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October 28, 2020

ACEEE COMMENTS TO STAFF FOLLOWING THE OCTOBER 21, 2020 ADVANCED PLANNING MEETING

Comment on Feedback Requests

First, I would like to provide a response to one of the 3 "feedback requests" that Staff posted after the October 21st meeting.

[***Feedback Request:*** *What specific externalities do stakeholders think should be addressed that are not currently addressed in the Michigan Integrated Planning Parameters (MIRPP) document? What specific changes to the MIRPP would address these externalities?*]

In response, I would like to suggest that an additional "externality" factor that should be taken into consideration in the integrated resource/distribution/transmission planning process for Michigan utilities is **the extent to which any resource or system investment being considered helps protect Michigan by advancing Michigan's energy independence.** Michigan, like virtually every other state, has a policy preference for investments that advantage the Michigan economy. This is particularly an issue for utility companies, since Michigan is almost completely dependent upon fuels imported from other states and countries.

Specifically, Michigan imports 100% of the coal; 92% of the natural gas; and 97% of the oil and petroleum products it consumes from outside the state. Based on 2019 usage and cost data from the U.S. Energy Information Administration, those imported energy fuels resulted in a 'dollar drain' from the state of approximately 14 billion dollars per year. They also expose the state to the risk of fuel price volatility.

Certain types of resources (e.g., energy efficiency, demand response, in-state renewable energy) directly reduce that dollar drain for imported fuels (as well as supporting in-state labor). While I don't at this time have a specific proposal for quantifying this factor, it would seem that this advantage for Michigan citizens and the Michigan economy should somehow be reflected in planning analyses intended to identify a "preferred plan" for Michigan utility implementation. ACEEE would be happy to help develop an approach for recognizing this factor.

General Feedback on the October 21, 2020 Meeting

ACEEE found the meeting helpful, and appreciates Staff's efforts to involve stakeholders and the public in this advanced planning process. I have one specific bit of feedback from the meeting. In their presentation, EPRI had a slide (#28) that showed "Non-Wires Alternatives" with four categories: storage, solar, wind, and demand response. At the time I raised the question that "shouldn't energy efficiency be listed there as well?". The response from the two EPRI presenters was somewhat mixed. ACEEE notes that the Commission has previously agreed with Staff that NWAs should include consideration of energy efficiency (EWR) (Order U-20147, p. 41). It would be helpful if Staff clarified that NWA options do include energy efficiency; and at some point during this advanced planning process, develop procedures and rules for how utilities should explicitly involve energy efficiency (including extra targeted energy efficiency beyond broad EWR programs…per Order U-20147, p. 43) as one of the components to be considered in any NWA project.

Thank-you for the opportunity to comment.

Best Regards,

Martin Kushler, Ph.D.

Senior Fellow, ACEEE

10/28/2020

Comments of Consumers Energy Company
in the Integration of Resource/Distribution/Transmission Planning Workgroup
Session Two Feedback Request

Dear Ms. Rogers,

Thank you for the opportunity to provide comments on the feedback that Staff solicited during the second Integrated Planning stakeholder workgroup.

The Company would like to share the following considerations on Staff's questions:

What specific externalities do stakeholders think should be addressed that are not currently addressed in the Michigan Integrated Planning Parameters (MIRPP) documents? What specific changes to the MIRPP would address these externalities?

The Company recommends no changes to the MIRPP at this time.

In what ways could resiliency be addressed in an IRP?

It is key in the opinion of the Company to begin with a clear definition of "resiliency." There are different interpretations of and contexts for the term, and it will be important throughout the workgroup to identify a clear and shared definition.

Although there is currently no method for this, an IRP could address resilience by attaching some qualitative measure to a resource that would be offered during IRP modeling to optimize a resource mix. Distributed energy resources (DERs) could eventually be used to improve the resilience of the distribution grid, and an IRP could address this by integrating medium-term distribution planning that takes this into account. (Although in order to determine how a given DER could best promote resilience, their costs and operating parameters must be better defined.) To this end, the Company plans to deploy a battery storage project in 2022 that will test islanding capabilities that would support grid resilience (this was presented in the Company's 2020 electric rate case). Other storage pilots are ongoing to test capabilities that could ultimately support resilience.

Ultimately, a clear definition will be required to properly evaluate an IRP's impact on resiliency and make further recommendations. Until there is a clear definition and greater understanding of the value and use of DERs is available, resiliency could be qualitatively addressed in both electric and distribution planning processes.

What are appropriate ways to address the disconnect between resource needs in an IRP and future unknown resource locations? Are there studies that need to be performed, communication channels that need to be established, or other possible solutions?

An IRP identifies resource needs sufficiently far in advance to allow for distribution and interconnection planning processes to take place. An IRP identifies economic resources to meet long-term resource needs and generic assumptions are created to identify network upgrade and interconnection costs to capture the economics of generic locations. Where resources are or should be sited within a zone is dependent upon a large variety of variables, only one of which is the interconnection location.

Interconnection studies are completed by the distribution utility and/or the transmission provider to determine the necessary grid upgrades required for the location(s) selected by the interconnection applicant. A hosting capacity analysis (HCA) can provide some insight to possible resource locations on the electric distribution grid. The Company is developing its HCA capabilities in accordance with the Commission's August 20, 2020 Order in Case U-20147. Identification of interconnections on the transmission system would fall to the planning processes of the Independent System Operator, as supported by the local transmission owners. It should be recognized that studies identifying certain zones on both distribution and transmission systems run the risk of becoming stale and flagging locations that may no longer be optimal for generating resources by the time they are needed or planned. This could be caused by a new customer business or other changes to the distribution or transmission electric system.

Respectfully submitted,

Consumers Energy Company

DTE Electric feedback responses to stakeholder comments from 9/24/2020 the MI Power Grid Advanced Planning Collaborative (Due October 28th)

DTE Electric (DTE or Company) appreciates the effort of Michigan Public Service Commission Staff (Staff) and all parties involved in this Integration of Resources workgroup. Below DTE answers the questions posed by Staff resulting from the session held on September 24, 2020.

DTE reserves the right to take positions different from or in addition to those expressed in these answers throughout this process and in all future or existing cases.

Comment: Does the Commission Staff intend to consider externalities not inside the "energy box" such as resource management, price hedging against commodity fuels, and other indirect economic impacts when considering diversity?

Request: What specific externalities do stakeholders think should be addressed that are not currently addressed in the Michigan Integrated Planning Parameters (MIRPP) document. What specific changes to the MIRPP would address these externalities?

- DTE does not believe any additional externalities should be addressed in the MIRPP document

Comment: Insufficient attention was given to the concept of resiliency; specifically focusing on the value of resiliency to the grid, and the ability of DERs to enhance resiliency?

Request: In what ways could resiliency be addressed in an IRP?

- DTE has not specifically addressed resiliency in past IRP's although believes that resiliency could potentially be addressed qualitatively in a future IRP. Qualitative assessment could consider resiliency by evaluating the diversity of generation resources and their integration, and the extent that secure supply resources including fuel are present. This could be done after optimization modeling and incorporated into a risk assessment as was completed with the Company's last IRP.

Comment: Consideration of the use of renewable energy zones for siting new renewables to address disconnect between identification of resource needs in IRPs without identifying specific locations.

Request: What are appropriate ways to address the disconnect between resource needs in an IRP and future unknown resource locations? Are there studies that need to be performed, communication channels that need to be established, or other possible solutions?

- With respect to transmission analysis, DTE recognizes that the results of any grid study may depend wholly on the exact location of new generation resources. This is a shortcoming that cannot be easily addressed or overlooked. Rather than attempting to find the "right" answer, a better approach may be to define a few scenarios that could provide some perspective on the range of possible outcomes. For new renewables, the scenarios could be defined based on objective criteria like the current interconnection queue locations, MISO Futures assumptions, population density, and/or availability of non-forested land in the case of solar generation.
- In past IRPs, DTE has utilized a proxy price based on historical costs to address connection costs of generic alternatives modeled in the IRP. If a location was known, as in Blue Water Energy Center (case U-18419), then better cost estimates could be used based on the known location.

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October 28, 2020

Comment: Does the Commission Staff intend to consider externalities not inside the "energy box" such as resource management, price hedging against commodity fuels, and other indirect economic impacts when considering diversity?

Request: What specific externalities do stakeholders think should be addressed that are not currently addressed in the Michigan Integrated Planning Parameters (MIRPP) document. What specific changes to the MIRPP would address these externalities?

I&M Response: It is not clear what the "energy box" includes or the scope of the externalities being sought. The current requirements are adequate for I&M to develop a robust IRP because they already model a range of objective inputs that account for varying energy policies. Going beyond that is unwarranted, particularly for a multistate company like I&M.

Comment: Insufficient attention was given to the concept of resiliency; specifically focusing on the value of resiliency to the grid, and the ability of DERs to enhance resiliency?

Request: In what ways could resiliency be addressed in an IRP?

I&M Response: Resiliency is taken into account in the PJM capacity reliability planning process by establishing various resource capacity planning values and setting capacity reserve margins. In addition, the utility could discuss additional resiliency considerations when evaluating alternatives to develop its preferred resource plan.

Comment: Consideration of the use of renewable energy zones for siting new renewables to address disconnect between identification of resource needs in IRPs without identifying specific locations.

Request: What are appropriate ways to address the disconnect between resource needs in an IRP and future unknown resource locations? Are there studies that need to be performed, communication channels that need to be established, or other possible solutions?

I&M Response: Typically, for resource planning purposes, the actual resource location is not defined at the time the IRP is prepared. In many cases, detailed site selection or final RFP processes are not completed for months or even years after the IRP is submitted. In addition, for resources potentially interconnected to the utility's distribution system, the local feeder information or locations are also unknown at the time the IRP is prepared. This is not necessarily a "disconnect" because not every resource identified in an IRP is intended to be a definitive resource addition at a particular location. To the extent system constraints are the primary driver for the resource selection, this can be identified within the IRP.

BOUNDLESS ENERGY

From: Gary Melow, Michigan Biomass
To: Rogers, Danielle (LARA)
Subject: Question feedback 10/21 meeting Res/Dist/Transm planning workgroup
Date: Wednesday, October 28, 2020 4:23:13 PM
Attachments: image001.png
image002.png

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Danielle:

Following is a response for feedback from Michigan Biomass from the 10/21 meeting of Phase II - Integration of Resource/Distribution/Transmission Planning

….gary

> **Comment:** Does the Commission Staff intend to consider externalities not inside the "energy box" such as resource management, price hedging against commodity fuels, and other indirect economic impacts when considering diversity?
>
> **Request:** What specific externalities do stakeholders think should be addressed that are not currently addressed in the Michigan Integrated Planning Parameters (MIRPP) document. What specific changes to the MIRPP would address these externalities?
>
> **RESPONSE:** This question was posed in response to the Valuing Energy Diversity segment of the 9/24/20 meeting.
>
> In that presentation Zach Heidemann said there are a variety of factors that *could* be included in scoring criteria, models and methods used to determine the "value" of an energy resource. The various models also take different criteria into consideration. It will be Staff's job to select the criteria, model and methods to use, and that decision could significantly change how biomass power is valued or scored, depending on what attributes are recognized and quantified.
>
> For example, a one set of criteria or model could include the environmental benefits of biomass such as offsetting fossil fuel baseload generation, while another may look only at biomass stack emissions. Biomass power can demonstrate the benefits of its biogenic carbon life cycle analysis, but would that be acknowledged in the chosen model or criteria?
>
> The system benefits that biomass brings to the grid are well known, but there are ancillary, non-system, environmental impacts like materials management, enhanced forest carbon capture, and offsetting methane from decomposition that should come into play in making "no regrets" energy decisions, and the holistic energy decision making, which is what the IRP is intended to do.

Gary Melow, Director

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STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * * *

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

COMMENTS OF THE
ASSOCIATION OF BUSINESSES ADVOCATING TARIFF EQUITY

I. INTRODUCTION

In the Michigan Public Service Commission ("Commission") Staff's October 21, 2020 presentation in this workgroup proceeding it requested feedback regarding a number of issues, including the following: (i) addressing externalities in the Michigan Integrated Planning Parameters ("MIRPP"); (ii) ways to address resiliency in an integrated resource plan ("IRP"); and (iii) how to address the disconnect between resource needs in an IRP and future unknown resource locations. In addition to the comments provided on these issues below, it's important to note the role of competitive procurement in the integration of resource, distribution, and transmission planning, and to ensure it is not developed entirely separate from these planning processes.

Thus, considering the role of competitive procurement in this endeavor, Staff should ensure the efforts of the workgroup addressing competitive procurement (resultant from the Commission's August 20, 2020 Order in Case No. U-20852) and this workgroup inform each other. In other words, the competitive procurement workgroup should not simply examine the generation/resource portfolio as a silo. As the working group continues, resource planning improvement opportunities and critical issues being identified in this group should be considered. Whatever form competitive procurement eventually takes, it will deliver the greatest value for

customers when operated as a subset of an integrated generation/resource, distribution, and transmission planning process.

Further, in addition to the overlapping role of these processes, an integrated generation/resource, distribution, and transmission planning process, like a competitive procurement process, will work best when based on two fundamental principles: (i) using the power of markets to make choices whenever possible; and (ii) when not possible, using the power of risk quantification to optimize decisions. For markets to work, potential suppliers and consumers must have good price information. For risk quantification in non-competitive markets, transparency and stakeholder engagement are critical. These themes should be the foundational goals of the planning process developed here.

II. COMMENTS

A. What specific externalities do stakeholders think should be addressed that are not currently addressed in the Michigan Integrated Planning Parameters (MIRPP) document. What specific changes to the MIRPP would address these externalities?

1. Load forecasts must focus on anticipating falls in demand, rather than accommodating additional growth.

While the MIRPP recommends modeling assumptions and sources including considering behind-the meter generation and distributed resources, and notes that "[a]ssumptions and parameters other than costs . . . should be afforded flexibility due to those technologies' and options' presently unconventional nature," the extent and speed of customers adopting behind-the-meter generation should be reflected and addressed in load forecasts. As part of this analysis load forecasts should address the drivers (e.g., the cost of electric storage) and interplays (e.g., the cost of ng-fueled generation) that will influence the extent and speed of behind-the-meter generation adoption. A demonstration of how accurately previous IRP's have forecasted load growth should also be included. This approach must consider how 'bottoms up' load and distributed generation

forecasts (i.e., by circuit for distribution planning) reconcile with 'top down' load and distributed generation forecasts from IRPs.

2. Transmission planning should be seen as a source for alternative resources to obviate additional generation.

The MIRPP requires capacity import and export limits in IRP models resulting from the most current and planned transmission system topology and requires utilities consider including transmission assumptions in the IRP portfolio, such as the impact of transmission and non-transmission alternatives to the extent possible. In addition to these requirements, externalities outside the "energy box" which could represent diverse resources must include consideration of the extent to which increased transmission capacity can allow for alternative sources of energy to substitute for centralized generation. Such considerations should also address to what extent increased transmission capacity can serve to address other grid planning issues, such as renewable intermittency, decentralization, and resilience. Expanding the potential role of transmission capacity can further curb potential capital expenditures.

3. Resource planning should incorporate specific strategic opportunities to reduce costs.

As noted in the MIRPP, "[n]one of the scenarios, sensitivities or other modeling parameters included within this document should be construed as policy goals or even as likely predictions of the future" and "[i]nstead, the scenarios, sensitivities and modeling parameters are more aptly characterized as stressors utilized to test how different future resource plans perform relative to each other with respect to affordability, reliability, adaptability, and environmental stewardship." Further, the scenarios included in the MIRPP "will ensure that Michigan's electric utilities will consider a wide variety of resources such as renewable energy, demand response, energy waste reduction, storage, distributed generation technologies, voltage support solutions, and transmission and non-transmission alternatives, in addition to traditional fossil-fueled generation alternatives

for the future." In on other words, the MIRPP was developed to generally model, compare, and contrast various resource plans considering various resource portfolios and optimize generation portfolios given estimated needs, multiple goals, and various constraints.

While these models may anticipate, for instance, the loss of a certain generator or transmission line, that is only one type of risk analysis (specifically, operational). Resource planning should additionally consider more strategic types of risk, such as the ability of a transmission or distribution grid to accommodate potential increases in decentralized generation. Thus, while current resource planning continues to focus on centralized generation (for example, when a plant retirement is anticipated, the all-source procurement appears to continue to be focused on replacing it with other centralized generation), longitudinal modeling should be undertaken to consider opportunities to shift from centralized generation to decentralized resources, as well as the changes in transmission and distribution systems required to realize these opportunities.

The MIRPP should therefore reflect the opportunity to use modeling to identify generation, transmission, and distribution weaknesses under various transition rates from centralized generation to decentralized generation. Further, such models should then be used to quantify the probability of adverse outcomes, the size of the resulting impacts, and the potential of various solutions to resolve the weaknesses. As current distribution planning involves capacity planning engineers using just this type of logic to determine the best way to accommodate the load of, for example, a big new real estate development, a similar approach should be used for longitudinal, integrated generation, transmission, and distribution planning. In short, the MIRPP should require utilities address the opportunity to use modeling to optimize the relationship between generation, transmission, and distribution capabilities, capacity, and investment.

B. In what ways could resiliency be addressed in an IRP?

Addressing resiliency in an IRP first requires establishing the goals increased resiliency is designed to accomplish. For example, many would cite the avoidance of service interruptions to critical facilities as a primary goal, but most critical facilities already have a back-up service line from a secondary circuit or substation in the event its primary service line fails. In addition, most critical facilities maintain their own back-up generation and uninterruptible power supplies, meaning that all but the longest (e.g., multi-day) service interruptions ultimately have minimal impact for those facilities. Determining a manner in which to address "resiliency" in an IRP thus requires identifying resilience goals (and metrics by which to measure progress) before proceeding onto strategies (e.g., resource diversity) and tactics.

Once the goals, measures, and strategies have been established, potential solutions can be analyzed. To select optimal solutions, the pros and cons (i.e., costs and benefits) of each reasonable alternative must be considered, including the alternative of not acting at all. Data points required to conduct such analyses include the following: (i) the quantified risk (i.e., likelihood) of a particular adverse event; (ii) the quantified consequence (i.e., $ amount) of the particular adverse event; (iii) the cost of various solutions; and (iv) the effectiveness of various solutions (i.e., the risk, or likelihood, that a solution will be less than 100% effective). Only with all four data points can an optimum decision, informed by risk, be reached.

Thus, addressing and defining resiliency also requires determining its value. One way to value resiliency is to quantify the consequences (including opportunity costs) to a customer, class of customers, or community from a loss of service of various extent and duration. Since this value is so critical to decision-making, a study of economic consequences of various service loss extents and durations is called for. For instance, obviously the loss of a compressor station during a polar vortex is a serious event demanding serious examination and appropriate action. Determining the

appropriateness of various potential solutions, however, requires a quantification of the associated consequence (for example, the cost of rolling blackouts for a certain period of time for a certain number of customers). Such a metric will assist customers in evaluating whether certain potential solutions are excessively costly to eliminate or reduce the risk of an adverse event they may be willing to address or insure against in another manner.

The importance of properly quantifying resiliency goals and solutions stems from the fact that market participants, be they potential suppliers or potential buyers, respond to price signals. For an industrial customer to invest in self generation which could also improve reliability to near-by customers on a microgrid or take actions to improve power factor it will require a price signal. The same is true to provide a regulated utility with unregulated revenues or business model options, or to allow a customer to pay extra for various levels of reliability, and allow the utility to figure out the least costly ways to provide that level to that customer. Properly valuing and quantifying resiliency through established price signals is therefore a prerequisite to accomplishing resiliency goals or spurring associated action.

C. What are appropriate ways to address the disconnect between resource needs in an IRP and future unknown resource locations? Are there studies that need to be performed, communication channels that need to be established, or other possible solutions?

As noted above, a possible solution to this disconnect is proper price signals which will lead developers to specific resource locations (for example, for solar) in order to address resource needs. In other words, proper price signals will allow resource locations to match resources needs. As part of these price signals, initial costs include the cost of interconnection and the cost of land (or, alternatively, rooftop improvements or space lease fees), while ongoing costs could include a distributor's fee for delivering developers' products (i.e., electricity) to markets (i.e., customers).

Similarly, different resource locations offer different value propositions to utilities, assuming they are genuinely interested in avoiding or deferring an investment using a non-wires alternative, for example, which is discouraged by the current regulatory construct. For example, a solar field in one location might require investments to increase capacity, while a solar field with storage in another location might avoid or defer a substation upgrade. By providing pricing information by grid location, with prices modified to reflect accommodation costs (i.e., higher prices) or capital avoidance and deferral opportunities (i.e., lower prices), utilities can influence resource location.

For instance, and aligned with the examples discussed in this workgroup's October 21, 2020 session, California investor-owned utilities offer a clear step towards locational pricing information with their Integration Capacity Analysis ("ICA") and Locational Benefit Analysis ("LNBA") service area maps.[1] Developers can log on to see the maps, understand the likelihood of interconnection approval for various generation capacities in various locations, and get a relative indication of costs. Though the maps stop short of providing specific pricing by location, they are a step in the right direction. As such, they merit consideration in Michigan and could form the basis for eventual location-based pricing.

[1] See Pacific Gas & Electric's approach at https://wwwpgeqa.pge.com/en_US/for-our-business-partners/distribution-resource-planning/distribution-resource-planning-data-portal.page?ctx=large-business, and San Diego Gas & Electric's approach at https://www.sdge.com/more-information/customer-generation/enhanced-integration-capacity-analysis-ica. (Southern California Edison offers something similar -- its DER Information Map – though access is tightly controlled and the not described on the utility's website).

III. CONCLUSION

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

Respectfully submitted,

CLARK HILL PLC

Stephen A. Campbell

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Date: October 28, 2020

Ms. Danielle Rogers
Ms. Naomi Simpson
Michigan Public Service Commission
7109 W. Saginaw Hwy.
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October 28, 2020

Re: MPSC Staff Request for Feedback following October 21, 2020 Stakeholder Session in Integration of Resource/Distribution/Transmission Planning Working Group

Ms. Rogers, Ms. Simpson,

On October 21, 2020, the Integration of Resource/Distribution/Transmission Planning workgroup held its second stakeholder session. At the conclusion of that session, the Staff of the Michigan Public Service Commission requested feedback on four items.

The Environmental Law & Policy Center, the Natural Resources Defense Council, Vote Solar, the Union of Concerned Scientists, the Ecology Center, Sierra Club, and the Michigan Environmental Council (Joint Commenters) respond to Staff's request for feedback below.

1) **Feedback Received:** Does the Commission Staff intend to consider externalities not inside the "energy box" such as resource management, price hedging against commodity fuels, and other indirect economic impacts when considering diversity?

   Feedback Request: What specific externalities do stakeholders think should be addressed that are not currently addressed in the Michigan Integrated Planning Parameters (MIRPP) document? What specific changes to the MIRPP would address these externalities?

   Joint Commenters' Feedback: Externalities are costs caused by a utility's operations that are not paid for by the utility. For example, when a utility's operations emit greenhouse gases and other air pollutants, costs are incurred to society in such forms as increased climate change damages, public health impacts, and other negative environmental effects. Externalities such as these should be included in integrated resource plan (IRP) development and other

utility planning processes to compare the merits of different decision options. It is a positive step that the Department of Environment, Great Lakes and Energy (EGLE) will be preparing expanded public health and environmental justice analyses of IRPs. But those analyses are done *after* an IRP is filed. Requiring an upfront assessment of externalities (i.e., the costs of pollution absorbed by society) as part of IRP development by the utilities would provide better information as the Commission, stakeholders, and EGLE seek to respond to the utilities' evaluation of resources.

2) **Feedback Received:** Insufficient attention was given to the concept of resiliency; specifically focusing on the value of resiliency to the grid, and the ability of DERs to enhance resiliency.

   Feedback Request: In what ways could resiliency be addressed and modeled in an IRP?

   Joint Commenters' Feedback: An important first step is defining what is meant by the term resilience, which is different than reliability. For example, the National Renewable Energy Laboratory (NREL) defines resilience as "[t]he ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions through adaptable and holistic planning and technical solutions."[1] In other words, resilience can be understood as the ability to withstand and recover from shocks to the energy system.

   Assessing where these shocks could come from is an initial approach to addressing resilience in IRPs and other planning processes. For instance, climate change is bringing with it an increased frequency of extreme weather events, such as stronger storms and longer heat waves, and these impacts should be considered when planning for a resilient energy system.

   Risk reduction is another way that resilience can be addressed and quantified in an IRP. For example, distributed energy resources (DERs)—which include energy efficiency and demand response in addition to solar, wind, and battery storage—that are located closer to load reduce reliance on large, far away power plants and reduce the risk of system failure. This risk management benefit can be quantified and should be subtracted from the cost of DERs in resource planning. DERs provide benefits to the distribution system as well and represent a prime example of how resource and distribution planning can be merged and/or better coordinated.

[1] https://www.nrel.gov/resilience-planning-roadmap/

3) **Feedback Received:** Consideration of the use of renewable energy zones for siting new renewables to address disconnect between identification of resource needs in IRPs without identifying specific locations.

   Feedback Request: What are appropriate ways to address the disconnect between resource needs in an IRP and future unknown resource locations? Are there studies that need to be performed, communication channels that need to be established, or other possible solutions?

   Joint Commenters' Feedback: Wind energy resource zones were developed as part of implementing Michigan's 2008 energy legislation. In the current context, the state is looking toward a significant ramp-up in deployment of solar resources, which can be (and need to be) located in a wide variety of locations and settings—from utility-scale projects to community solar developments to placement on rooftops and individual properties. Siting considerations are of course important for any type of energy project, but what would be most helpful with respect to solar are hosting capacity studies by utilities. These studies help developers and other stakeholders identify where the current system is able to integrate solar projects now and which parts of the system need to be upgraded to allow for larger amounts of solar to connect.

4) **Feedback Request:** Is there any general feedback that you would like to share regarding the October 21 meeting?

   Joint Commenters' Feedback: We thank Staff for arranging several useful expert presentations and value all the contributions to the working group process. One presentation that stood out to us as particularly helpful is "The Importance of Aligning Planning Processes" by John Shenot of the Regulatory Assistance Project (RAP). Mr. Shenot's presentation raised many points worth revisiting throughout the workgroup process, such as the importance of aligning resource and distribution planning to properly value DERs as resources that support generation, distribution, and transmission needs. We also support Mr. Shenot's suggestion to examine how other states, such as Washington and Colorado, are approaching incorporation of clean energy goals in utility IRP filing requirements to further inform this working group.

   Additionally, with respect to learning from other states' efforts, the Institute for Policy Integrity published a report in April 2019 on how various states are incorporating a value for climate damages in their electricity policies that could be

helpful for the working group to consider—particularly with respect to the externality issue discussed above.[2]

Finally, we also thank Staff for its initial straw proposal on potential changes to IRP planning parameters and filing requirements so that the MI Healthy Climate Plan's emissions targets can be considered in utilities' IRPs. However, we do look forward to presenting additional considerations and proposal adjustments at the November 6 working group meeting that may help to better meet the MPSC's request.

Thank you for your consideration of these comments.

[2] https://policyintegrity.org/files/publications/Pricing_Climate_Impacts.pdf

Advanced Energy Economy
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October 29, 2020

Advanced Energy Economy (AEE) appreciates the opportunity to provide feedback in response to the Commission's questions regarding the Integration of Resource/Distribution/Transmission Planning Workgroup of MI Power Grid. We applaud Staff's continued attention to these important issues and offer brief feedback on two of the three questions presented at the October 21, 2020 stakeholder session.

In what ways could resiliency be addressed in an IRP?

While clearly an important topic within the context of planning in general, our view on resiliency is that it is currently best addressed as part of the utility distribution system plans. This would include the ability of DERs to enhance resiliency and reliability. In particular, identifying appropriate methodologies to calculate the resilience and reliability values of DERs is critical to ensuring that these resources are considered alongside traditional "poles and wires" investments.

At the September 18, 2019, stakeholder session on distribution systems planning, experts discussed reliability and resilience metrics, and reliability value-based planning. We believe that a continuation of this conversation with a focus on DERs would be a timely next step. This may not result in changes to the IRP planning parameters, however, it is directly related to one of the tasks for this workgroup - the evaluation of non-wires alternatives (NWAs) in distribution plans and IRPs.

Then, it would be appropriate to take the outcomes from distribution planning processes, such as forecasts of DER deployment, and use that to inform the IRP process. This would be an initial step that we think is consistent with the intent of the phase of this MI Power Grid workstream, which is to seek out greater opportunities for integrating planning activities.

What specific externalities do stakeholders think should be addressed that are not currently addressed in the Michigan Integrated Planning Parameters (MIRPP) document. What specific changes to the MIRPP would address these externalities?

While we do not have specific comments on this issue at this time, we believe that this is an opportune time to engage with stakeholders on this subject as part of the consideration of how to reflect the state's new climate goals into IRP guidelines and filings.