



October 26, 2021

COUNCIL ON CLIMATE SOLUTIONS

Council Discussion:
Recommendations of the Energy Production, Transmission, Distribution
and Storage Workgroup

Agenda

- 3 p.m. – Welcome, Attendance, Business
- 3:15 p.m. – Overview by Workgroup Co-Chairs
- 3:25 p.m. – Introduction to Discussion by GPI
- 3:30 p.m. – Council Discussion of Recommendations
- 4:55 p.m. – Next Steps
- 5 p.m. – Adjournment

Overview by Workgroup Co-Chairs

Douglas Jester
Katherine Peretick

*Energy Production, Transmission, Distribution,
and Storage Workgroup*



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Council on Climate Solutions

Energy Production, Transmission, Distribution, and
Storage Workgroup

Co-Chairs Energy Production Transmission Distribution and Storage Workgroup

Katherine Peretick
Commissioner
Michigan Public
Service Commission
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Douglas Jester
Managing Partner
5 Lakes Energy
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Planning Team

Jill Rusnak and Sarah Mullkoff, MPSC and Trevor Drake, GPI

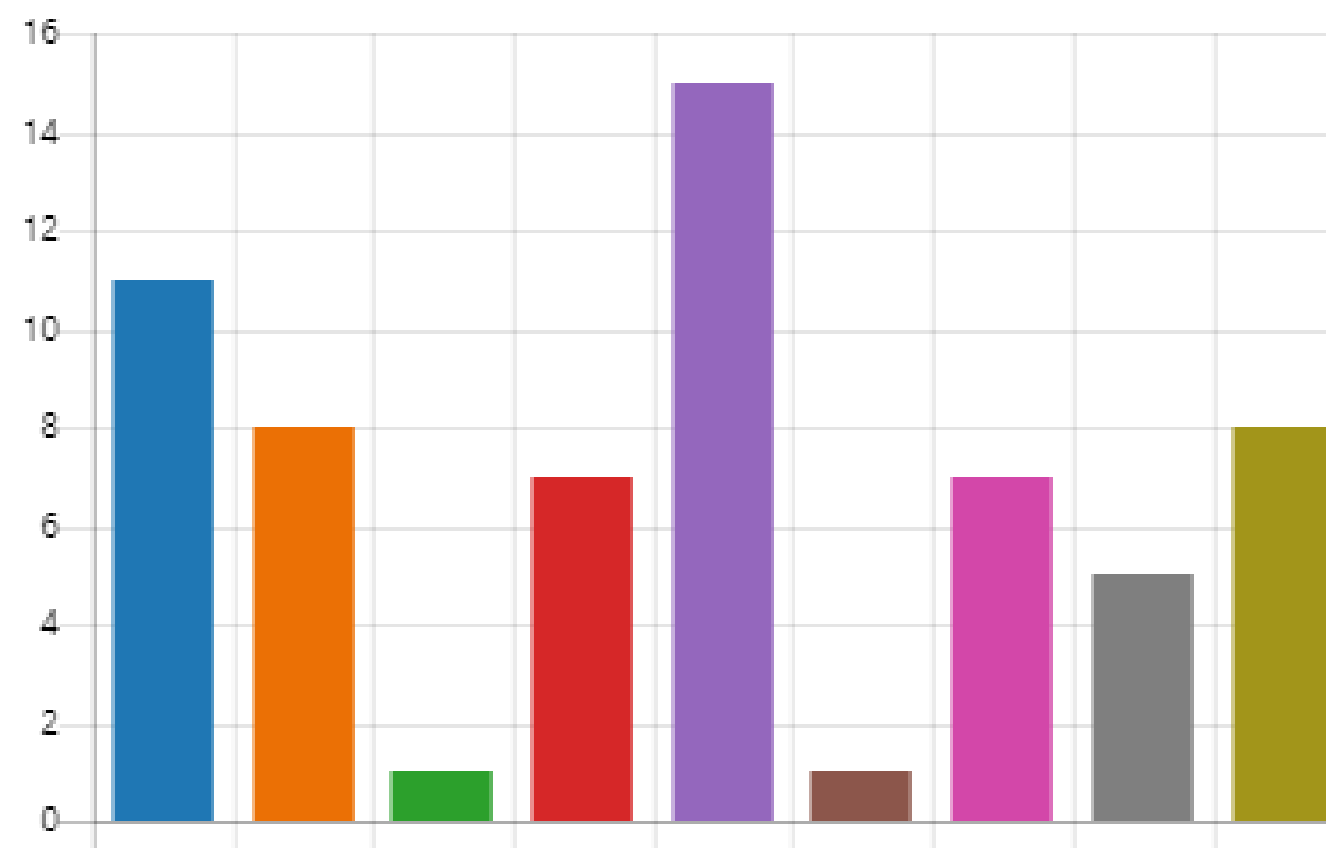
Scope of Work and our Roles

- Recommendations reflect the output of a robust stakeholder process
- Consensus of workgroup members was not required, but **all** suggestions were considered and documented
- Co-chairs & planning team were facilitators and not authors of recommendations (no endorsement implied)

Workgroup Overview

- 150 total workgroup participants
- Averaged 85+ active participants in each meeting
- 8 subgroups with 10+ participants actively deliberating & developing recommendations
- 73 individual recommendations informed our 5 overall

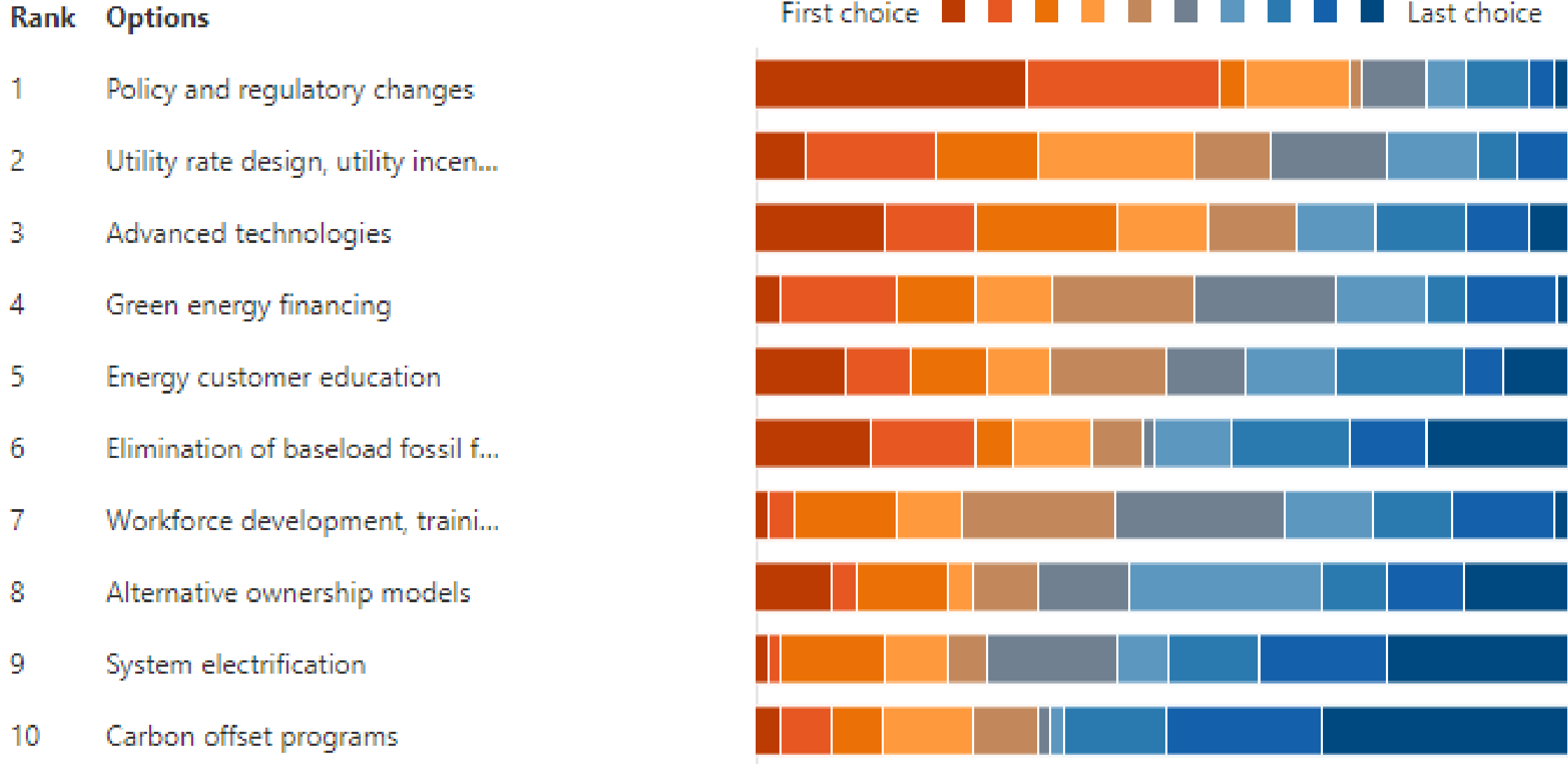
● Government Affairs	11
● Energy Technology or Project ...	8
● Academic/Researcher	1
● Energy Consultant	7
● Utility Representative	15
● Regulator	1
● Non-profit/NGO	7
● Non-Energy Private Company	5
● Other	8



Workgroup Overview

4. Please list in in order of importance how you think Michigan can reach its decarbonization goals in relation to this workgroup:

[More Details](#)

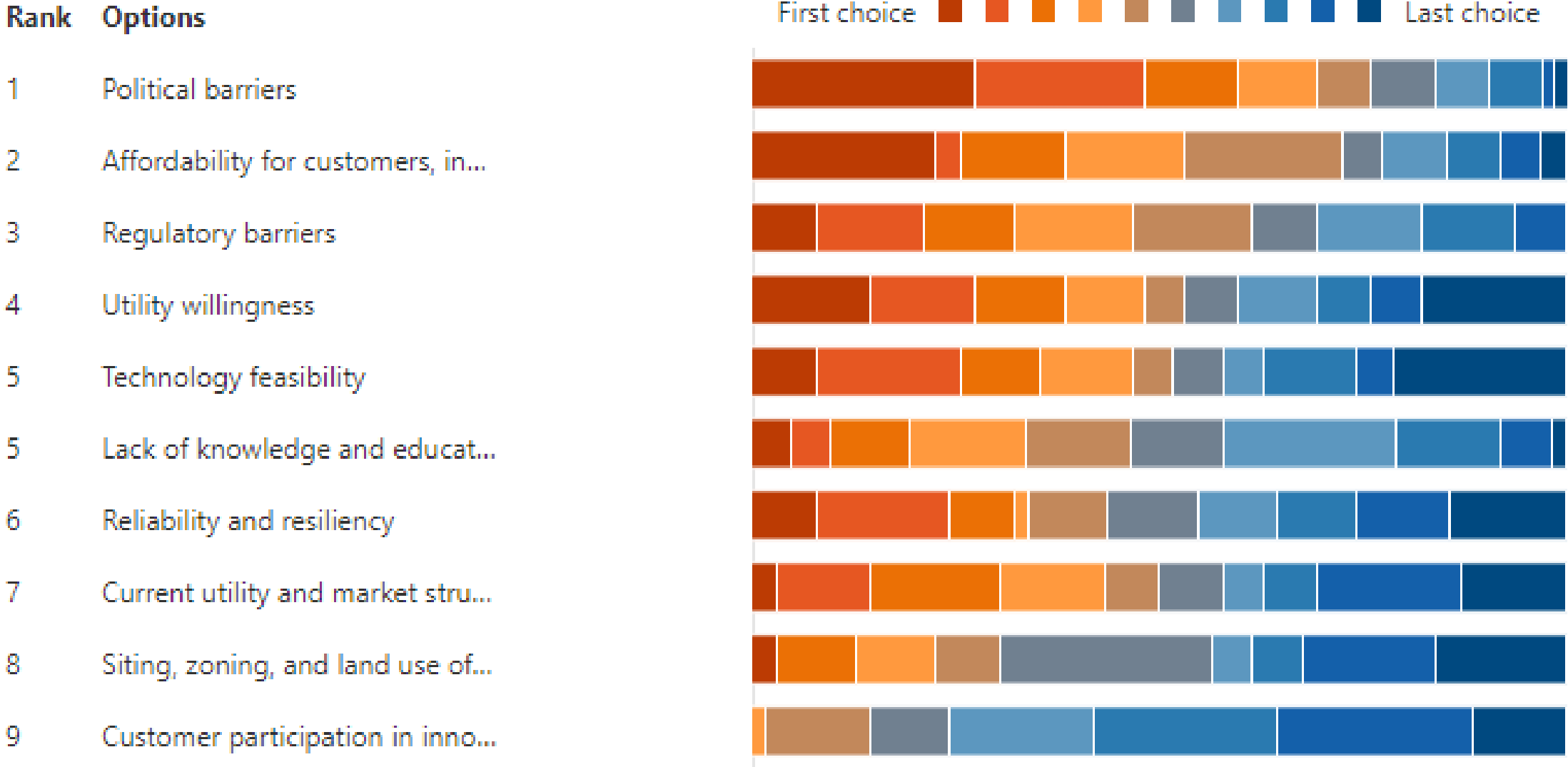


- Workgroup design, deliberations, topics, and recommendations were fully driven by stakeholders
- Diverse set of participants
- Equally diverse set of goals and concerns

Workgroup Overview

8. Please list in order of importance the following barriers to decarbonization with your first option being the largest or most difficult barrier to overcome.

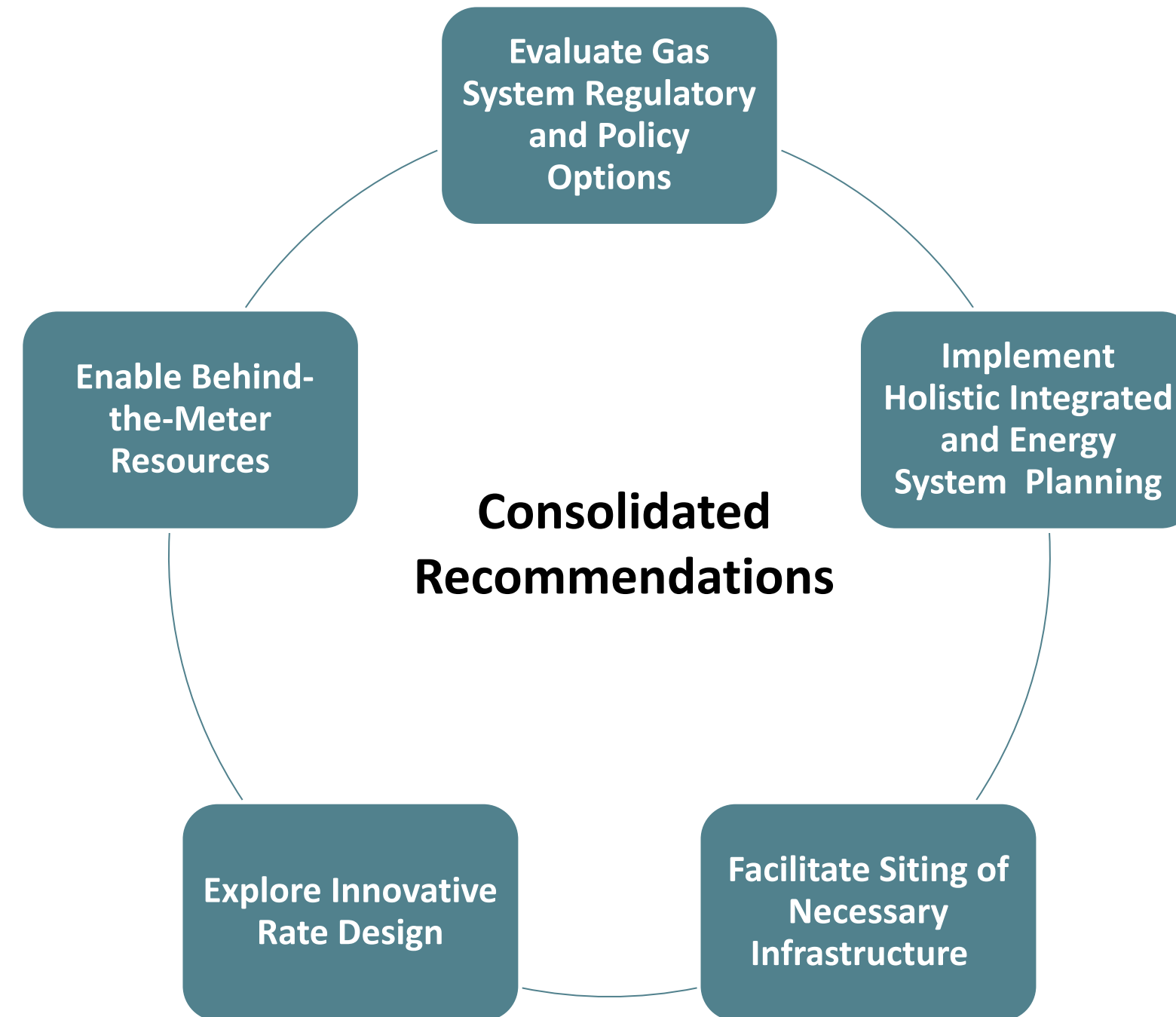
[More Details](#)



- Maintained focus on goals of Council throughout the process
- Excellent debate and deliberations throughout
- Robust documentation of all viewpoints, comments, changes, and input

Energy Production, Transmission, Distribution, and Storage

Electricity and Natural Gas



EPTDS Workgroup Process Overview

Phase 1: Introductory Status and Idea Presentations By Major Stakeholders

- Build a shared foundation of perspectives on decarbonization from:
 - Utilities (IOU, muni, and coop)
 - Transmission owners and operators
 - Third-party technical and policy experts
- Speakers included: Consumers Energy Gas, DTE Gas, WPPI, UMERC, Marquette L&P, I&M, Wolverine Power, Holland BPW, MPPA, Consumers Energy Electric, DTE Electric, MISO, PJM, ITC, ATC, Pacific Northwest Nat'l Lab, Energy Storage Ass'n, Office of EJ Public Advocate

Transition to Phase 2

- Survey sent out for workgroup members to indicate which subgroup they would like to join, and indicate level of participation (participant or observer)
- Decarbonization presentation by Nat'l Renewable Energy Lab, Mini Idea presentations (11 stakeholder presentations)

Phase 2: Discussions and Deliberations

- Break workgroup into 8 topical subgroups that developed draft recommendations on specific issue areas. 73 independent recommendations submitted.
- Input from members of Council on Climate Brain Trust to provide feedback on drafts.

Phase 3: Resolving Differences and Finalizing Recommendations List

- The full workgroup reconvened to review, refine, and consolidate the recommendations, as well as identify gaps.

Final Survey: Collected final input on recommendations

Meeting 1
4/06/2021

Meeting 2
5/20/2021

Meeting 3
5/4/2021

Meeting 4
5/18/2021

Meeting 5
6/01/2021

Meeting 6
6/15/2021

Survey

Meeting 7
6/29/2021

Meeting 8
7/13/2021

Meeting 9
7/28/2021

Meeting 10
8/10/2021

Meeting 11
8/24/2021

Meeting 12
9/07/2021

Meeting 13
9/21/2021

Closing
Survey

Feedback from Closing Survey

- Gauging level of agreement to disagreement along with opportunity for open-ended responses;
- Many respondents found the process productive and valuable, impressed with final work product
- Some found it hard to comment on the recommendations since there were several components, they may have agreed with some and disagreed with other components
 - Some subgroups had up to 20 different sub recommendations under one topic, so significant nuance may have been lost
- Several commenters suggested the recommendation development and feedback process was too fast and didn't allow for enough discussion;
- One interpretation is that these recommendations are not the end of the process, they are the beginning. To effectuate decarbonization, we will have to work through these in detailed action plans.

Impacts on Equity and Environmental Justice

- Tasked both with decarbonization and improving equity and environmental justice
- The results of these recommendations will:
 - lower emissions in disproportionately impacted communities;
 - increase reliability and resiliency of the grid, more fairly distributing benefits;
 - improve health impacts on low-income communities;
 - increase jobs in new sectors
 - provide fairer compensation for services provided
 - directly support communities that have been disproportionately impacted by our current grid and the changing climate.

Takeaways

- There was a large number of recommendations put forth by members. While some nuance was lost during consolidation, the five themes encompass the overarching points of 6 months of work.
- Further details of the sub recommendations are found on separate recommendation templates.
- We have very committed and passionate stakeholders who are dedicated to this process; over 150 folks representing wide range of viewpoints and varied levels of consensus.
- There are no silver bullet solutions, these are complex and intersecting topics that require coordination and cooperation.

Implement Holistic and Integrated Energy System Planning

- **Rationale:** We will need to plan for **strategic alignment** among resource, distribution, transmission, and storage planning. Traditional IRP planning includes developing **numerous scenarios and sensitivities** to various utility futures, though is **limited** to only the electric side of utilities and has specific constraints developed in law, under PA 341. While these requirements are due to be revisited in 2022, it is recommended that the Council on Climate Solutions **considers resource planning more holistically**, such as the impacts of **transmission** and **storage** on the system as well as considering how and to what extent **natural gas** for space and water heating and industrial processes continue to be part of Michigan's energy future. It is essential to ensure that the transition does not occur in an inequitable manner.
- **Recommendation:** The Michigan Public Service Commission should implement a series of measures towards **more holistic and integrated energy system planning** in Michigan. This should include **traditional resource** planning, **long-range transmission** planning, **distribution** planning, **storage** planning, consideration of **new and emerging** resources, planning around areas of **interdependency** between the electric and natural gas systems, and consideration of **community and health** impacts. Importantly, a number of the preliminary recommendations should be provided to MPSC staff for consideration as they begin the stakeholder process to revise MI Integrated Resource Planning Parameters and Filing Requirements.

Enable Behind-the-Meter Resources

- **Rationale:** Significantly increased renewable energy generation plus energy storage is a given requirement for achieving carbon neutrality for the state. This will require new, innovative approaches to achieving **load balance** and **fair compensation** for grid services. Additionally, the effects of the already changing climate, in the form of **increased extreme weather**, must be mitigated via improved **reliability** and **resiliency**. This recommendation attempts to address both increasing usage of clean electricity generation and guarding against the impacts of climate change, while uplifting and protecting the most **vulnerable populations** and historically **disadvantaged communities**.
- **Recommendation:** Advance **policies** that enable **behind-the-meter** resources and **demand flexibility** including **rooftop solar**, electric vehicle (**EV**) **aggregation** and **vehicle-to-grid (V2G)** technologies, **microgrids** and **off-grid** capabilities, **energy storage**, and enhanced energy waste reduction (**EWR**) while utilizing low-cost **financing** and prioritizing **low-income** and environmental justice (**EJ**) communities.

Explore Innovative Rate Design

Rationale: As the energy transition evolves, including away from baseload resources to cleaner and intermittent resources in efforts to reduce greenhouse gas emissions, electricity and natural gas **rate design must be reformed** to ensure a stable transformation. For example, customer-owned behind-the-meter resources, third party energy providers, and other distributed energy resources, **draw revenues away** from the **traditional utility framework** in which revenues are collected by utilities and customer rates are founded. Customers continue to have more rate options available, such as time-of-use pricing and specific rates for customers with electric vehicles, to encourage more effective usage off-peak. However, the **needs of both customers and utilities will continue to be challenged** and innovative rate design will be essential as technology and decarbonization solutions are deployed. Further, the energy transition and specifically rate design must promote **equitable access** to the benefits of clean energy and ensure inequities to the most vulnerable customers are mitigated.

Recommendation: Explore innovative **rate design concepts**, including **studies** and other considerations in the design of customer rates as decarbonization efforts progress.

Facilitate Siting of Necessary Energy Infrastructure

- **Rationale:** Decarbonizing the power system at acceptable cost using known commercially available technologies will require building substantial amounts of **wind and solar generation** in Michigan, as well as siting **grid-scale storage** and some additional **transmission**. Siting these power system components will require **community acceptance** in many places in Michigan and based on prior experience will be challenging. This recommendation addresses the need to achieve the necessary siting with community acceptance.
- **Recommendation:** Adopt state **policies** and **programs** that will **facilitate siting** of necessary **renewable generation, storage, and transmission** sufficient to achieve a clean energy transition of the electric power sector.

Evaluate Gas System Regulatory and Policy Options

Rationale: Natural gas used for space heating, water heating, and industrial processes is the **primary driver** of greenhouse gas emissions from Michigan's residential, commercial, and industrial sectors, which collectively contribute a **third** of the state's economy-wide greenhouse gas emissions. Achieving the state's goals of economy-wide carbon neutrality by 2050 and net negative GHG emissions thereafter will require significantly reducing emissions from natural gas end uses through a combination of technologies and approaches including but not limited to **energy efficiency, electrification, and low/no emissions** gaseous fuels. However, determining the right mix of technologies and approaches to serve Michigan's needs in each sector will require ongoing **research and analysis, stakeholder engagement, and learning through action.**

Recommendation: The Michigan Public Service Commission should initiate a staff-run **stakeholder group or proceeding** to evaluate opportunities and considerations for **changes to gas utility regulatory and policy structures** needed to support **cost-effective and equitable** achievement of the state's economywide greenhouse gas reduction goals.

Introduction to Discussion of Recommendations from the Energy Production, Transmission, Distribution, and Storage Workgroup

Doug Scott
Trevor Drake

Great Plains Institute

Council Member Discussion of Recommendations from the Energy Production, Transmission, Distribution, and Storage Workgroup



NEXT STEPS

- **Next Meeting of the Council**
- **Mon., Nov. 1, from 1-3 p.m. (Energy Intensive Industries Workgroup Recommendations)**

Reach Us Online

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