The inclusion of carrying charges in the estimate of costs customers will be asked to pay (e.g. utility profits, taxes on profits, interest expense, property taxes, etc.)
- How to incorporate the cost of assets with book value retired prematurely to make way for modern versions in cost-benefit analyses.
- Accounting treatment for assets retired prematurely, including the following: (i) write off (i.e. utility eats costs); (ii) utility gets cost recovery, but no return on equity (i.e. both customers and utility eats costs); or (iii) utility gets cost recovery and return on equity grid (i.e. customer eats costs)
- Consistency between expected asset life for depreciation and cost-benefit analysis period.
- The valuation of reliability benefits or a determination of whether such benefits should be treated as a reduction in service interruption risk and evaluated using risk-informed decision support (see below).
- Whether or not and how to incorporate societal benefits and, if incorporating, how to value.

As the Commission and Staff (as well as numerous other parties) have noted in the above-referenced proceedings, the use of cost-benefit analyses to evaluate and justify utility resource and distribution system investments requires further development. These sessions offer an opportunity to explore that development and refine the manner in which potential investments are reviewed for their reasonableness and prudency. The use of cost-benefit analyses in resource and distribution system planning should therefore be addressed in these stakeholder sessions.

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[2] Staff explained the need for further cost-benefit analysis guidance in its Final Report in Case No. U-20147. (See File No. 50 (April 1, 2020), p 23.) In that Final Report Staff noted that in the distribution system planning context "current utility methods for analyzing benefits and costs have been critiqued as overly qualitative and opaque" and "[t]o proceed with grid modernization absent clear Commission guidance on BCA allows each utility to develop its own benefit cost evaluation methods, none of which currently are true BCAs;" thus, "[w]ithout the guidance of a cohesive regulatory perspective, Michigan's electric distribution utility system will develop in an ad hoc fashion."

B. This proceeding should address the use of Risk-Informed Decision Support ("RIDS") in analyzing resource and distribution system investments.

As the Commission and Staff have reiterated throughout the various MI Power Grid proceedings, the overarching core areas of emphasis include optimizing grid performance and investments by focusing on grid security and reliability. (See. e.g. Staff's September 24, 2020 presentation.) In the distribution system planning context, specifically, the Commission has sought to consider the related concepts of "reliability" and "resiliency," as well as cost effectiveness and affordability.[3] See *In the Matter of the Application of Consumers Energy Co*, order of the Public Service Commission, entered October 11, 2017 (Case No. U-17990), pp 10-12. In considering how to integrate resource and distribution system planning, this proceeding should consider how potential and proposed resource and distribution system investment plans are evaluated and reviewed.

Specifically, these stakeholder processes should consider utilizing the Risk-Informed Decision Support ("RIDS") process described in ABATE's September 11 and November 18, 2019 comments in Case No. U-20147 (File Nos. 37 and 43, respectively, incorporated herein by reference). This approach to capital budget development attempts to maximize risk reductions for the least amount of investment by optimizing project selection and overall capital budget size. RIDS is therefore ideally suited for resource and distribution system planning, as it provides an evaluation process for investments designed to reduce risk, which is a concept notoriously difficult to value. Despite this difficulty, RIDS provides for safety, reliability, and resilience risks to be evaluated in terms of likelihood and consequence and acted upon accordingly.

As such, RIDS aligns with the Staff's September 24, 2020 presentation regarding how to value diversity, particularly Staff's points that "[p]lacing monetary value on associated risk may be difficult" as "[s]ome variables in indices are subjective" and "[o]ptions are often prioritized based on desirable traits." Furthermore, while valuing diversity "[m]ay result in buildout that is not economically optimal," RIDS is uniquely and specifically developed to address this issue and its utility (along with the process for evaluating utility resource and distribution system investments generally) should be addressed in this proceeding.

III. CONCLUSION

Pursuant to Staff's solicitation of feedback and for the reasons set forth herein, ABATE recommends Staff incorporate the issues raised above into this stakeholder proceeding.

Soulardarity, Oct 6th

[3] The Commission here also noted that with regard to these latter concerns, it "expects up-front analyses to ensure investment strategies are reasonable and prudent, alternative are thoroughly considered, and longer-term operational savings from new investments can flow through to customers, thereby keeping rate affordable" and that a "data-driven, value-based approach, as when to repair versus when to replace aging equipment, will also assist in investment decisions" while "the ability to integrate new technologies in an optimal manner and provide planning tools and information to encourage efficient siting and operations of customer resource, such as DG or energy storage, may also help displace or defer costly grid improvements, rather than exacerbate loading conditions and cause additional grid upgrades." This again illustrates the importance of continuing the development of an adequate cost-benefit analysis framework described above.

We write on behalf of Highland Park-based Soulardarity, which intervenes frequently in DTE Electric's contested cases, and its Executive Director Jackson Koeppel, who testifies regularly in those proceedings.

To comply with the Commission's August 20, 2020 order in Case No. U-20633 that initiated this stakeholder process and with Governor Whitmer's Executive Order 2020-10, MPSC staff must include as part of this stakeholder process robust consideration and discussion of environmental justice and public health issues and include coordination with the Department of Environment, Great Lakes, and Energy (EGLE). According to the August 20, 2020 order of the MPSC in Case No. U-20633, MPSC staff has an obligation to "coordinate with EGLE on the inclusion of public health and environmental justice considerations in future integrated resource planning cases" and to "include a status update and any related recommendations [regarding those concerns] in the May 27, 2021 report outlined in this order."[4] As the Commission noted in that Order, future integrated resource plans (IRP) proceedings must include considerations of public health and environmental justice. In addition, this Workgroup has an obligation to develop procedures that help utilities progress toward Governor Whitmer's goals of reducing utility sector greenhouse gas emissions by 28% below 2005 levels by 2025 and of achieving carbon neutrality by 2050.[5] Systematic inclusion of environmental justice and public health considerations during Workgroup proceedings will help ensure that the Workgroup's final recommendations achieve the Governor's goals.

Soulardarity and other intervenors have repeatedly stated in proceedings before the MPSC that the Commission and Staff should systematically and robustly incorporate issues of environmental justice and public health into all utility planning and approval processes. For example, in DTE's 2018 IRP proceeding, Soulardarity noted that DTE's Community Impact planning principle did not assess the health impacts of fossil fuel generation which resulted in an underestimate of the negative effects of fossil fuel energy production on low-income, people-of-color communities, as well as an underestimate of the potential benefits that distributed and community renewable energy would provide to these communities.[6] Other intervenors in the IRP proceeding, namely Michigan Environmental Council, Natural Resources Defense Council and Sierra Club, submitted testimony which provided explicit costs to utilities and the public of ignoring public health and environmental justice concerns in IRP proceedings.[7] Public health and environmental justice advocates filed similar comments.[8] In DTE's 2020 rate case, Soulardarity

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[4] U-20633, Order Opening Docket, August 20, 2020, at 5.

[5] Mich. Exec. Order No. 2020-10 (Sep. 23, 2020).

[6] U-20471, Initial Brief of Soulardarity, October 29, 2019 at 29 – 30.

[7] U-20471, Initial Brief on Behalf of Michigan Environmental Council, Natural Resources Defense Council, and Sierra Club, October 29, 2019 at 191 (citing U-20471, Direct Testimony of George Thurston and U-20471, Direct Testimony of Kindra Weid).

[8] U-20471, Public Comments of Barbara A. Israel, DrPH, Department of Health Behavior and Health Education, University of Michigan School of Public Health; Michelle Martinez, MS, Michigan Environmental Justice Coalition; Angela G. Reyes, MPH, Detroit Hispanic Development Corporation; Kathryn Savoie, PhD, Ecology Center; Amy J. Schulz, PhD, Professor, Department of Health Behavior and Health Education; University of Michigan School of Public Health; Felix Valbuena, MD, Community Health and Social Services (CHASS); and Guy Williams, Detroiters Working for Environmental Justice, Docket No. U-20471-0723, February 19, 2020. See also Carina Gronlund et al., University of Michigan, Graham Sustainability Institute, Catalyst Grant Final Project Report, June 2020, http://graham.umich.edu/media/files/EmOpps-CW-19-Gronlund-Report-Final-Web.pdf (proving preliminary Health Impact Assessment findings for DTE's IRP); Laura Grier et al., University of Michigan School for Environment and Sustainability (SEAS) in Partnership with the Michigan Environmental Justice Coalition (MEJC), Assessing the State of Environmental Justice in Michigan, July 2019,

expressed concerns that DTE's proposed Fixed Bill Pilot would encourage greater energy use among high-income consumers, which would increase pollution from energy generation, ultimately harming low-income, people-of-color communities.[9] As an additional example, in DTE's 2020 Renewable Energy Plan (REP) case, Soulardarity argued that DTE failed to consider all of the benefits of community solar, including public health benefits, and thus improperly excluded community solar from its REP.[10]

Consistent with Soulardarity's recommendations, the Commission has stated that it will consider environmental justice and public health issues in future proceedings and, more specifically, has ordered this Workgroup to consider these issues and to develop recommendations addressing these issues. In its order recommending changes to DTE's filed IRP, the Commission stated that it "expects to coordinate with EGLE on the inclusion of public health and environmental justice considerations" in future IRP proceedings and that the Commission "anticipates additional guidance" regarding public health issues from the Michigan Advisory Council for Environmental Justice (MAC EJ).[11] In its order approving DTE's REP, the Commission stated that it will "monitor the progress of the [Third Party Community Energy Projects Workgroup] to ensure that options for community solar continue to be explored."[12] Finally, as has been stated, the Commission ordered this Workgroup to coordinate with EGLE on environmental justice and public health issues throughout the stakeholder process.[13] Given the Commission's requirement to include public health and environmental justice issues in utility proceedings, MPSC staff has a responsibility to incorporate these issues into this Workgroup's discussions.

In addition to the legal requirement to do so, this Workgroup should prioritize environmental justice and health equity concerns because discussion and analysis of many of the Workgroup's other planned topics including non-wire alternatives, forecasting of distributed generation, and development of diverse generation will be incomplete without the consideration of the impact those topics have on the health and economic well-being of low-income, people-of-color populations.

Staff should consider the needs of low-income, people-of-color communities when planning for non-wire alternatives. For example, energy waste reduction programs that improve home insulation and reduce energy costs have the potential to reduce the energy burden faced by low-income, people-of-color communities.

Additionally, Staff must account for the need to increase access for low-income, people-of-color communities to clean energy generation in its discussions of forecasting distributed generation. When planning for distributed generation, Staff should include consideration of widespread adoption of community solar given its potential to reduce harmful pollution and increase energy democracy within communities.

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https://seas.umich.edu/sites/all/files/Final-Draft-Executive-Summary.pdf; University of Michigan School for Environment and Sustainability, Screening Tool for Environmental Justice in Michigan, https://umich.maps.arcgis.com/apps/webappviewer/index.html?id=dc4f0647dda34959963488d3f519fd24.

[9] U-20561, Initial Brief of Soulardarity, January 14, 2020, at 23.

[10] U-18232, Initial Brief of Soulardarity, June 2, 2020, at 24.

[11] U-20471, Order, February 20, 2020, at 46 – 47.

[12] U-18232, Order, July 9, 2020, at 41.

[13] U-20633, Order Opening Docket, August 20, 2020, at 5.

The Workgroup must also consider environmental justice and health issues in its discussion of generation diversity. The Commission Staff's stated definition of diversity as variety, balance, and disparity fails to ensure that all income and race populations in Michigan have access to diverse electric generation, including distributed generation. Michigan's minority populations are heavily concentrated in Detroit and other urban areas. In addition, air pollution caused by some forms of electricity generation tends to disproportionately affect low-income, minority populations in urban areas. The Workgroup cannot simply consider whether Michigan utilities are increasing the number and spread of diverse generation facilities, although this is an important goal. It must also consider whether vulnerable populations that have experienced disproportionate exposure to the harmful effects of dirty energy generation are receiving equitable access to diverse generation. Staff should embrace a broader understanding of "diversity" in this context. For example, diversity should also consider different sizes (e.g., considering distributed generation and community solar along with utility-scale solar) and ownership structures (e.g., utility-owned, community-owned, and resident-owned). In the article cited in the Staff's presentation which defined diversity as variety, balance, and disparity, the author, Stirling, explicitly acknowledged that his definition of diversity cannot account for all aspects of a system. He wrote that "these other aspects may to some extent be independent from diversity but will also interlink in various ways" and that "any useful framework for analyzing diversity should ideally allow for ready articulation of these kinds of wider aspects."[14] As the Workgroup develops its definition of and criteria for generation diversity, it must consider other "aspects" such as the high concentration of low-income, people-of-color populations near dirty energy generation facilities. Even if one views the Commission as an economic regulator in the narrowest sense, ignoring public health and environmental justice concerns results in quantifiable economic costs to the public. The Commission and its Staff must account for these costs in order to protect fully the economic well-being of Michigan residents.

Despite the directive from the MPSC that this Workgroup must consider environmental justice and public health issues and despite the advantages that incorporating these issues into utility planning will have, including improving energy outcomes for all Michigan residents, MPSC Staff stated during the September 24 Stakeholder Session that EGLE would address environmental justice and public health rather than this Workgroup. This stance contravenes the August 20 MPSC order, which directs MPSC Staff to "coordinate with EGLE on the inclusion of public health and environmental justice considerations."[15] Workgroup participants can and should have the opportunity to work with MPSC Staff and EGLE on the development and incorporation of these considerations, just as they are working with MPSC Staff on the other topics covered in this stakeholder process. MPSC and EGLE staff must coordinate on the development of methods by which future planning processes address the critical issues of public health and environmental justice in order to develop a comprehensive and systematic approach to resolving these issues. In addition, given that the MPSC anticipates using input from the MAC EJ in future IRP proceedings,[16] this Workgroup should work directly with the Council regarding environmental justice and public health issues so as to better coordinate the overall effort to protect Michigan's low-income, people-of-color communities with regard to energy justice.

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[14] Andy Stirling, A General Framework for Analyzing Diversity in Science, Technology, and Society, 4(15) J. of the Royal Society 707, 711 (2007).

[15] *Id* (emphasis added).

[16] *See* U-20471, Order, February 20, 2020, at 47.

Based on the above information, Soulardarity recommends the following to the Advanced Planning Workgroup:

Staff should include specific opportunities for Stakeholders to comment about the environmental justice and public health implications of topics addressed by the Workgroup.

2. Staff should invite experts in environmental justice and public health to give presentations during Workgroup Stakeholder meetings.

3. Staff should solicit input from members of environmental justice communities on proposals that implicate environmental justice and public health.

4. Staff should work directly with the Michigan Advisory Council for Environmental Justice on developing recommendations for the May 2021 report. Avenues for collaboration include inviting members of the Council to give presentations during stakeholder meetings, ensuring that a Council member is able to be present and participate at all stakeholder meetings, allowing time for Council members to comment on draft Workgroup reports, and asking Council members to submit their own recommendations regarding Workgroup topics. Workgroup members should have the opportunity to engage with MACEJ directly as part of this process.

5. Both MPSC and EGLE staff should engage with Workgroup participants directly in order to develop recommendations on environmental justice and public health for the May 2021 report. As above, avenues for collaboration include inviting members of EGLE to give presentation during stakeholder meetings, ensuring that a member of EGLE is present and able to participate at all stakeholder meetings, allowing time for EGLE staff to comment on draft Workgroup reports, and asking EGLE staff to submit their own recommendations regarding Workgroup topics. Workgroup members should have the opportunity to engage with EGLE staff directly as part of this process.

6. Staff should provide sufficient time and opportunity for members of EGLE, MAC EJ, environmental justice communities, other stakeholders, and the general public to comment directly on a draft version of the final Workgroup report.

7. During the Workgroup proceedings, Staff should develop a set of factors related to environmental justice and public health by which the Commission will treat as determinative criteria for assessing utilities' IRPs. Factors should include: reducing pollution produced by fossil fuel generation that disproportionately affects low-income, people-of-color communities; increasing reliability and safety for customers who have been disproportionately harmed by downed or malfunctioning lines; increasing energy democracy, or the ability for individuals to exercise control over the source of their electricity; increasing energy affordability for low-income, people-of-color customers; and addressing the unique needs of low-income, people-of-color communities with respect to energy waste reduction and demand response programs. Staff must ensure that each factor includes quantifiable measures and that utilities address and account for these quantified factors in their IRPs, instead of using vague and poorly defined environmental justice and public health factors as utilities have done in past IRP proceedings.[17]

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[17] U-20471, Initial Brief of Soulardarity, October 29, 2019 at 24 – 42 (arguing that DTE provided incomplete and inadequate definitions of the planning principles (which included "Community Impact, Clean, Reliability, Flexible and Balanced, and Reasonable Risk") and did not justify the proposed flexible pathways with the

8. The Commission should conduct a Value of Solar proceeding. When conducting this stakeholder process, the Staff should address how and when the costs and benefits of distributed generation and community solar should be weighed in utility planning. As Soulardarity explained in depth in its briefing in DTE's 2020 REP case,[18] one means to ensure that the costs and benefits of distributed generation and community solar are fully and fairly weighed from the perspective of the people of Michigan – rather than the perspective of utilities and their shareholders – would be to conduct a Value of Solar proceeding as has been done in other states. Currently, Michigan utilities weigh the impacts of these resources in ways that disregards many of these resources' unique benefits and amplify without adequate analysis purported costs. Some of these unaccounted-for benefits include increased grid reliability and resiliency, energy waste reduction, and community engagement, topics directly relevant to the scope of this process as set by the Commission. Therefore, Staff should include in this process a structured consideration of whether and how to conduct a value-of-solar proceeding to determine how the actual benefits and value of distributed solar should be accounted for in future utility planning processes.

Thank you for the opportunity to submit these comments and for considering the important changes that we recommend. We look forward to participating in future stakeholder meetings of the Advanced Planning Workgroup.

ELPC/NRDC/Vote Solar/UoCS/Ecology Center/MEC - October 6th

On September 24, 2020, the Integration of Resource/Distribution/Transmission Planning workgroup held its first stakeholder session. At the conclusion of that session, the Staff of the Michigan Public Service Commission requested feedback on the following questions:

1. Are there additional areas within the four subjects introduced on 9/24/2020 that need additional clarification?
2. Are there subtopics within these subjects that Staff did not mention, and you would like to see addressed during future meetings?
3. Do you believe Staff adequately introduced the items addressed in the August 20, 2020 order in Case No. U-20633 during the 9/24/2020 meeting?

The Environmental Law & Policy Center, the Natural Resources Defense Council,

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planning principles sufficiently); see also U-20471, Reply Brief of Soulardarity, November 19, 2019 at 5 – 7, 18 – 19 (arguing that DTE did not account adequately for the public health impacts of its resource decisions and that DTE applied the planning principles in an unclear way).

[18] U-18323, Initial Brief of Soulardarity, June 2, 2020 at 29 – 30.

Vote Solar, the Union of Concerned Scientists, the Ecology Center, and the Michigan Environmental Council, (Joint Commenters) respond to Staff's request for feedback below, and address both the scope and outcomes of this workgroup.

Scope

IRP Modeling and Decarbonization

One of the key goals of this workgroup is to develop recommendations for changes and updates to the Michigan IRP Planning parameters (MIRPPP) that are scheduled to be updated in 2022. Moreover, Chairman Scripps has directed Staff to work with stakeholders to develop a proposal to incorporate the state's climate goals (as described in the MI Healthy Climate Plan and Executive Order 2020-182 and Executive Directive 2020-10) into 2021 IRP filings. In response, Staff has indicated that it will post a "Straw Proposal" on October 14, 2020 – and seek to refine and finalize that proposal by the end of the year.

While Joint Commenters look forward to reviewing and offering feedback on both Staff's Straw Proposal as well as this workgroup's broader effort to develop recommended changes to the MIRPPP, Joint Commenters offer two recommendations at this stage:

1. In evaluating IRP scenarios, the Commission should consider the carbon neutrality of the entire economy (including necessary electrification of transportation and building heat), and not just the carbon neutrality of power generation based on current electricity uses. Doing so will directly affect the mix of power generation (and power sector emissions); importantly, including transportation electrification may enable easier integration of high levels of renewable generation in the power sector.
2. The MI Healthy Climate Plan establishes a goal of statewide carbon neutrality by 2050, and Presidential candidate Joe Biden's platform is that the power sector be carbon neutral by 2035. The Commission should consider both scenarios (carbon neutrality in Michigan by 2050 and carbon-free electricity by 2035).

Transmission Alternatives Analysis

During the September 24 workshop, Staff presented on the topic of Transmission Planning for IRPs and noted that a goal of this workgroup is to "provide

recommendations that identify how an IRP filing should reasonably include transmission alternatives" (consistent with Ordering paragraph B in the August 20, 2020 Order). The utilities, however, did not address their transmission planning process during the September 24 workshop, instead focusing on the alignment of resource and distribution planning. Joint Commenters suggest that stakeholders would benefit from workgroup sessions focused on transmission alternatives (e.g., Grid Enhancing Technologies or GETs) and on transmission planning practices (e.g., the interaction between utility transmission planning at the state and regional system operator level, and how the Midcontinent Independent System Operator's (MISO) study on capacity import and export limits affects lower Michigan state transmission planning efforts) in order to develop recommendations satisfying Ordering paragraph B.

Distribution Planning

The August 20 Order directs Staff to research best practices in the alignment of distribution plans with IRPs, with a focus on two areas: (1) forecasting, and (2) the evaluation of non-wires alternatives (NWAs). Staff's presentation during the September 24 workshop focused on forecasting, and explained how distributed energy resource, electric vehicle, and load forecasts constitute a "hub" for both resource and distribution planning. Staff also suggested that forecasting would be a key area of focus for this workgroup. Joint Commenters support Staff's emphasis on forecasting practices in this workgroup.

The September 24 workshop did not cover NWAs in detail. Staff acknowledged that NWAs are within the scope of this working group but did not explain what this working group should aim to research, discuss, or accomplish on the topic of NWAs. Joint Commenters note that the Commission's August 20 order in U-20633, as well as its most recent order in the utilities' long-term distribution planning docket (U-20147), provide helpful guidance. Referring to the ongoing discussion on the topic of NWAs in the utilities' long-term distribution planning process (U-20147), the Commission noted in its August 20 Order that it "expects this planning workgroup to continue the discussion on how to identify and evaluate NWAs in the context of a more holistic planning approach." And in Case No. U-20147, in anticipation of the 2021 distribution plan filings, the Commission has directed utilities to:

• Make further progress on articulating decision criteria to screen projects for NWA analysis;

• Develop NWA pilots that expand beyond existing demand response and energy waste reduction programs;

• Present a robust suite of NWAs that may be evaluated for prudency as possible programs.

The Commission also directed Staff to "file a summary of findings and recommendations relating to methodologies or frameworks for evaluating NWAs on or before May 27, 2021" (U-20147, August 20 Order at 45).

Overall, Joint Commenters understand the Commission's expectation is that this workgroup should "build on" the stakeholders' efforts in the long-term distribution planning proceeding (U-20147). In light of the Commission's guidance, Joint Commenters recommend that:

(1) This working group include a stakeholder session dedicated to NWA screening and evaluation criteria;

(2) Following that session, Staff should elicit stakeholder input on methodologies or frameworks for evaluating NWAs; and

(3) Staff include, in its May 2021 report out of this working group, a robust set of findings and recommendations relating to methodologies or frameworks for evaluating NWAs (to comply with the Commission's Order in U-20147).

<u>Public Health and Environmental Justice Considerations in Future Utility Planning</u>

The August 20, 2020 order in U-20633 orders Commission Staff to coordinate with the Department of Environment, Great Lakes and Energy (EGLE) on the inclusion of public health and environmental justice considerations in future integrated resource planning cases. It also directs Staff to include a status update and any related recommendations in its May 27, 2021 report. During the September 24, 2020 workshop, Staff explained that it did not intend to hold stakeholder sessions on the inclusion of public health and environmental justice considerations in IRPs, instead interpreting the Order as directing Staff to coordinate with EGLE outside of this workgroup. Joint Commenters, however, recommend that this workgroup include a discussion of public health and environmental justice impacts from IRPs. Specifically, we believe it would be

productive for EGLE to explain the data it needs in order to complete a thorough assessment of public health and environmental justice impacts from IRPs (including impacts from proposed generation and continued operation of existing generation), and for Staff and stakeholders to help inform those inputs in a working group session. By initiating this discussion during the stakeholder sessions held as a part of this working group, EGLE could likely be better positioned to complete its assessments and develop advisory opinions regarding the IRPs to be filed in 2021.

Further, recognizing that the August 20 Order's discussion of public health and environmental justice refers broadly to "utility plans," (August 20 Order at 4) Joint Commenters recommend that this working group consider the public health and environmental justice implications of utility distribution planning—and not limit its scope to IRPs. In order to ensure that this discussion is robust, Joint Commenters recommend that Staff invite appropriate subject-matter experts and community representatives to present during the relevant working group session.

Outcomes

During the September 24 stakeholder workshop, Staff discussed two parallel timelines (each with its own set of outcomes):

A. The timeline for Staff to develop a proposal to incorporate Michigan's climate goals into 2021 IRP filings: Staff to post a Straw Proposal on October 14, and seek to finalize that proposal by December 2020;

B. The timeline for the broader set of discussions in this workgroup: Stakeholder sessions to proceed in Q4 2020 and Q1 2021, with Staff to file a final report by May 27, 2021, based on the discussions and findings in this working group. Consumers Energy and DTE will file distribution plans shortly thereafter, in Q3 2021, and Consumers Energy will file an IRP in June 2021.

Joint Commenters note a lack of clarity over how this working group should or will inform the utilities' 2021 filings (in particular, the utilities' 2021 distribution plans). Accordingly, Joint Commenters recommend that:

1. The utilities indicate internal deadlines for stakeholder input and Staff direction, such that they might meaningfully incorporate that input/direction into 2021 distribution plan filings;

2. Staff establish an interim deadline as necessary (prior to May 27, 2021) in order to provide the utilities' direction with respect to forecasting and NWA analysis in their 2021 distribution plan filings.

Conclusion

Michigan's effort to meaningfully integrate resource, transmission, and distribution planning is one of the first of its kind in the country. Joint Commenters commend the Commission for this ambitious and important undertaking. Joint Commenters also appreciate Staff's efforts to initiate a working group process that has the potential to re-orient utility planning in a manner that will help set Michigan on course to meet the carbon goals in Executive Order 2020-182 and Executive Directive 2020-10. Joint Commenters look forward to working with stakeholders and Staff over the course of this working group process.

Clean Grid Alliance, Oct 6th

To better integrate transmission planning with generation expansion and distribution system planning, MI GRID should discuss how to utilize the RTO's long-term transmission expansion planning processes to efficiently add new renewable resources needed to meet Governor Whitmer's carbon neutrality goal in 2050.

Unquestionably, more utility-scale wind, solar, and hybrid resources will need to be placed in-service over the next 30 years to attain Governor Whitmer's 2050 carbon reduction goals. Existing transmission lines will need to be expanded or re-conductored, and new transmission lines built to effectively deliver these new generation resources to customers. However, there is a disconnect between IRP's and RTO transmission planning. IRPs identify resource additions, but they do not identify the location of those new resources. And it takes anywhere from 5 to 12 years for a new transmission line to be planned and placed in-service. Michigan could close this disconnect by identifying renewable energy zones that could be used for siting new utility-scale renewable generating plants over the next 10 to 15 years. These zones would be selected based on the quality of Michigan's wind and solar resources and priorities (i.e., economic benefits to local areas in need of revenue, equity and diversity principles, and other key factors the state deems important, etc.). The renewable energy zones selected by Michigan would be inputs into the MISO and PJM transmission planning processes so the RTOs can plan sufficient transmission capacity to be in place by the time new resources are built. This ensures reliable delivery of, and minimal congestion for, power from new Michigan resources to Michigan's load centers. If the current processes continue or Michigan IRPs only identify near-term transmission needs, then transmission expansion, capacity, and reliability will lag behind the demands of a growing utility-scale

renewable energy queue and market. CGA would be happy to discuss this further with the PSC staff or present ideas in the stakeholder process.

City of Ann Arbor, Oct 7th

I am writing to provide feedback regarding the Integration of Resource/Distribution/Transmission Planning led by the MI Power Grid. The City of Ann Arbor believes it is very important to better integrate distribution planning within the IRP framework, for reasons including those described further in this letter.

As you may know, the City of Ann Arbor, along with Washtenaw County, has set ambitious goals related to clean energy and carbon neutrality. To achieve a just transition to community-wide carbon neutrality by the year 2030, we must take action now. That is why the City has implemented, has intiated, or is planning major activities related to installing local distributed generation, transitioning our public and private vehicles to electric, making massive improvements in energy efficiency, and pursuing a massive beneficial electrification program, starting in the residential sector. As we undertake this work, we are discovering numerous barriers – many of which could be addressed in the MI Power Grid process. More

specifically, other than the upfront costs and state legislation constraints, the capacity of current power generation, distribution, and transmission infrastructures are impeding the City from moving forward. The following is a list of bottlenecks we are facing today on EV adoption, deep electrification, and distributed generation.

- Load interconnect capacity constraints are limiting the number and location of EV charger infrastructure the City can build;
- Lack of knowledge on load capacity throughout the City is impeding our planning and our advertising of electrification initiatives;
- Distribution capacity constraints are restricting the amount of rooftop solar that could be installed on residential and business properties;
- The limited electricity generation and substation capacities are impeding large-scale electrification, especially among neighborhoods with high-density housing, although this is also true in areas where demand is high for things such as electric vehicles;
- Distribution grid integration issues are slowing the development of utility-scale solar projects at key sites, including at our local landfill where we have been working with our utility to explore a large-scale solar project;
- Voltage issues are directly limiting the efficiency of ground-source and air-source heat pumps as well as other larger electrical equipment;
- Lack of transparency related to hosting capacity, load capacity, and interconnection capacity is impeding our ability to do on-site solar projects, beneficial electrification, or promote the transition to electric vehicles.

The obstacles Ann Arbor is facing today are not unique. Other cities such as Grand Rapids are feeling the pain as well. To achieve a smooth transition to net-zero carbon emission by 2050 statewide, as recently stated by the Governor, we would recommend MI Power Grid consider the following elements for the integration of resource/distribution/transmission planning design.

First, we would recommend investigating the impact of deep electrification including appliance fuel-switch and EV penetration on our grid. In Ann Arbor, 70% of residential customers use natural gas as a major heating source. A largescale residential fuel-switch would add 60 to 80% electricity demand, double the residential peak load, and shift the peak hour from evening to morning in winter. If adding the rapid growth of EV ownerships, especially due to the availability of affordable long-range EVs, it could add another 30% to 50% electricity usage. Can our utilities distribution and transmission infrastructure handle the coming era of electrification? When and how should we upgrade the system capacity synergistically?

Secondly, we would recommend researching the impact of community solar, microgrid application, rooftop solar, and onsite battery storage on our grid infrastructure and Michigan ratepayers. In Ann Arbor, the total installed rooftop solar capacity reached 2.2 MW by 2019. In the past 10 years, the average annual residential solar capacity growth rate is 58%. Even in 2020, after DTE replaced net metering with inflow/outflow rates and the threats of COVID 19, the total installed capacity has already reached over 600 KW by the time I wrote this letter. Following this growth trajectory, the residential solar capacity in Ann Arbor could reach 80 MW by 2030. We should include the rapid growth of distributed energy into planning. Can our grid handle the intermittency of renewable energy? If we should upgrade the grid, how could we phase the whole system improvement investment efficiently and cost-effectively?

We also fully believe that utilities should follow the law and include distribution planning as part of the Integrated Resource Plan. Moreover, this planning should look system-wide to ensure that existing infrastructure is being utilized as effectively as possible before new infrastructure is planned. For example, Ann Arbor's electrical demand is set to increase as noted above. How does that compare with demand in Detroit? Are all the substations in Detroit needed or could those stations be moved to Ann Arbor? Before we invest in new infrastructure, a prudent business practice is to ensure we are

using our existing infrastructure as effectively as possible. As rate payers, we've already paid for this infrastructure. We are not interested in buying more of something when we already have sufficient capacity available today. Moreover, we need to understand our distribution system and where efficiencies are well before we make investments in new capacity. Other than the statewide planning analyses, we would recommend localized pilot projects to estimate the impact of electrification and a 100% clean grid. Those projects could be the test fields for the state-wide transformation to a clean energy future. The City of Ann Arbor would offer itself as one of the test sites for MI Power Grid to carry out pilot projects such as large-scale fuel-switching, community solar projects, microgrid initiatives, and other elements associated with carbon neutrality. We would like to provide our community as a test bed for how the entire state could develop a more efficient system and lower costs for customers, all while cleaning the electrical grid.

Lastly, we would recommend not only integrating the separate processes and studies currently conducted by our utilities, but also integrating the planning at the state level for the next 10 to 20 years. MI Power Grid should develop and keep current a methodology for forecasting the probable future growth of electricity usage, distribution, and transmission demand within Michigan, especially associated with distributed energy resources and reliability needs. The planning should provide projections from a statewide perspective and optimize investments considering cost, reliability, and risk. Given those bottlenecks we are facing today, we recommend MPSC develop scenarios to provide a more complete picture of deep electrification, growth of distributed generation, and a clean grid statewide.

Thank you in advance for receiving our thoughts. We look forward to being involved in this work going forward and ensuring Michigan IS the leader in the clean energy economy.

MEIBC/Advanced Energy Economy, Oct 9th

Introduction:

The Michigan Energy Innovation Business Council (Michigan EIBC) and Advanced Energy Economy (AEE) appreciate the opportunity to provide feedback in response to the Commission's September 28, 2020, email regarding the Integration of Resource/Distribution/Transmission Planning Workgroup of MI Power Grid. We applaud the Commission's continued attention to these important issues and view this topic as both timely and important given the ongoing rapid changes within the electricity sector. The growth of distributed energy resources (DERs)[19] and their ability to provide a range of grid services, including via non-wires alternatives projects (NWAs), has implications for the entire grid, and planning processes should reflect the flexible value of these resources. As DERs continue to rise, they may alleviate the need for new centralized generation and/or transmission but can also substitute in certain circumstances for traditional distribution system solutions. Planning processes at all levels should take into account DER growth and the resulting benefits to drive towards decisions that are optimal for the system as a whole. At the same time, integrated resource planning (IRP) across the country is increasingly showing that large-scale renewable energy and energy storage, especially when coupled with demand management options, can lower total costs for customers. Thus, now is an excellent time for the Commission to examine opportunities to improve the integration of planning, as envisioned in this Workgroup.

Below we provide answers to the three questions posed by the Commission in the above-referenced email.

Are there additional areas within the four subjects introduced on 9/24/2020 (Alignment of IRP/DP/TP, Forecasting, Transmission Planning, Valuing Generation Diversity) that need additional clarification?

- On September 17, 2020, FERC issued Order No. 2222, which allows DER aggregations to participate in wholesale markets, and directs the ISOs/RTO to develop rules to implement the order. This will likely impact DER penetration and associated utility planning efforts. We urge the Commission to examine these impacts as part of this proceeding. Order No. 2222

[19] We define distributed energy resources broadly to include energy efficiency, demand response, distributed generation of all types, energy storage, microgrids, and electric vehicles.

opens up a revenue stream for DERs, potentially driving investment and innovation in DER utilization. The evolving landscape will require utilities and regulators to plan for a system that relies more heavily on DERs and DER aggregations, with implications for planning at all levels.

Are there subtopics within these subjects that Staff did not mention, and you would like to see addressed during future meetings?

- IRPs are an integral part of helping utilities plan for customer needs. These plans should also aid utilities in "buy versus build decisions." Increasingly, service alternatives can replace traditional capital investments and customer-sited DERs can provide significant grid support services and value. However, utilities must be provided with the right financial incentives to appropriately consider alternatives to traditional capital investments in their IRPs. We encourage the Commission to examine financial incentives as a potential barrier to forward-looking resource planning. DER deployments along with service-based solutions do not have to be at odds with utility interests if the business case is aligned accordingly. This will encourage utilities to examine the full range of possible solutions across all their planning activities on a more level playing field.
- With respect to forecasting, we emphasize the importance of evaluating DERs as system resources and not simply modifiers to the load forecast. All DERs, including building electrification (such heat pumps connected to smart thermostats), should be forecasted and properly accounted for. A thorough representation and probabilistic forecasting of DERs should guide utility plans to ensure that there are no missed opportunities or increased costs for customers. We recommend that the Commission direct utilities to consider a range of DERs when planning, including dynamically managed distributed resources, whether sources of distributed generation, energy storage (including electric vehicles) or demand management. This will minimize the potential for unneeded investment in distribution system capacity while also identifying necessary investments to support this enhanced functionality from DERs.
- While distributed planning and IRP alignment is a necessary and positive step towards grid modernization, different considerations are needed for DERs in the two planning streams. A DER's unique abilities allow it to meet different needs within the two planning frameworks which could create challenges but also present opportunities to provide services. For example, within distribution planning, certain DERs can defer or avoid the need for specific upgrades to the system (e.g., as part of an NWA), whereas within IRP planning, DERs can provide system capacity (e.g., via a broader demand response program) and energy that affects the overall generation portfolio. Planning coordination may also identify potential operational restrictions and/or necessary investments that the utilities may require for aggregations of DER to participate in multiple markets or may suggest modifications that DER aggregators could make to mitigate identified problems.

Do you believe Staff adequately introduced the items addressed in the August 20, 2020 order in Case No. U-20633 during the 9/24/20 meeting? If not, please explain.

- Overall, we believe that Commission Staff did a good job at covering the range of topics included in the August 20, 2020, order in Case U-20633. One area that received mention, but not sufficient attention, was resiliency. We encourage the Commission to include sufficient focus on the value of resiliency, and the ability of DERs to enhance resiliency. Recent extreme weather events in Michigan paired with an aging infrastructure underscore the importance of resilience and the potential benefits these resources can provide. As stated by Staff at the September 24, 2020 meeting, diversity does not necessarily equal resiliency. However, these flexible resources undoubtedly provide resilience benefits and we encourage the Commission to pursue methods to determine the value of these benefits and continue to identify methodologies to ensure that the full potential of these resources is captured in planning processes.

Conclusion:

We appreciate the opportunity to provide the Commission with this feedback and look forward to our continued involvement in this workgroup.

Miscellaneous Questions:

Fang Wu (The City of Ann Arbor):

1. Q: Does study consider impact of deep electrification on the grid? i.e. conversion of gas heating to electric heating?

   A: Study will examine electrification of vehicles and other systems is considered as part of forecast for the study

2. Q: Does this forecasting study include all IRPs filed by MI utilities and explore for the optimal resource planning at the state level?

   A: Not doing a study ourselves, looking to instead provide best practices and recommendations for forecasting guidelines.

3. Q: Does MI conduct an independent statewide IRP analysis other than individual IRP done by utilities? Thank you. Is this kind of planning under consideration?

   A: No, currently no official channel for Staff to perform statewide IRP, rely on utilities to submit their individual plans. Some more informal looks involving MISO, but nothing on a formal basis.

Cathy Cole (MPSC Staff):

1. Suggest workgroup should weigh in on the extent that electrification should be considered as part of this study going forward.

Nikhil Vijaykar:

1. Q: EJ measures/factors, trying to understand how EJ considerations form a part of what this workgroup is tasked with in this workgroup? Is it included in discussions, part of report, etc.?

   A: Due to large number of topics to cover, and the focus of this group will not be on the EJ measures, considering that this work is going on concurrently, will take the results of that EJ measure to inform final report.

2. Q: Confused about how the forecasting discussion that's a part of this workgroup is going to inform the 2021 distribution plan filings from DTE & CE plans. From presentations, it appears that a lot of work needs to be done in order to integrate those processes with the larger planning process.

   A: This groups discussions and final recommendations will flow into Phase 3, eventually resulting in updates to the MIRPP (as stat. required). Our hope is that the utilities will take the findings from this workgroup and incorporate them as much as possible into current processes before a legislative requirement results from the MIRPP update. These plans would be filed before the official update to the MIRPP, so there won't be a formal requirement, just voluntary compliance form utilities.

3. Q: How does staff envision receiving stakeholder comments for this process over the course of the entire process. Are there deadlines to be aware of?

   A: Will be requesting feedback after every stakeholder meeting, providing opportunity for stakeholders to provide comments outside of these sessions.

Mark Templeton (Soulardarity):

1. Q: Why is Staff not including EJ discussions?

   A: Staff is following the Commission directive to both coordinate with EGLE as part of the EJ workgroup, but also cover the 4 topics that are required for this workgroup to consider from the Order. Still have ability to consider those further.

2. Q: Could you say a little bit more about exactly how DTE incorporates the 15 year weather data its modeling, e.g. at what level of detail? And does DTE consider the likely increasing temperatures over time due to climate change or just the rolling historical information?

   A: Look at the temp forecast using the rolling historical info at the service level.

3. Q: Similar to my question to DTE, can I&M say more about how I&M incorporates weather information (e.g. at what level and aspects of planning) and whether (and how, if yes) I&M considers likely rising temperatures due to climate change in its modeling?

   A: Yes to both questions. Within the last IRP, AEP used a 10-year weather normalization to forecast peak loads. Yes, I&M included a scenario, called the weather extreme forecast (IRP, p 32), based on a report developed by Purdue to develop load forecast. Did not model this forecast, since the extreme weather forecast load profile is well within the range of the high load forecast, so these results are in line with what would be expected of this scenarioe

Douglas Jester:

1. Q: I believe Commission also ordered to include VGP activities in load forecasts.

   A: Not specifically referenced, but inclusion of this is open for discussion.

2. If you don't have it, Staff should acquire and review "Bazilian, Morgan and Fabien Roques, Analytical methods for Energy Diversity and Security: Portfolio Optimizaiton in the Energy Secctor: A Tribute to Shimon Awerbuch."
3. A question for all of the utilities: societal changes resulting from COVID has the potential to change aggregate electricity demand but also to change the location of loads. How are you thinking about this in your forecasts and distribution system planning?

   CE response: As an aggregate, CE predicting that load levels will return to pre-COVID levels, which is in line with MISO projection. However, changing load characteristics will be reflected in load-level projections going forward, to the extent they're felt.

   DTE response: Similar to CMS, in the aggregate similar loads to pre-COVID levels in 2021, for distribution level, still determining the impact of any shifts in load. Will leverage AMI meters to get better granularity.

   I&M response: Believe that load will return to pre-COVID levels in 2022. Also believe there will be slower return in load for industrial, with residential and commercial loads returning sooner.

Rob Raffson:

1. Q: Does group plan on using the forecasting laid out in Consumers IRP (?) or starting from scratch?

   A: More of a general look at forecasting methodologies to set recommended guidance for future forecasting efforts, not specific to any previous forecast or utility.

Chris Villareal:

1. Q: Thoughts on use of AMI to assist in forecasting discussion?

   A: AMI data extremely valuable, it allows for more granular data to be utilized. Allows for hourly/sub-hourly forecasts, which seems to be where forecasting is moving in the future.

2. Q: Also how is this group considering NWAs as an outcome of forecasting?

   A: There is an overlap of all those things as part of Staff's consideration of forecasting methodologies etc.

Gary Melow:

1. Q: Sorry late in typing this in...On diversity, does Commission staff intent to consider externalities not inside the "energy box" such as resource management, price hedging against commodity fuels, and indirect economic impacts?

A: Gary, I think that Staff is open to those comments and discussing various methodologies. Some of these are also addressed currently within scenarios and sensitivities defined in the MIRPP. Comments about how to include such considerations in an IRP are welcome. We will also hear from a number of experts on the matter.

2. Q: Going forward are these meetings going to cover all 4 main topics, or have these broken out into more specific topic discussions?

   A: Our plan is for future meetings to be more topic specific, this first meeting was more general to give an introduction to each of the topics. Although, some of these topics have interplay that will result in discussions including multiple topics.

Valarie Brader:

1. Folks may want to look at the approach PJM took to evaluating different possible generation mixes for grid resilience. It is available at this link: https://www.eenews.net/assets/2017/03/31/document_ew_02.pdf

Laura Sherman (MEIBC):

1. Q: If the IRP and EDIIP will be filed at the same time, will those both be in August? Or is Consumers planning on filing their EDIIP early (in June, e.g.)?

   A: Still have not "nailed down" the exact timing of when these are filed, but the intent is to file both at the same time, in June.

Martin Kushler:

1. Q: Talk briefly about what you envision for stakeholder involvement in developing DTE's plan

   A: Plan on having stakeholder involvement, still determining the best avenue for that.

Rob Ozar:

1. Q: Is the fact that resource planning is very long term and distribution planning relatively short term a barrier to full integration of IRP and distribution planning goals?

   A: I&M: Histroically has been the case, looking to see how this changes w/ new developments

   CE: Is a barrier, timing of value stream for resources put on the Dist grid in IRP need to align with the timing of valuation in dist. plan so that this is fully captured.

   DTE: Barrier, need to align in order to have integrated planning