

Comments of DTE-Electric on the Staff Draft Report New Technology and Business Models Collaborative – October 4, 2021

DTE-Electric (DTE) would like to extend its appreciation for the efforts of the Michigan Public Service Commission Staff (Staff) and all parties involved in the New Technology and Business Models collaborative workgroup. Staff's efforts have brought forth a range of perspectives on an array of emerging topics in this area.

DTE appreciates the varying perspectives stakeholders have provided, which are reflected in the body of the draft report. However, DTE notes that many of the views offered by specific collaborative participants in this report are not reflective of aligned industry views and should not be construed as such. In the preface to each of the tables containing technology-specific barriers, the report includes a disclaimer stating that inclusion of items in the tables does not imply endorsement by Staff. DTE suggests that a similar disclaimer would be appropriate for the technology-specific sections more broadly to ensure the reader appropriately recognizes that there is a diversity of views on these topics.

For purposes of this feedback, DTE has focused on high-level themes and suggestions that Staff should consider as it crafts its final report. Much of this feedback focuses on the recommendations identified in the draft report. In addition, DTE has also provided an appendix with more detailed comments and corrections specific to the technologies explored in the collaborative based on an initial review of the draft report. Lack of feedback on a specific topic or statement should not be interpreted as DTE's endorsement or agreement.

DTE's high-level comments on the collaborative's draft report focus on the following areas:

- **Structural matters**, or comments on the overall structure of the report
- **Substantive matters**, or comments on the substance of select recommendations from the report
- **Process matters**, or comments on the process for developing select recommendations from the report and whether recommendations are appropriate at this point in time

Structural Matters

1. The review of Michigan's regulatory construct oversimplifies important considerations

In Sections 2.1.1 and 2.1.2, the draft report seeks to provide the reader with a basic orientation to the current state of electric utility regulation in Michigan with citations to a few key concepts and pieces of legislation. In that regard, it offers some perspective. However, Michigan's regulatory construct is far more complex than this narrative would suggest and rests on over a century of interrelated law and utility operations. As but one relatively recent example, PA 295 of 2008 and PA 341/342 of 2016 are not reflected in the regulatory construct overview (and are discussed only minimally elsewhere in the report), even though these were key pieces of legislation setting the stage for the adoption of new energy technologies in Michigan. Various topics elsewhere in the document also point to different laws, regulations, or court decisions in isolation from one another, but this discussion is absent from the broader context-setting at the outset of the draft report. Consideration of barriers absent linkages to

Michigan's broader regulatory context risks the identification of solutions and recommendations which are ultimately not aligned with the frameworks that exist in the state.

The draft report then states that "Many of the barriers that have been identified are in contrast to some preexisting understanding or actual written agreement about the existing regulatory construct". Additional clarity on which preexisting understandings or written agreements are being referred to would help connect this theme to the broader report. More broadly, technological advances cannot be evaluated in isolation from the full regulatory and legislative context in which they operate.

Overall, a clearer acknowledgement of the foundational regulatory realities in Michigan is essential for developing appropriate recommendations. **The final report should seek to equip the reader with appropriate expectations and recommendations grounded in the state's existing regulatory construct.**

2. The discussion of regulatory barriers at the outset of the report does not clearly tie to the report's recommendations

The background section of the draft report identifies and describes five specific barriers which may be impeding the adoption of new technologies in Michigan. However, it is not clear how the report's nine recommendations were developed or how they address the barriers previously identified in the report. As a result, it is unclear what issues within the scope of the collaborative these recommendations are seeking to address. It seems that some recommendations are too broad to directly address one or multiple barriers (e.g., benefit-cost analysis), and other recommendations seem to address unrelated topics not identified as barriers (e.g., expedited pilot review). **It would be helpful to readers if the final report included a more robust discussion of how barriers were identified, how recommendations were developed, and how the recommendations, either individually or as a whole, address the identified barriers.**

Substantive Matters

Rates must ultimately be cost-based, and the report's discussion and recommendations on ratemaking conflate prudence of investment recovery with the allocation and recovery of those costs.

It is important for the final report to recognize that establishing prudence of investment recovery, allocating the resulting costs to customers, and designing rates to recover the allocated costs are all distinct activities, and the Commission's discretion within these activities is similarly distinct. MCL 460.11 requires that "electric rates equal the cost of providing service to each customer class". As such, the Commission may only approve rates designed to recover the utility's cost to serve customers, and not those which seek to address externalities or other factors beyond the cost of service study. This nuance, as well as any other relevant bounds established by Michigan's energy laws, must underly any recommendations related to rates and ratemaking.

As such, DTE recommends that any recommendations related to rates and ratemaking properly recognize the discretion afforded to the Commission by the Legislature, including the requirement that customer rates equal the cost-to-serve. This theme cuts across several of the draft report's recommendations, as highlighted below:

- The recovery of investments must be based on the cost-to-serve. **The final report should clearly differentiate between prudency review, allocation of costs, and ratemaking and should articulate how the request for guidance on “just rates” (Recommendation #1) fits within the current bounds of the Commission’s jurisdiction for these different activities.**
- Consistent with the foregoing, under current law rates must be cost-based. In principle, good rate design should strive to be technology agnostic as rates paid by customers are aligned with their usage of the system, not the technologies that customers may or may not deploy. Rate design which reflects true economic signals and technology agnosticism should reduce or eliminate a need for adoption incentives. **The report’s recommendation on fuel agnostic incentives (Recommendation #6) should acknowledge the importance of good rate design in facilitating technology-agnostic technology deployment.**

Process Matters

1. The following recommendations require further clarification

The draft report makes several recommendations which require clarification, and DTE suggests additional discussion, or absent that, removal from the final report:

- DTE generally agrees that appropriate and well-defined analyses can be one useful tool in evaluating the effectiveness of any undertaking. However, the specific action sought by the recommendation to “establish baselines to support development of future regulatory innovations and the quantification of their impacts” (see Recommendation #3) is not clear. Moreover, there does not appear to be any other discussion in the body of the report to link this recommendation to the context of the collaborative. An alternative approach would be to define data needs in the context of a more specific proposal while acknowledging that not all impacts lend themselves to direct quantification. As such, **DTE suggests that the final report provide more clarity and specificity on what this recommendation seeks to achieve, or that the recommendation be removed.**
- DTE appreciates the draft report’s efforts to identify avenues for expedited pilot approval but finds that there are a few areas which may warrant more specific discussions or clarifications. For example, if a utility files a pilot proposal and does not receive a decision from the Commission after 45 days, it is not clear whether that would constitute rejection of the pilot proposal. It’s also unclear how an expedited pilot authorization would impact cost recovery, and it appears that a utility would still be exposed to the risk of disallowance, even if a pilot were initially authorized. Process details such as these warrant further focused discussion if an expedited pilot mechanism were to be pursued. **With respect to the details that the draft report has put forward on pilot eligibility criteria, DTE offers the following recommendations:**
 - *“Involve products or services beyond the sale of basic electric service” (see Recommendation #4) – DTE explores many pilots, some of which are related to rates and tariffs (for example, the Advanced Customer Pricing Pilot or SmartCurrents), which*

may be considered basic electric service. However, the definition of “basic electric service” is vague and the intent of excluding associated pilots is not clear. **DTE recommends that this criterion be removed or substantially clarified in such a way that it does not prohibit otherwise beneficial pilots.**

- *“Offer a comparable parallel third-party pilot, either separately or within the same pilot, where feasible” (see Recommendations #4 and #5)* – What constitutes a “third-party pilot” has not been defined and it is unclear what this criterion is intended to achieve or how it would be applied in the context of pilot approvals. This requirement also presumes that engaging a third-party is always a best approach for pilots, when the reality is more nuanced. There are some pilot contexts where a utility engaging a third party may be reasonable, such as engaging software or equipment vendors or other service providers to deliver certain assets or capabilities. There are other contexts where the role of a third party would not be applicable, such as testing new utility rate and pricing structures. And there may be yet other contexts where a third party could be engaged in parallel, but the presence of a third party is not central to the learnings the pilot is seeking to achieve, such as testing the system impact of a particular technology. Requiring parallel pilots wherever feasible may also be duplicative, resulting in higher costs to achieve the same learnings. **DTE recommends that consideration of pilots involving third party products or services (as well as any pilot more broadly) be evaluated within the specific context of the learnings that the pilot is seeking to achieve.**

2. The following recommendations are duplicative of guidance the Commission has already provided

The draft report offers several recommendations which seek to retrace the steps the Commission has already taken in addressing similar questions, resulting in recommendations that are duplicative of existing guidance:

- The Commission has already provided guidance in other contexts on factors for consideration in evaluating investments which encapsulate many, if not all, of the considerations identified in the report’s recommendations on “just” rates. For example, the Commission’s orders in U-20147 confirmed and defined the distribution planning objectives for customer needs under four categories: safety, reliability and resilience, cost-effectiveness/affordability, and accessibility. DTE has further supplemented this direction, adding clean and community focus to the planning objectives which span both its distribution and resource planning processes. **DTE recommends that the report’s recommendation on “just” rates (see Recommendation #1) leverage the guidance that the Commission has already provided, and that Michigan’s utilities are already following.**
- As noted previously, the Commission recently issued guidance on requirements for pilot plans and objective criteria in its 2/4/21 order in Case No. U-20645 (the Pilot Order). Many of the draft report’s proposed pilot criteria are duplicative of this guidance, and to the extent amended criteria are proposed they should be within the framework of the guidance from the Pilot Order

and not as an additional and standalone criteria. The proliferation of differing sources of requirements and expectations has the potential to introduce additional levels of confusion and administrative burden into the process of pilot approval, which runs counter to the objective of providing a flexible, streamlined process to facilitate innovation and learning. **The items below are examples of where proposed eligibility criteria for the expedited pilot review (see Recommendation #4) overlap with existing guidance:**

- *“Provide estimate of net present value with considerations like new revenue sources, cost savings, reduction in GHG, contributions to State policy and regulatory goals, etc.”* and *“Provide information on pertinent areas of interest noted by the adopted Objective Criteria for Pilot Review, including equity and environmental justice”* – **These criteria duplicate guidance that the Commission already provided in the Pilot Order and thus do not require replication here.** Specifically, pilots are already required to detail project costs, expected benefits, and public interest justification.
- *“Provide Commission, consumer advocate, and key stakeholders with reasonable data access”* – Utility data access is a complex topic and associated recommendations should be specifically constructed to address the various issues in play. However, the requirement for “reasonable” data access is undefined. Furthermore, the Commission’s guidance in the Pilot Order already requires that expected publicly available data related to that pilot be described as part the pilot stakeholder engagement plan. **As such, DTE recommends this requirement be removed from the proposed process described in the draft report given it has already been addressed in the Pilot Order.**
- *“Seek to leverage funding from alternative sources to minimize customer impact”* and *“Incorporate requirements for pilots involving non-local vendors and larger sole-sourced vendors to participate in cost sharing for the pilot”* – DTE always considers the impact to customers in any utility investment decision and leveraging alternative funding sources can be beneficial where available. However, requiring the solicitation of alternative funding, either from in-kind vendor contributions or outside sources, may be overly restrictive and commercially impractical, particularly in instances where no such funding is available, and may constrain the learnings and benefits that could be achieved. **Rather than making this a requirement, this could be captured within the broader consideration of pilot costs and benefits that the Commission described in the Pilot Order.**
- *“Incorporate participant customer surveys or measurement and verification evaluation to measure pilot progress against success criteria and metrics”* – **The Commission’s guidance in the Pilot Order already requires that pilots quantify the expected benefits and detail the evaluation criteria/methods used and thus requirements to that end do not require replication here.**

3. The following recommendations would be best addressed in other forums where the associated issues will be more fully discussed

In several places, the draft report notes that there are other collaboratives where various topics will be further discussed. Given the wide-ranging scope of the New Technologies and Business Models collaborative, below are the preferred approaches on the following topics:

- DTE notes that the Commission only recently issued guidance on requirements for pilot plans and objective criteria in its Pilot Order. The Order alludes to both the interim suitability of existing measures for quantifying costs and benefits as well as the context of broader discussions on benefit-cost analysis, stating:

The Commission also recognizes that there are ongoing conversations about the appropriate benefit/cost considerations, specifically in distribution planning, but concludes that it is reasonable, in the meantime, for utilities to provide their internal scorecard, evaluation process, performance measurements, and other measures that may serve as the basis for pursuing full deployment.

In its most recent order in its distribution planning docket (U-20147, dated 8/20/20), the Commission acknowledged Staff's recommendation to convene stakeholders on a benefit-cost analysis framework after distribution plans are filed in 2021, but refrained from committing to a timeline in order to evaluate priorities in light of other MI Power Grid activities. This (yet to be conducted) stakeholder process would be the appropriate forum for facilitating a more fulsome discussion of benefit-cost analysis and developing holistic recommendations.

Recommendations from this workgroup on benefit-cost analysis (such as Recommendation #2) would be premature given the recent guidance from the Commission on the interim suitability of existing measures for pilot evaluation as well as the Commission's expressed desire for more extensive stakeholder discussions on the topic.

- As a threshold matter, 3rd party access to utility data is a complex issue which entails consideration of customer privacy, commercial sensitivity, and infrastructure security, among other things. The draft report's recommendation on this topic is overly broad and lacks the specificity necessary to architect data sharing constructs which properly balance the issues in play. The draft report also notes that 3rd party access to utility data is within the scope of the MI Power Grid Customer Education and Participation workgroup and that a Staff report to the Commission is expected in February 2022. **DTE requests that recommendations on this topic (such as those contemplated under Recommendations #3 and #8) properly consider the full context surrounding this issue. DTE further notes that the Customer Education and Participation workgroup would be a more appropriate venue for this consideration.**

Appendix: Technology-Specific Corrections and Comments

The report's discussion of barriers to microgrids is overly broad

The subsection on barriers to microgrids states that “a microgrid may generate energy in one location to serve customers at a remote location” and suggests that existing rules defining customer premises are problematic for microgrid deployment. DTE notes that this description of a microgrid could just as easily be used to describe an electric utility as a whole, blurring the line between local resilience and the provision of distribution service. Furthermore, this description is inconsistent with industry-standard definitions of microgrids and could cause confusion, as a microgrid's main function is to balance supply and demand in the defined local area during islanding mode. **The report's discussion on microgrids should acknowledge the need for a clear delineation between local resilience and distribution service and refrain from articulating a definition of microgrids that straddles these distinct services.**

DTE recommends that the report's discussion on microgrid definitions closely align with generally accepted industry definitions, such as that captured in a recent report by NARUC titled “User Objectives and Design Approaches for Microgrids: Options for Delivering Reliability and Resilience, Clean Energy, Energy Savings, and Other Priorities”. NARUC's definition identifies four distinct components of a microgrid: loads, DERs, controls, and interconnection/point of common coupling. **NARUC's definition provides clearer bounds on what constitutes a microgrid and could serve as an appropriate starting point for any future discussions on microgrids.**

The modeling of the inflow/outflow billing mechanism is no more complicated than any other billing arrangements for distributed generation

DTE disagrees with the report's assertion that the inflow/outflow billing mechanism complicates the modeling of customer bill impacts from solar projects. Customers already have access to their consumption data, which they or a developer acting on their behalf could overlay with a wide range of publicly available resources on solar production to estimate inflows and outflows. **DTE recommends that the final report should either strike any statements to this effect as factually inaccurate or include an appropriate qualifier such as “some workgroup participants believe that...”.**

The report references the term “off-grid” in several places but does not provide a definition

The term “off-grid” could have a variety of meanings in different contexts. For example, a microgrid operating in island-mode or a customer experiencing a power outage could be considered “off-grid” for a finite duration. Alternatively, a premise that was never connected to a utility system could also be considered “off-grid”. **DTE suggests that additional specificity on this term would be helpful.**

The report's discussion on the interconnection of CHP projects cites long delays in the process without clearly articulating the reasons for delay

The draft report fails to provide a balanced perspective on the interconnection of CHP projects to the DTE system. In the case of the Aisin Micro CHP Project, the report omits the fact that the project was seeking to interconnect under a rider for which it did not qualify. The report also omits additional issues with this specific project. For example, the project did not initially have documentation explaining the interaction between the various interfacing technologies. The project also utilized a custom relaying scheme that had limited documentation on its operation or function. All of this is extremely uncommon for a residential project and these factors required additional review to ensure the safety of the distribution system. DTE provided a number of technical options to the customer initially on how to connect the system without creating tariff compliance issues and these were rejected. DTE has successfully interconnected numerous other CHP projects which did not present issues of non-compliance with utility tariffs or non-conformance to operating requirements and industry standards. **Taken in this fuller context, the report’s suggestion that “utility interconnection of CHP systems may present challenges” is an overgeneralization, and DTE recommends removal of the two examples citing DTE and the spotlight discussion from the final report.**

Electric vehicle charging infrastructure definitions need to be validated and updated

The draft report’s listing of charging infrastructure levels appears to be inaccurate in a few places:

- Level 2 Charging Station – DTE’s understanding is that the power threshold of 19.2 kW will apply to both residential and commercial chargers. This will facilitate the charging needs of new electric truck offerings entering the market.
- Direct Current Fast Charging (DCFC) Station – DTE’s understanding is that DC charging is typically 50 kW to 150 kW. Above 150 kW is considered extreme fast charging or sometimes DC Level 2 (typically for heavy duty buses or trucks).

DTE recommends that the final report validate its discussion of electric vehicle charging infrastructure against the latest industry definitions and ensure consistency with those definitions.

The case study on the Veridian development may need to be validated and updated

Based on DTE’s involvement in supporting the Veridian development, there are a few details in the case study that appear to be inaccurate. DTE has provided suggested updates below:

- The price point for residents will vary from the high-\$100k range to mid-\$800k range.
- THRIVE Collaborative only develops the market rate portion of the Veridian community, not the affordable housing.
- The case study should also include Wayne State University in the DOE grant partnership.
- The second to last sentence should read “If awarded, DTE-Electric will install battery storage, demand response, controls, protection and other necessary infrastructure for the microgrid”.

DTE recommends that Staff incorporate these updates (some of which may need to be validated with THRIVE Collaborative).