



Making the Most of Michigan's Energy Future

MI Power Grid Phase II

Competitive Procurement Third Workgroup Meeting

January 12, 2021

Jesse Harlow



MPSC

Michigan Public Service Commission

Workgroup Instructions

1. This meeting is being recorded
2. Please be sure to mute your lines
3. There will be opportunities for question/comments after each of the sections identified in the agenda
 - Please type questions into the chat function or use the raise hand function during this time
 - We will open it up to those on the phone after those using the chat function
 - We will be requesting comments after all of the meetings which will be posted to the webpage
4. The presentations for all the meetings are posted to the Competitive Procurement webpage.

Agenda Items		
9:00 am	Introduction	Jesse Harlow (MPSC)
9:15 am	Staff Straw Proposal Comment Overview	Laura Sherman (MIEIBC) Ryan Katofsky (AEE) Angela Wojtowicz (DTE) Phillip Rausch (HSC) Keith Troyer (Consumers)
10:15 am	Break	
10:20 am	Staff Straw Proposal Comment Overview	Gary Melow (MI Biomass) Steve Levitas (Pine Gate) Regiana Sistevaris (I&M) Dan Dundas (MEGA) Margrethe Kearney (JCEO)
11:40 am	Wrap-Up and Next Steps	Jesse Harlow (MPSC)
11:55 am	Closing	Jesse Harlow (MPSC)
12:00 pm	Adjourn	

Competitive Procurement Comments



January 12, 2021

- **Objective and Guiding Principles**
 - Supportive of the drive towards transparency and non-discriminatory access
 - Generally supportive of tech-neutral approach to resource acquisition when all needs are fully considered
- **All Source Bidding**
 - Can exclude renewable resources if evaluation only based on price. Evaluation should reflect full range of desired performance characteristics
 - Important to consider application to different planning processes
- **Competitive Bidding Guidelines**
 - The Commission should clarify which requirements from FERC Order 872 should apply to all competitive bidding
 - Important for the Commission to clarify how the Allegheny Principles will be applied
- **Template PPA**
 - It would be helpful for the utility to identify in the RFP which provisions in a contract are non-negotiable

- **Transmission and Distribution Constraints**
 - Unreasonable to require T/D upgrade costs in bid prices because accurate costs may not be known at the time of the bid

- **Evaluation Process**
 - Utility/affiliates shouldn't compete in RFP processes when the utility is conducting bid evaluation

 - Utility shouldn't be involved in the bid evaluation process if their own projects are being considered

 - Role and scope of independent evaluator/administrator must be discussed further

- **Stakeholder Review**
 - Only Commission Staff, the utility running the RFP process, and the IE/IA should review actual bid documents

Feedback on the 3 Options for Alignment with MCL 460t(6)

- *Option 1: Pre-IRP RFP functions as RFI, post-IRP RFP is specific to resources identified in IRP*
 - May not gain accurate pricing using an RFI, however would allow some information and the post-IRP RFP could then be based on sources determined in IRP
- **Option 2:** *Pre-IRP RFP functions as RFI, Post-IRP RFP specific to resources identified in IRP, RFP parameters specified in IRP with approval in IRP proceeding*
 - Provides greatest certainty for bidders; however same RFI pricing concerns
- *Option 3: Pre-IRP RFP is all-source RFP which informs and drives modeling/project selection for IRP and results in contracts post-IRP*
 - Challenge with significant time between RFP and contracts
- **Proposed hybrid option:** Use Option 2 with addition that post-IRP RFP can serve as RFI for next IRP (providing ground-truthing on pricing).
 - Assumes next modeling begins within a reasonable timeframe of previous post-IRP RFP to allow accurate information for modeling.



MI Power Grid: Competitive Procurement Workgroup Meeting #3

January 12, 2021

DTE believes RFP improvements can, and should, be done without promulgation of rules or issuance of formal guidelines

- DTE has a successful track record using request for proposals (RFPs) resulting in many approved, contracted, and constructed projects
- The Company's process has become increasingly more transparent and has involved an independent advisor
- DTE is committed to continuous improvement and welcomes suggestions on how to continue to make our RFP process even more transparent, more efficient for developers, and result in projects that provide increased benefits for our customers
- Ultimately it is the utility's duty and responsibility to choose projects that best suit the needs of its customers

There are instances where an RFP may not be necessary, but when warranted should be a Limited-All-Source RFP

- DTE acknowledges the requirement of MCL 460.6t(6) to issue an RFP for resource needs identified during the initial 3-year IRP planning period, however, notes there are instances where an RFP is not warranted, including:
 - If the utility does not identify a generation resource need in the initial 3-year of the integrated resource planning (IRP) process
 - If the utility identifies a short-term capacity need identified in the prompt two planning years
 - For Voluntary Green Programs and Renewable Portfolio Standards needs including, but not limited to, the following examples:
 - Unsolicited proposals allowed under MCL 460.1028(4),
 - When there is insufficient time to conduct an RFP prior to a tax credit change,
 - For a procurement agreed to by parties to a settlement agreement
- DTE agrees that RFPs under MCL 460.6t(6) should be open to varied resource types *to the extent they meet the need identified* by the utility
 - Limited-All-Source RFPs under MCL 460.6t(6), constrained to resources that meet the defined need, will be less burdensome and time consuming

Where an RFP is required per MCL 460.6t(6), DTE believes Option 3, (consisting of a pre-IRP RFP) is the only legal and viable option but implementation should be determined on a case-by-case basis

- DTE believes Options 1 and 2 (Pre-IRP RFI with post IRP RFP) do not comply with MCL 460.6t(6). Additionally, they require a request for information (RFI) which poses many concerns, including:
 - Bids obtained will likely not represent true project costs as suppliers are not bound to the information provided
 - Bidders have an incentive to discount their technology in hopes it will appear most cost-effective in IRP modeling and be selected for execution
 - Several developers stated that they would likely not participate in an RFI due to the workload and lack of project selection
 - An RFI, followed by an IRP, followed by RFP, will take a considerable amount of time and resources, which could jeopardize the cost and construction of projects and potentially impact reliability
- Option 3 is viable, and utilities should determine implementation on a case-by-case basis
 - DTE believes that a rigid timeline for the RFP/IRP process should not be specified due to the complex nature of the process which requires flexibility
 - DTE has identified two workable timelines as illustrative examples: a preferred Concurrent Pathway (RFP overlapping IRP) which is not unduly long, mitigating risks such as contract price changes and qualification for federal tax credits, and a Sequential Pathway (IRP imbedding in RFP timeline)

DTE does not support minimum requirements for all RFPs and believes requirements for each RFP be developed in consultation with Commission Staff

- Needs driving RFPs can vary widely and evaluation criteria and processes may need to adapt, either in definition or in relative weighting of criteria
 - Examples: emissions/air impacts, Investment Tax Credits (ITC), etc.
- DTE does not support the complete disclosure of the weighting and factors to stakeholders.
 - Too much information with regard to scoresheets and specific scoring criteria can result in a carefully “reversed engineered” bid that scores well but can misrepresent the true feasibility and cost of a project
- DTE believes it would be helpful to identify any non-negotiable contract terms up front, but also believes there can be value in the ability to negotiate some contract terms after the short list of bidders is selected. The ability to negotiate specific RFP terms should be determined on a case-by-case basis.
 - Factors that are important to one developer may not be as important to another and negotiation in areas of bidder flexibility could lower the contract price

Use of an independent evaluator (IE) can be beneficial to oversee a competitive solicitation process; however, the IE cannot, by itself, complete the evaluation process or have final selection authority

- The expertise and capabilities of the utility should be leveraged to conduct the evaluation process as a whole
- An independent evaluator could provide recommendations that could be considered both by the utility during the process and by the Commission Staff through the audit process
- FERC's Allegheny standard does not require an independent administrator or evaluator to have any decision-making authority, or even run the issuance and bidding process
- In the event that the utility or an affiliate plans to participate in the competitive solicitation, the evaluation team and the bid teams should be separately staffed, and compliance with such code of conduct requirements can be monitored by the independent evaluator

Conclusion

- DTE believes RFP improvements can, and should, be done without promulgation of rules or issuance of formal guidelines
- There are instances where an RFP may not be necessary, but when warranted should be a Limited-All-Source RFP
- Where an RFP is required per MCL 460.6t(6), DTE believes Option 3, (consisting of a pre-IRP RFP) is the only legal and viable option but implementation should be determined on a case-by-case basis
- DTE does not support minimum requirements for all RFPs and believes requirements for each RFP be developed in consultation with Commission Staff
- Use of an independent evaluator (IE) can be beneficial to oversee a competitive solicitation process; however, the IE cannot, by itself, complete the evaluation process or have final selection authority
- DTE Electric is committed to working with stakeholders to improve the RFP process while maintaining flexibility so that the Company can react to and plan around evolving customer demands, market conditions, emerging technologies, and regulatory constructs

Questions?



U20852 – Competitive Procurement Stakeholder Input

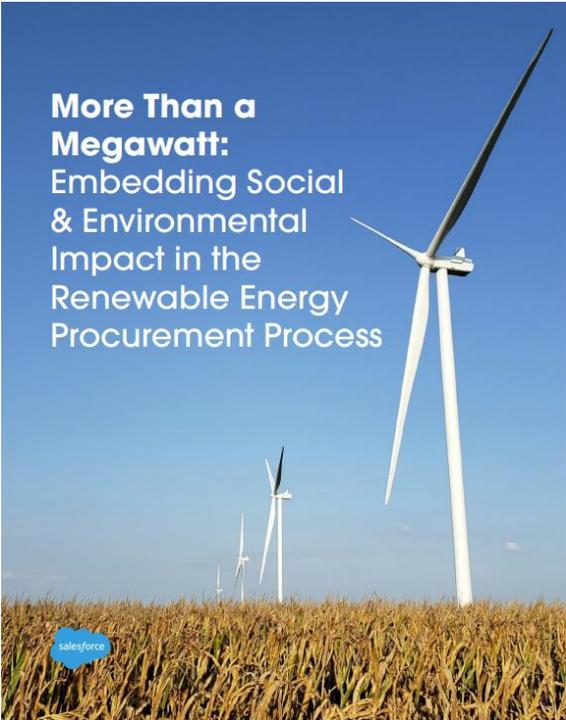
HSC
Phil Rausch



HSC Input

- HSC recommends that energy resources take into consideration opportunities to combat the climate crisis in relation to Gov. Whitmer's recent Executive Order No. 2020-182. Accelerating the deployment of solar energy resources will meet the needs for rapid de-carbonization.
- HSC would like to provide additional input to guideline 4(b). To ensure that projects have the most beneficial impact possible, non-price factors including Environmental, Social and Governance (collectively ESG) metrics should be included.

Considerations for IRPs and RFPs



More Than a Megawatt:
Embedding Social
& Environmental
Impact in the
Renewable Energy
Procurement Process

- **Environmental** – Embodied carbon (supply chain emissions) should be considered in solar RFPs to select projects with lowest environmental impact.
- **Social** – Considerations for where equipment supply chain components are manufactured should be considered to insure fair standards of labor for workers, regardless of technology.
- **Governance** – Supply chain resiliency and domestic manufacturing should be considered as well as corporate citizenship and community engagement

Solar PV Supply Chain Embodied Carbon



Polysilicon

Ingot/Wafer

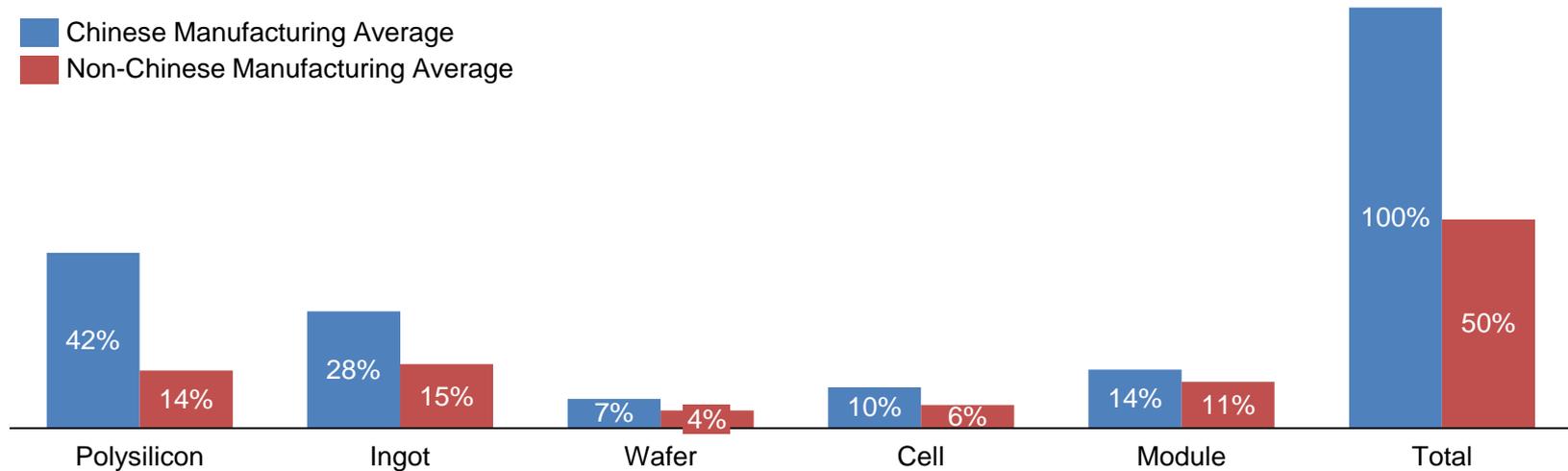
Cell

Module

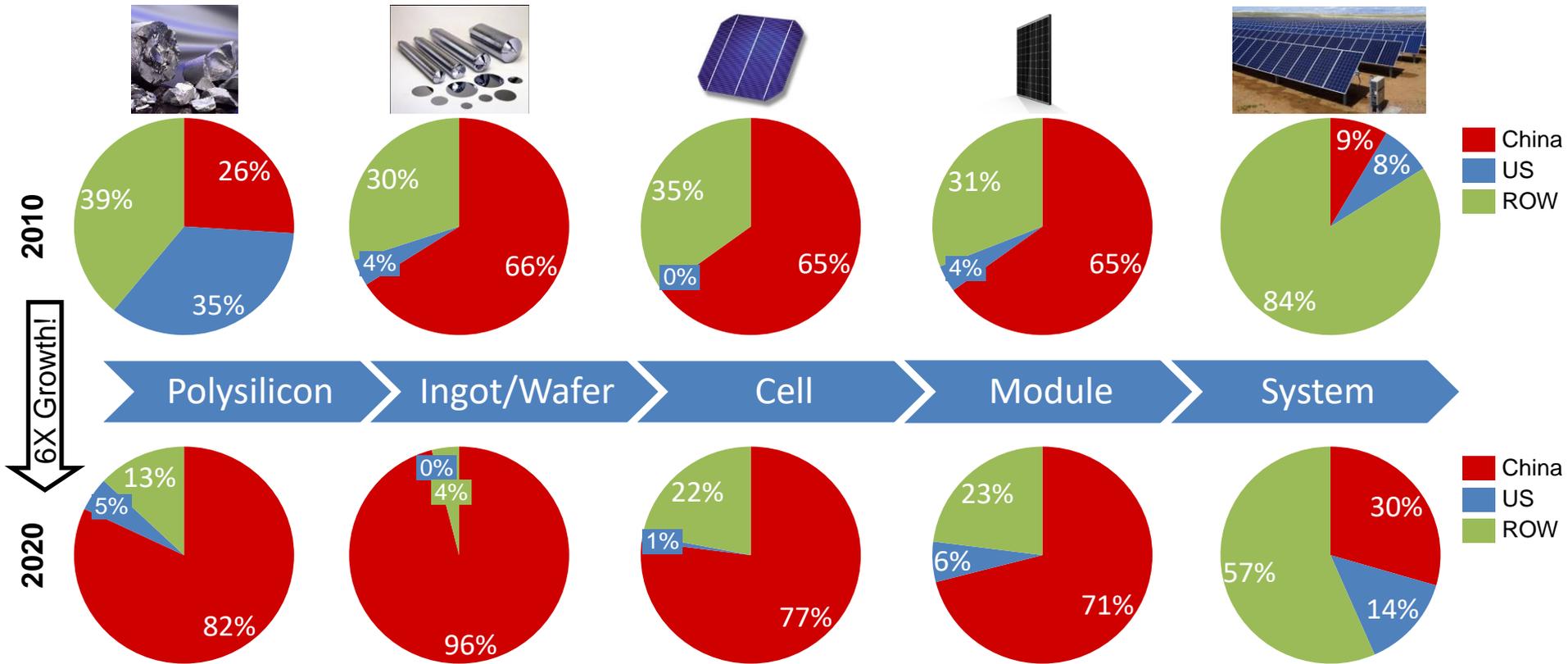
System

% Of Embodied GHG Emissions
In Finished Module

Chinese Manufacturing Average
Non-Chinese Manufacturing Average



China Dominates Solar Supply Chain



IHS Supply Chain Tracker, Q2 2020

MI Power Grid: Competitive Solicitation Workgroup

January 12, 2021

Disclaimer

The following information is provided for education and discussion purposes only.

Consumers Energy's comment, or lack of comment, on a particular topic does not indicate either acceptance or disagreement with the subject matter.

Consumers Energy reserves the right to provide its official position on any particular subject matter through the written commentary process incorporated in this workgroup.

Responses provided through the Company's written comment shall determine the Company's position in the event of discrepancies between this presentation and written comments.

Utility Perspective Summarized

- Utilities should have the flexibility to tailor competitive procurements to the needs of customers and the business.
- Consumers Energy favors guidelines over rulesets
- 2008 Renewable Energy Plan Guidelines for Competitive RFPs has worked well

Summary of CE Comments

- Consumers supports using this workgroup to establish guidelines similar, with necessary updates, to those in case no. U-15800.
- Guidelines provide needed flexibility to tailor solicitations to the needs of a utility and its customers.
- If Staff intends to propose formal rules for competitive bidding and requires competitive bidding for all circumstances, it would be inconsistent with MCL 460.6s and MCL 460.6t
- Consumers seeks clarity on how the workgroup guidelines interact with pre-IRP, post-IRP, and FERC Order 872 competitive bidding for avoided costs
- Option 3: Pre-IRP RFP is the most consistent with law.
- Consumers does not support mandating “all source” bidding.

5 Minute Break

Biomass Power in Michigan

IRP Competitive Procurement Workgroup

Michigan Public Service Commission

January 12, 2020



Home-grown, Michigan-made renewable energy

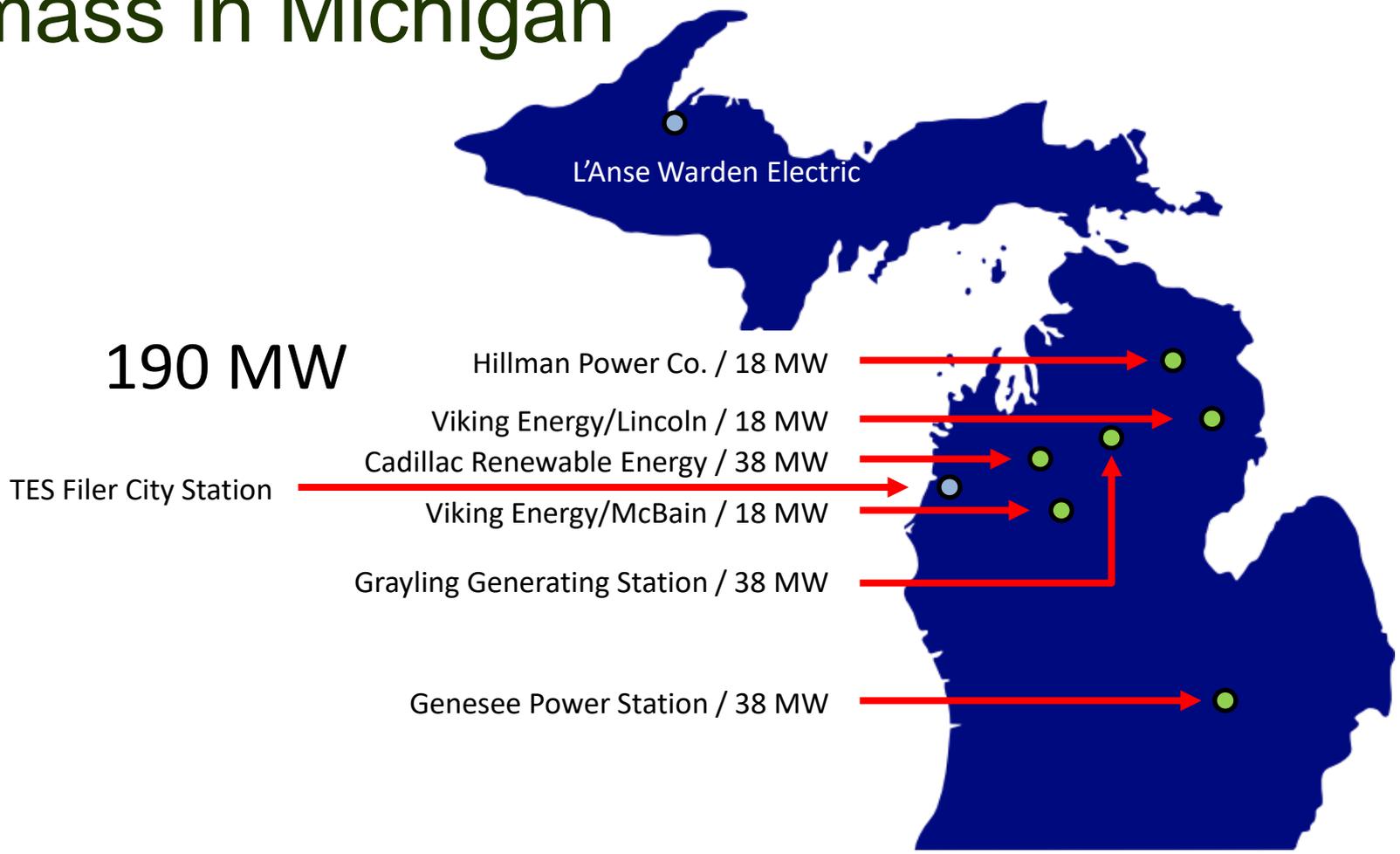
Michigan Biomass comments

“...while that is important for resource planning, those values should be recognized and scored within the competitive bidding process if these values are to be fully realized, and have their desired effect incorporated into the ‘most reasonable and prudent’ outcomes in energy decision making, and a ‘no regrets’ energy future for the State of Michigan.”

Michigan Biomass comments

“MPSC’s Zachary Heidemann, who is heading up this segment of the Phase II workgroup, should be invited to present the energy diversity topic to the procurement workgroup to better inform participants on this topic and how it relates to competitive procurement. Commission staff should determine the best timing to introduce this topic – either now while it’s under development, or after it’s work is done.”

Biomass in Michigan



190 MW

TES Filer City Station

Hillman Power Co. / 18 MW

Viking Energy/Lincoln / 18 MW

Cadillac Renewable Energy / 38 MW

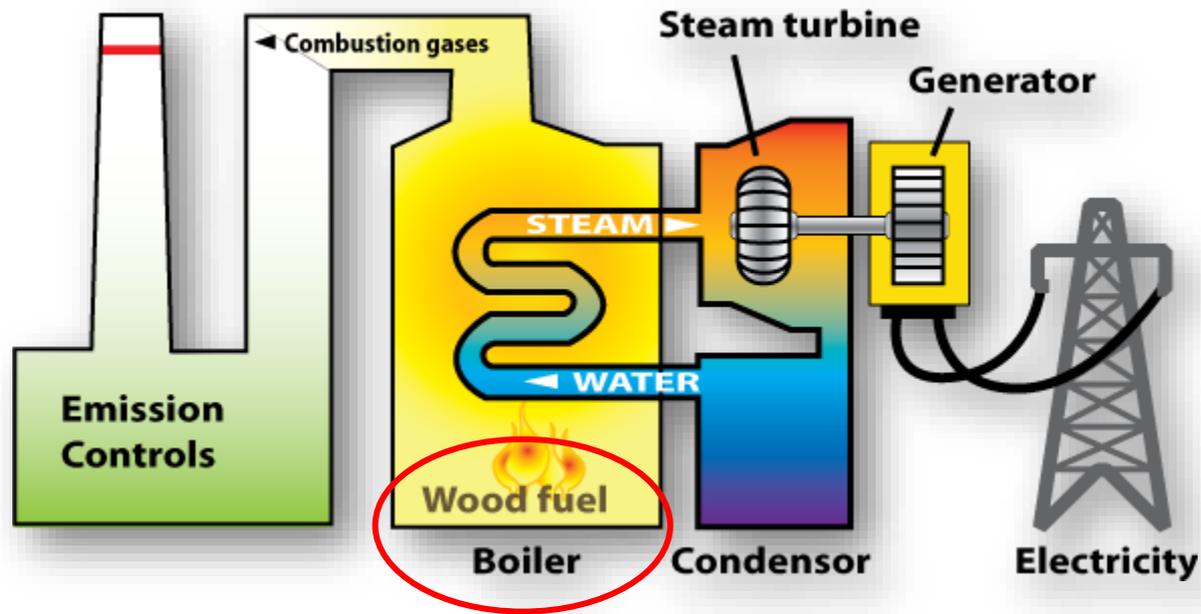
Viking Energy/McBain / 18 MW

Grayling Generating Station / 38 MW

Genesee Power Station / 38 MW

L'Anse Warden Electric

Technology

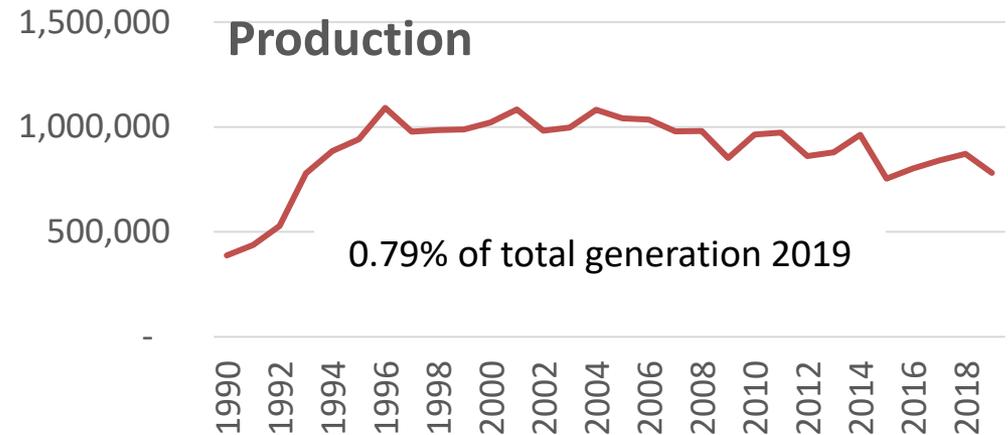


Production

2019 Biomass Power Production

State	Total MWh	Nat'l. Rank
CA	1,667,021	1
NH	866,702	2
MI	781,240	3
GA	625,222	4
ME	601,170	5

Historical Biomass Power Production



Source: [U.S. Energy Information Administration Net Generation 1990-2019 Final.xls](#)

Economics

2017	Direct	Induced
Total economic impact	\$124 million	\$219 million
Labor	\$22.5 million	\$59.5 million
Jobs	151	953

Fuel labor metric

- 13,000 tons/MW/yr.
- 5,000 tons/person/yr.



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Source: Ongoing study, Michigan DNR Timber & Forest Products Advisory Council, 2013-present

Fuels

2018

Tons of wood	1,239,777
Dollars spent*	\$24,961,179
\$/ton of wood	\$20.13

Number of scrap tires	3,165,018
Dollars spent*	\$1,301,807
\$/tire	\$0.41



* Source: Consumers Energy Power Supply Cost Recovery Reconciliation Case No. U-20202

Fuels

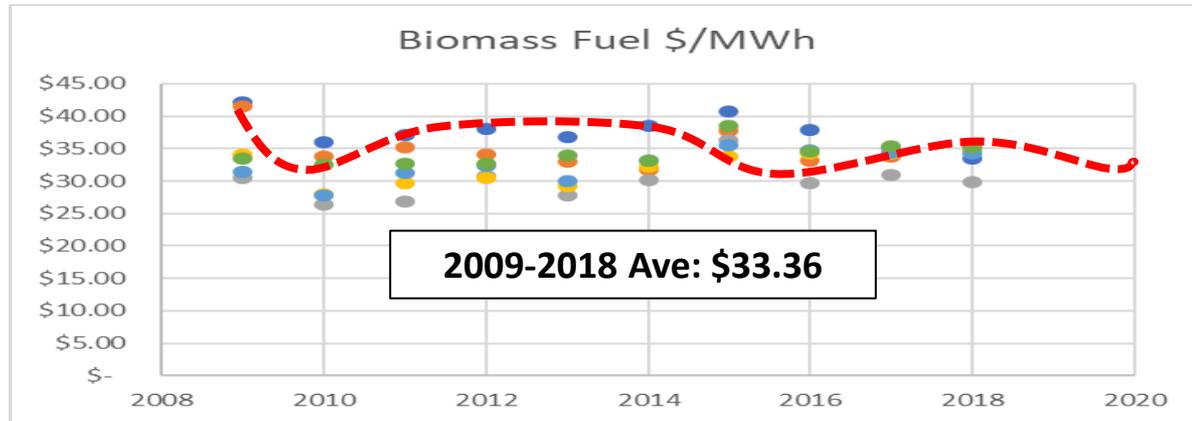
Tire-derived fuel (TDF)

- Michigan Scrap Tire Management Program (*EGLE*)
 - Whole tires banned in Michigan landfills
 - 10 million tires per year
 - Michigan Biomass = 3.1 million*
- Title transfer fees: Part 169/NREPA
 - Clean up grants
 - Enforcement
 - Market development
- Co-fire @ 3-5% = efficiencies, economics, lower emissions



*Source: *EGLE TDF Triennial Utilization Report 2018*

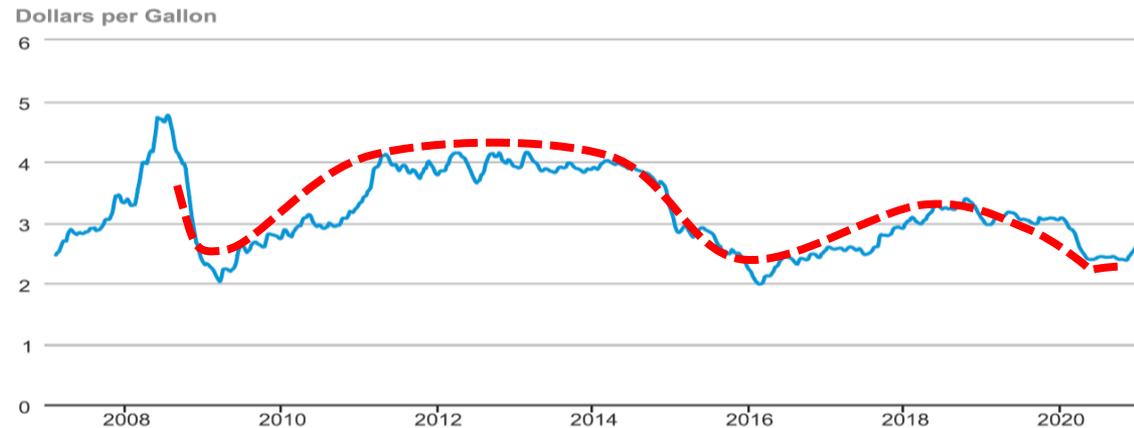
Fuels



Byproducts = non-commodity resource

- Stable fuel costs

Weekly U.S. No 2 Diesel Ultra Low Sulfur (0-15 ppm) Retail Prices



Sources: Biomass fuels, *Consumers Energy Power Supply Cost Recovery Reconciliation, 2009-18* ; Diesel prices from EIA

Fuels

Renewable energy resource



“Wood and Wood Derived Fuels includes paper pellets, railroad ties, utility poles, wood chips, bark, red liquor, sludge wood, spent sulfite liquor, and black liquor, with other wood waste solids and wood-based liquids.”

Renewable resource

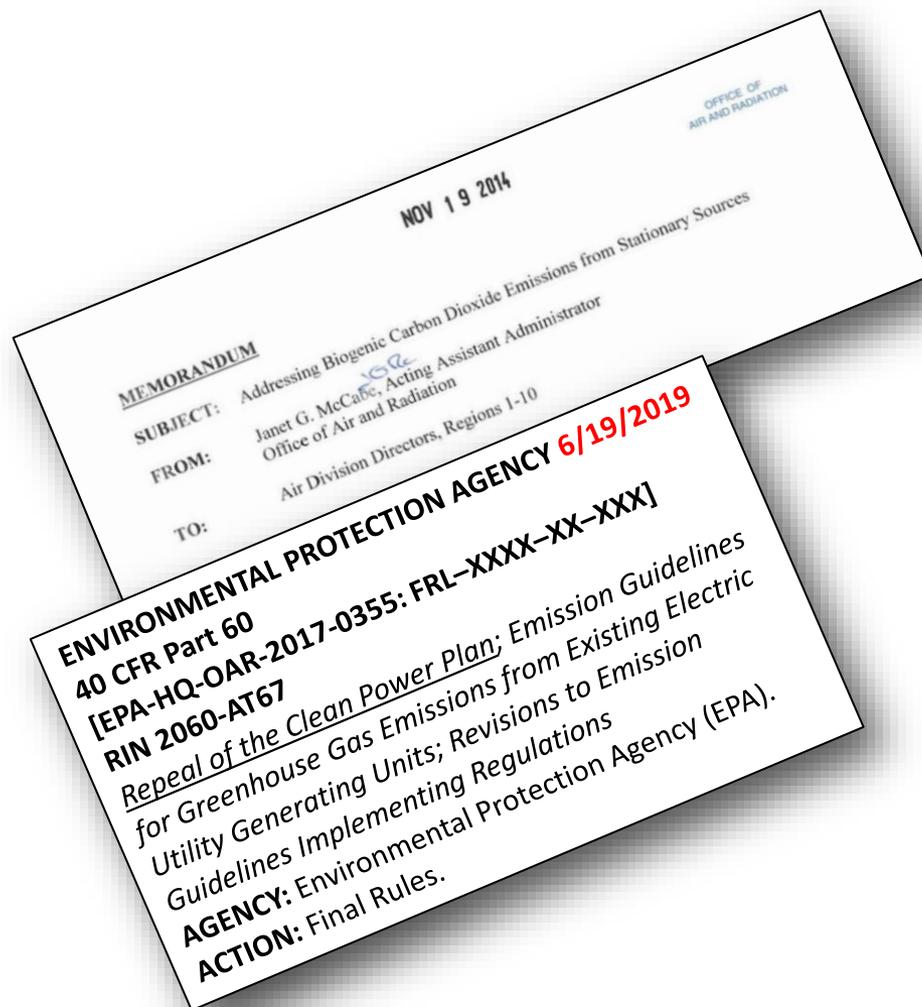
Michigan

PA 141 of 1994 (*NREPA: PA 205 of 2008*)

- Fuels
 - Part 115 (*wood*)
 - Part 169 (*tire derived fuel*)
- Water — Part 31
- Air — Part 55

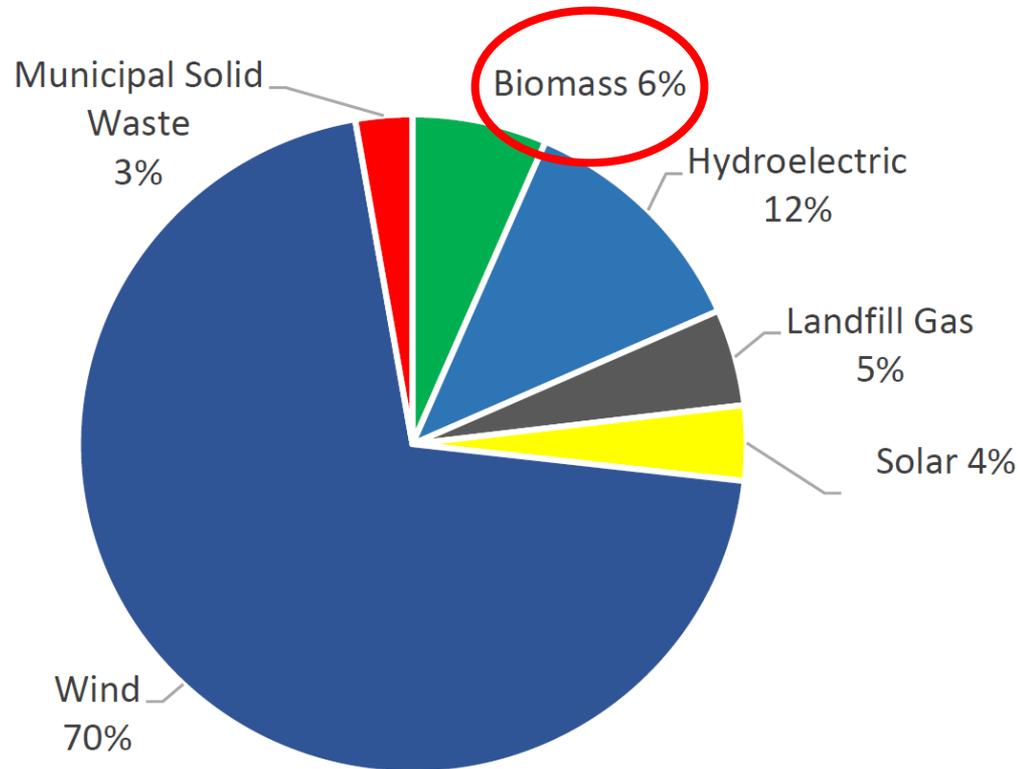
Federal

- Clean Air Act
- Clean Water Act
- Non-Hazardous Secondary Materials
- Renewable Fuel Standards
- Carbon neutral



Renewable resource

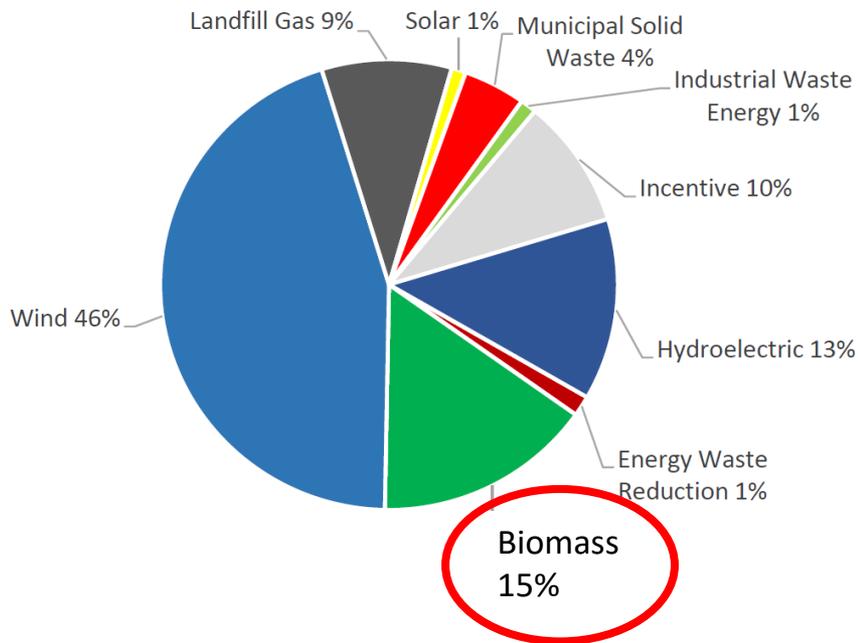
Capacity



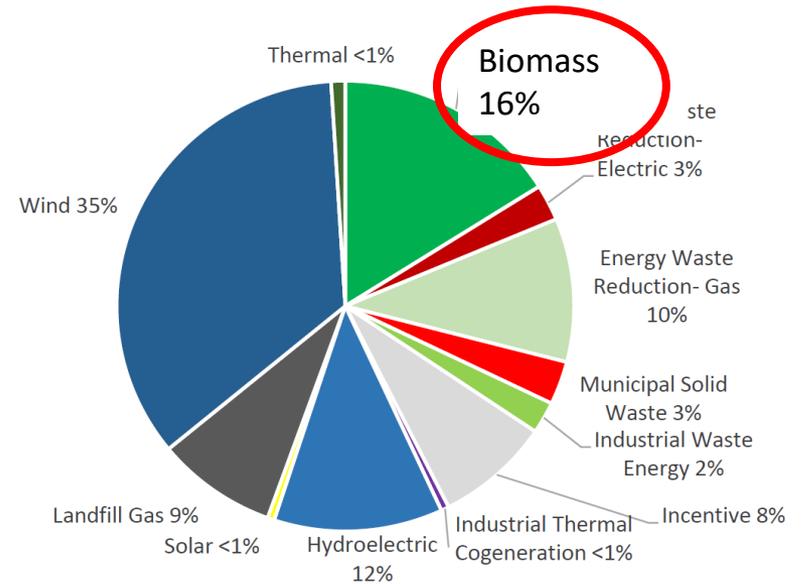
Source: [Report on the Implementation and Cost Effectiveness of the P.A. 295 Renewable Energy Standard](#), MPSC February 2020

Renewable resource

Renewable Energy Credits (RECs)



2018 Compliance Energy Credit Breakdown



MIRECS 2009-2019 Vintage Energy Credits

Source: [Report on the Implementation and Cost Effectiveness of the P.A. 295 Renewable Energy Standard](#), MPSC February 2020

“It’s not the energy we make, but how we make energy that matters”

- Forest health & stewardship
 - Harvest residuals
 - Precommercial thinnings
 - Salvage & sanitation
- Beneficial reuse
 - Mill byproducts
 - Manufacturing byproducts
 - Landfill diversions
 - Crates, pallets
 - Scrap tires
 - Railroad ties



*“It’s not the energy we make,
but how we make energy that matters”*

- Diverse generation resource
- Renewable
- Dispatchable
- Enhances grid reliability, resiliency
- Low emission profile
- Carbon neutral



Energy benefits

Diverse generation resource

- Non-commodity fuels
 - Local resource
 - Local transportation
 - Fuel security
- Non-intermittent generation

Grid support

- Voltage stabilization
- VARs
- Line loss mitigation
- Transmission offsets
- Dispatchable
- Cybersecurity
- Cost avoidance

Renewable

- Baseload
- Non-fossil
 - Low emissions profile
 - EPA “minor” source of HAP
- Carbon neutral
 - Michigan RPS
 - Clean Power Plan
 - Affordable Clean Energy Plan



Energy diversity

Question #2:

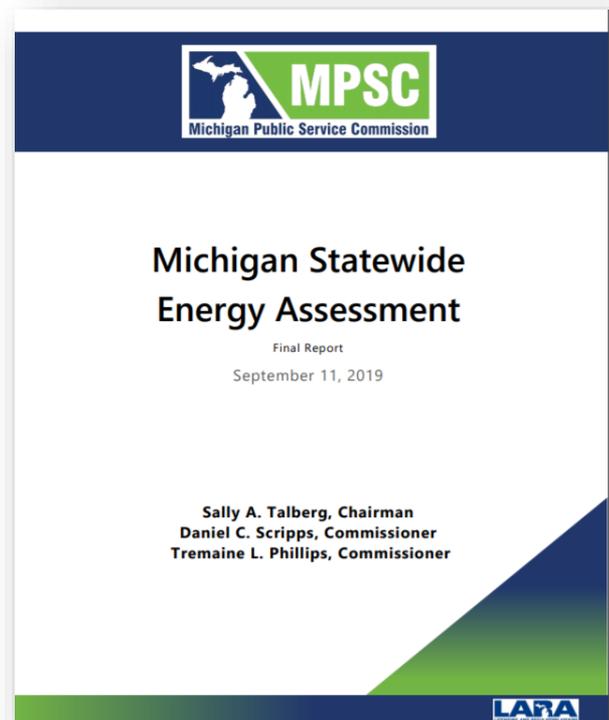
Additional research and/or discussion as part of the workgroup process

“The Commission recommends that the value of diversity in power supplies be quantified as part of future integrated resource plans filed by electric utilities. In addition, the value of resiliency should be considered in future electric infrastructure planning and investment decisions related to energy supply and delivery, including generation sources, transmission and distribution upgrades, and grid modernization technologies.” – *SEA, Deliverables, Provide Recommendations to Mitigate Risk, page ii*

SEA Recommendation E6:

“The Commission recommends utilities work with Staff and stakeholders to propose a methodology to quantify the value of generation diversity in integrated resource plans.” – *Case No. U-20633*

- **Phase II** - Integration Of Resource/Distribution/Transmission Planning
- **Phase III** - Integrated Resource Plan (*MIRPP*)



Energy diversity

U-20633

- Coal and nuclear closure decisions
- Delayed RE/DR/EWR could jeopardize reliability/resiliency
- Aid retrofits and retirement decisions beyond NPV, market price

“The changing electric generation fleet in Michigan and the Midwest due to increasing retirements of coal and nuclear plants could lead to reliability and resiliency problems especially if new replacement resources such as energy waste reduction, demand response, and wind and solar energy projects are delayed. Understanding the value of resource diversity could also better inform power plant retrofitting and retirement decisions beyond traditional net present value and market price comparisons.”

Order Opening Docket, Page 2

Energy diversity

Consumers Energy rate case [\(U-20697\)](#)

- Value of Solar study
 - Pg 317: “...Commission direct the Staff to facilitate a VOS study, to be carried out by an independent third-party consultant, with the Staff coordinating with Consumers and interested stakeholders.”

Energy diversity

- 12/6/20 workgroup presentation *(Curt Volkman, GridLab)*
 - Distribution planning/forecasting processes
 - Typical – opaque, static, siloed ...*often inaccurate*
 - Daytime load shifts
 - Climate change: peak shift (seasonal)
 - COVID: load shape (weather)
 - Solar shoulder months: reverse power flow grid impacts
 - Generated vs. inverted VARs
 - Distribution Investment Deferral Framework – SoCALEd
 - i.e. capacity deferral (upgrade) substation
 - Third party NWA
 - DER attributes

Energy diversity

Valuing energy diversity...

- Resource planning
- Competitive procurement process

- Levels the playing field

Scoring: Using select criteria in decision making

- *Tie breaker: “All things being equal...”*

Rates: Attribute value reflected in rates

What is diversity?

Integration of Resource, Distribution, and Transmission Planning

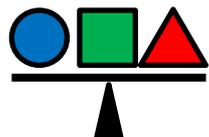
[*Zachary Heidemann, MPSC Staff, September 24, 2020*](#)



1. Variety

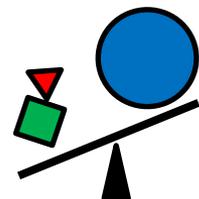
Number of categories

- Typically fuels



2. Balance

Distribution of a category population



3. Disparity

Dissimilarities between categories

- Fuel, generation characteristics

What is diversity?

Methodologies and models

- Shannon Wiener Index
- Simpson Index
- Stirling Index

What is diversity?

“No regrets”
energy future

- Adaptable
- Affordable
- Environmental attributes

PA 341 and PA 342 of 2016



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

BRIAN CALLEY
LT. GOVERNOR

November 28, 2012

*A Special Message from Governor Rick Snyder:
Ensuring our Future: Energy and the Environment*

To Michiganders and the Michigan Legislature:

I. Introduction

In Michigan, we care about energy and the environment because we care about our kids and their future. These areas don't lend themselves to "quick fixes." It takes a long time to see the effect of the choices we make. But the rewards of the right decisions are tremendous, as we know when we expand a Michigan business or play in our Great Lakes. We must ensure Michigan has the energy our kids need to thrive. We must ensure Michigan will be Pure Michigan for years to come – a place our kids will want to live, work and play.

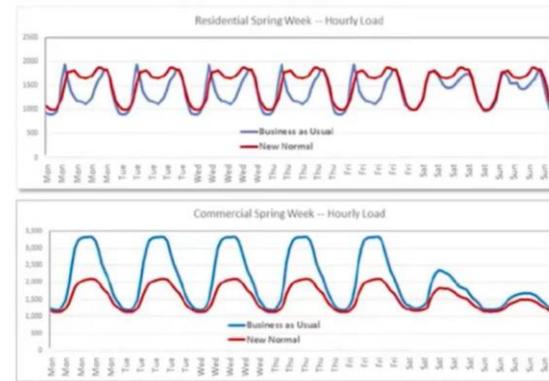
How do we know what the right decisions are? The hard part is that we don't know exactly what our future will hold and what challenges to our energy and environmental futures we will face. But that is no excuse for standing still or failing to be proactive. What we need to do is identify those actions or decisions that are **adaptable**. These are solutions that are good for Michigan, not just in one possible future, but in many

Why diversity?

- Diversity reduces risk
 - Grid reliability, resiliency
 - Outage frequency & severity
 - Generation reliability
 - Behavioral risks
 - DR, EWR
 - Daytime load shifts
 - Climate change: peak shift (season)
 - COVID: load shape (weather)
 - Solar shoulder months: reverse po
- Risk has monetary value
 - Cost avoidance
 - Transmission buildout
 - Excess generation, capital
 - Outages & disruptions
 - Example: Distribution Investment Deferral Framework – SoCALED
 - i.e. capacity deferral through substation upgrades

COVID-19 Impacts on Load Shapes

Previous



Multiplier	Value
Weekday Impact	1.15
Saturday Impact	1.05
Sunday Impact	1.09
7 Day Impact	1.13

Multiplier	Value
Weekday Impact	0.72
Saturday Impact	0.84
Sunday Impact	0.91
7 Day Impact	0.75

Why diversity?

Diversity = adequacy

“Resource planners must consider greater uncertainty across the resource fleet as well as uncertainty in electricity demand that is increasingly being effected by demand-side resources. As a result, reserve margins and capacity-based estimates can give a false sense of comfort and need to be supplemented with energy adequacy assessments. Energy assessments are key to understanding the reliability needs of a future BPS and are presented in this report.

– NERC 2020 Long-Term Reliability Assessment

Comments

Continued work Phase II resource planning

- Establish diversity criteria
- Select & vet models, methodologies

Integrate diversity criteria into Phase III IRP procurement processes

- How would scoring be applied?
- How will attributes be valued/quantified?
- Will values be reflected in rates?

It's not the energy we make, but how we make energy that matters

1. Energy diversity
2. Keeps energy dollars in rural Michigan
3. Dispatchable baseload renewable when and where it's needed
4. Supports the grid and makes it more reliable and resilient
5. Beneficial reuse of byproducts
6. Carbon neutral energy
7. Aids forest health, stewardship

Michigan 
Biomass



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What We Know or Can Agree Upon

- Allow for flexibility
- Variations of Staff Option 1 and 2 of 6t(6) interpretations preferred
 - Post IRP RFP may inform subsequent IRP
- No disclosure of sensitive bidding information to parties other than Staff and IA/IE
- Include non-negotiable contract terms, use of FCM and Terminal Value analysis, Non-Price factors in scoring upfront
 - Including scoresheets upfront could lead to gaming though
 - All parties need to be provided the same data
 - Pre and Post RFP workshops
- Short term market purchases are assumed to represent the most reasonable and prudent options so guidelines may not be necessary

What we still need to figure out

- Independent Evaluator/Administrator
 - Does transparency up front mitigate this need?
 - Staff/Commission Contractor/Utility Contractor?
 - Always necessary or only for Affiliate/Self Build options?
- What size and types of projects should guidelines apply to
 - Price threshold?
 - Only generation assets?
 - VGP, PA 295, Pilots, etc.
- All source considerations
 - When should all source be considered?
 - Resource diversity?
- How to include FERC 872 and Allegheny Principles
 - Should PURPA be able to bid into all solicitations?

Tentative Timeline and Next Steps

Early February 2021

- Independent Evaluator/Administrator
 - Subject to presenter availability

Late February 2021

- How and when to apply guidelines
- How and when to apply all source bidding

Mid March 2021

- FERC 872 and Allegheny Principles

April 2021

- Finalized draft of Guidelines Reviewed