

Michigan Public Service Commission:
U-21492 Transportation Electrification Plan Filing
Requirements Interested Parties Agenda

August 21, 2024

1:00pm-4:00pm (Eastern Time)

Join [Microsoft Teams Meeting](#)

Join by phone: +1 248-509-0316, 426468211#

Phone conference ID: 426 468 211#

Agenda Items

1. Welcome & Opening Comments (Al Freeman, Michigan Public Service Commission Staff)
2. RMI Presentation: Preparing the Grid for Electric Vehicles (Ben Shapiro, Carbon-Free Transportation Manager)
3. Interested Parties Presentations
 - a. Michigan Energy Innovation Business Council and Advanced Energy United (Sophia Schuster, Policy Principal & Laura Sherman, Ph.D., President)
 - b. Ford Motor Company (Carter Wood, Electric Vehicle Infrastructure Policy)
 - c. DTE Electric (Milena Marku, Transportation Electrification Manager)
 - d. Consumers Energy (Jeff Myrom, Director of Transportation Electrification Products).
 - e. Ecology Center and Vote Solar (Charles Griffith, Climate and Energy Program Director)
4. Staff Presentation (Al Freeman, MPSC Staff)
5. Open Comment
6. Closing Remarks

U-21492 Transportation Electrification Plan Filing Requirements

Interested Parties
Meeting

**Al Freeman, Michigan Public
Service Commission Staff**

August 21, 2024

Michigan Public Service Commission Electric Vehicle Team Members

- Paul Proudfoot, Julie Baldwin, Paul Ausum, Nathan Burand, Al Freeman, Lauren Fromm, Karen Gould, Jesse Harlow, Shannon Hartman, Kristina Hubbell, Kevin Krause, Charles Putnam, Nick Revere, Anna Schiller, Fawzon Tiwana, and Laura Weir.

Michigan Public Service Commission (MPSC) Electric Vehicle (EV) and Transportation Electrification Plan (TEP) History and Overview

Michigan Plug-in Electric Vehicle Preparedness Task Force

Initiated by the MPSC in 2008 and transitioned to “[Plug-in Ready Michigan](#)”.

Time-of-Use Tariffs

Experimental EV tariffs approved by the Commission in 2010 for DTE Electric, Consumers Energy and Indiana Michigan Power.

MPSC Convened Technical Conferences on Plug-in Electric Vehicles

Technical conference held in 2017 and 2018 to seek input and discuss the MPSC’s role in the adoption of electric vehicles and deployment of associated infrastructure. Led to EV pilot programs from DTE Electric, Consumers Energy and I&M ([Case No. U-18368](#)).

MI Power Grid launched in 2019

[New Technologies and Business Models workgroup](#) assembled experts and discussed the impacts of electric vehicle deployment on the electric system.

DTE Electric Charging Forward (U-20162 & U-20935)

Two pilots approved
(\$13M & \$10M)

Rebates:

- Residential Level 2
- Commercial Level 2
- Commercial DCFC
- Fleet charging

TOU:

- Off-peak rate

Consumers Energy PowerMIDrive & PowerMIFleet (U-20134 & U-20697)

Two pilots approved
(\$10M & \$12M)

Rebates:

- Residential Level 2
- Commercial Level 2
- Commercial DCFC
- Fleet charging

TOU:

- Off-peak rate

Indiana Michigan Power IM Plugged In (U-20359)

One pilot approved
(\$675,000)

Rebates:

- Residential Level 2
- Commercial Level 2
- Commercial DCFC

TOU:

- Off-peak rate

Alpena Power Company and Upper Peninsula Power Company (UPPCO) also have EV pilot programs.

EV Dockets

- Alpena Power Company ([U-21234](#))
- Consumers
 - PowerMIDrive
 - [U-20134](#)
 - Subsequent approvals in [U-20697](#), [U-20963](#), [U-21224](#), and [U-21389](#).
 - PowerMIFleet
 - [U-20697](#)
 - Subsequent approvals in [U-20963](#), [U-21224](#), and [U-21389](#).

EV Dockets

- DTE Electric
 - Charging Forward
 - [U-20162](#) (phase one approval)
 - [U-20935](#) (phase two approval)
 - Subsequent approvals in [U-20561](#) and [U-20836](#)
- Indiana Michigan Power Company
 - [U-20282](#) (tariff approval)
 - [U-20359](#) (Plugged In EV pilot program approved)
- Upper Peninsula Power Company ([U-21137](#))

2024 EV Technical Conferences

- The MPSC held two EV technical conferences in January 2024.
- In [U-21492](#) following the technical conferences, the MPSC ordered Staff to do the following:
 - The scope of the vehicle-to-grid and energy storage workgroup established in U-21297 shall be expanded to incorporate tariff proposals for vehicle-to-grid or other receiving entities and energy storage for all regulated electric utilities.
 - Develop a draft transportation electrification plan filing process July 1, 2024. Initial comments shall be filed in this docket no later than 5:00 p.m. on July 22, 2024, and reply comments shall be filed in this docket no later on August 12, 2024

Transportation Electrification Plans

- The purpose of the TEP is for the utility to share its how it plans to address EVs in the coming years. Unlike a rate case, TEPs will cover multiple years.
- The TEPs are a plan only and there is no cost recovery available.
- A utility must introduce its TEP in a subsequent rate case for any cost recovery.
- In January 2024, DTE Electric filed its TEP In [U-21538](#).
- Consumers Energy filed its TEP on July 1, 2024 in the same docket.
- Indiana Michigan Power will also be filing a TEP.



Preparing the Grid for Rapid EV Load Growth

Michigan PSC | TE Plan Filing Requirements | U-21492

Ben Shapiro | August 21, 2024



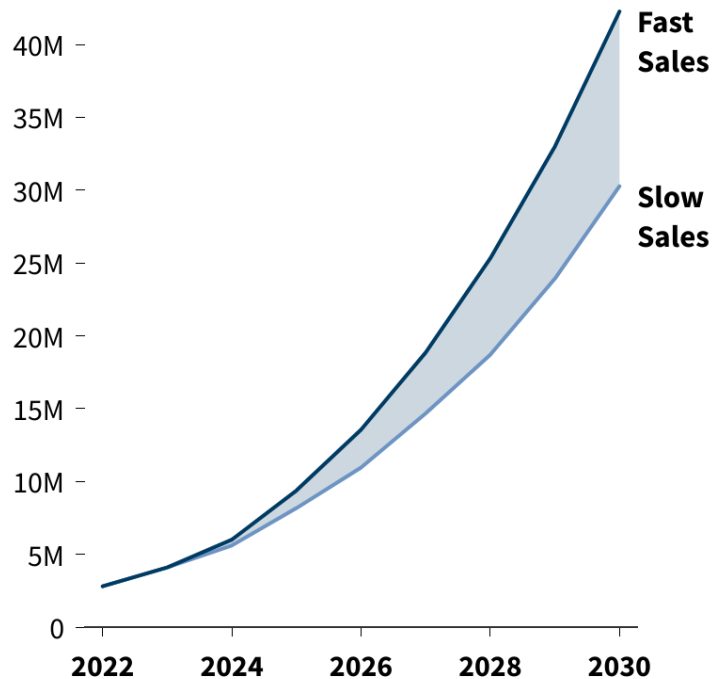
Understanding the Challenge

All signs point to rapid EV load growth.

Even lower-end estimates of EV adoption signal dramatic growth...

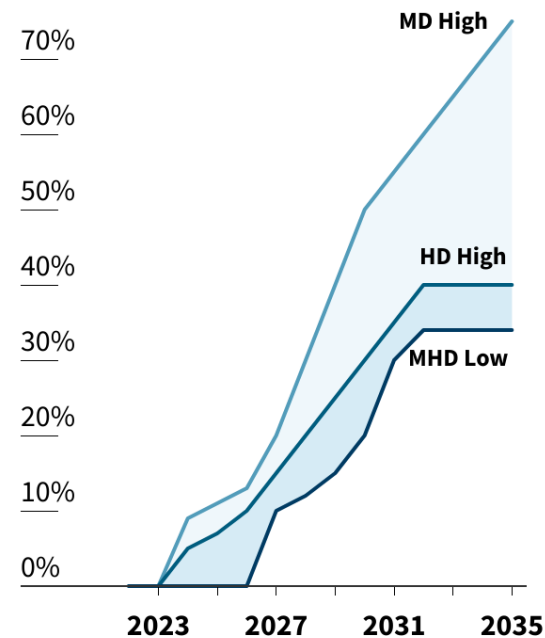
...with corresponding growth in energy and power needs.

Light-Duty EVs on US Roads



Source: NREL: "The 2030 National Charging Network"

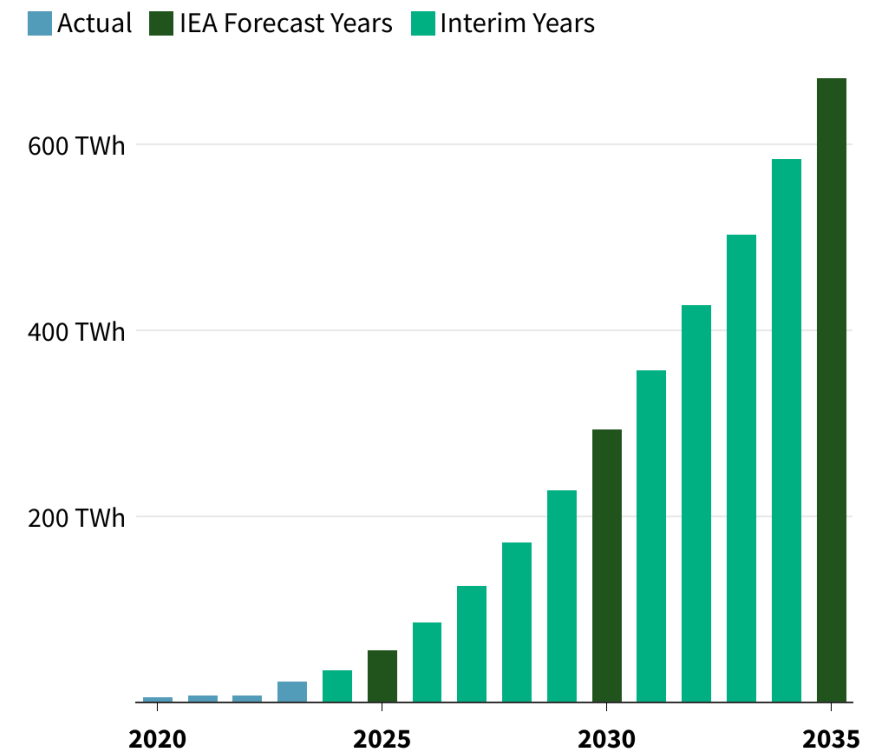
US Zero Emission Truck Sales Share



Source: RMI analysis

MD: Medium-duty | HD: Heavy-duty | MHD: Medium-/heavy-duty

Electricity Demand for On Road EV Charging in the US



Data from the International Energy Agency (IEA) Announced Policies Scenario.

Source: IEA Global EV Data Explorer

Why does this present a challenge?

The current planning and investment paradigm is **too slow to provide electric service** based on market expectations of EV load growth.

What are the root causes of this issue?

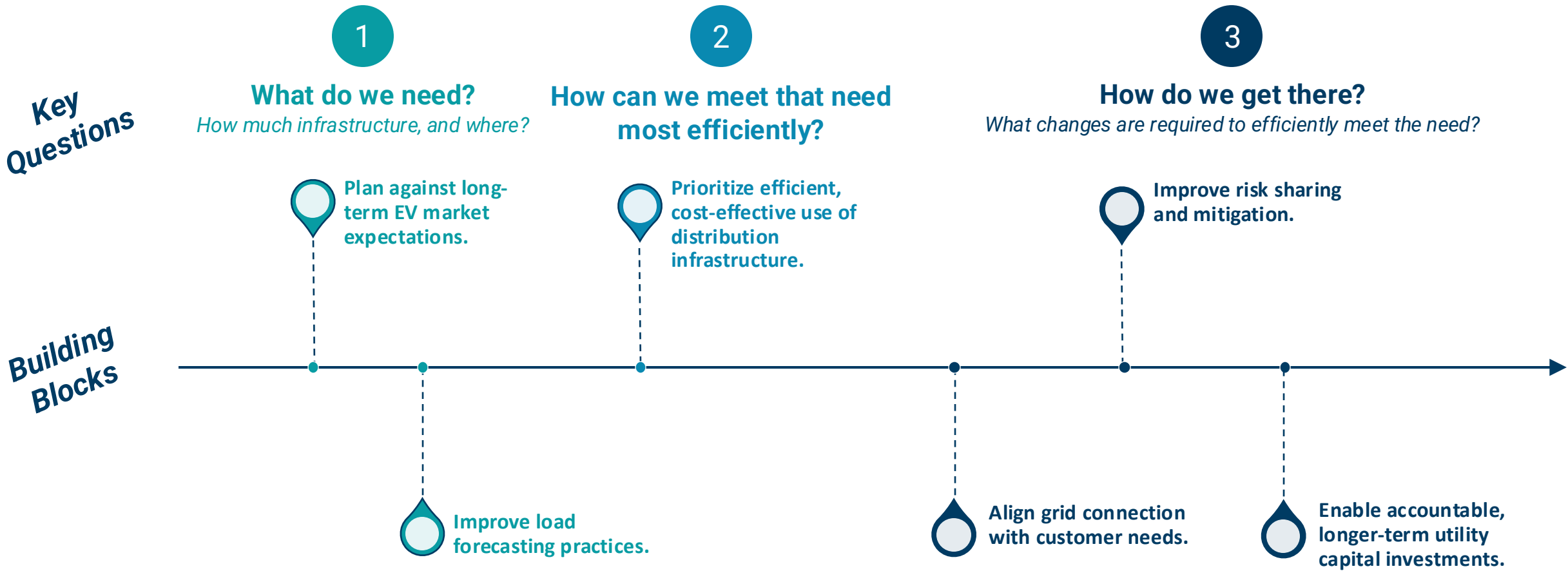
What are the implications?

| Root Cause | Implications – We Must... |
|---|--|
| <p>1. Significant Uncertainty </p> | <p>...reduce uncertainty to <u>increase confidence</u> and <u>improve decision-making</u>.</p> |
| <p>2. Existing Regulatory Paradigm </p> | <p>...move to a more <u>targeted, coordinated approach</u>.</p> |
| <p>3. Utility & Regulator Risk Aversion </p> | <p>...find ways to <u>mitigate</u> and <u>appropriately share risk</u>.</p> |



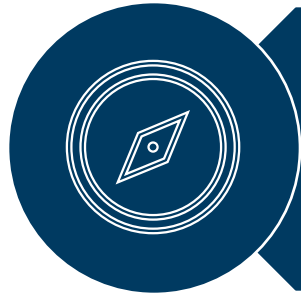
Meeting the Moment

Regulators and utilities must answer three critical questions to plan for EV load growth.



Three key areas regulators can focus on to support strong utility practices.

Leveraging existing tools in targeted ways can enable forward-looking EV planning and investment.



Set Grid Planning Guidance



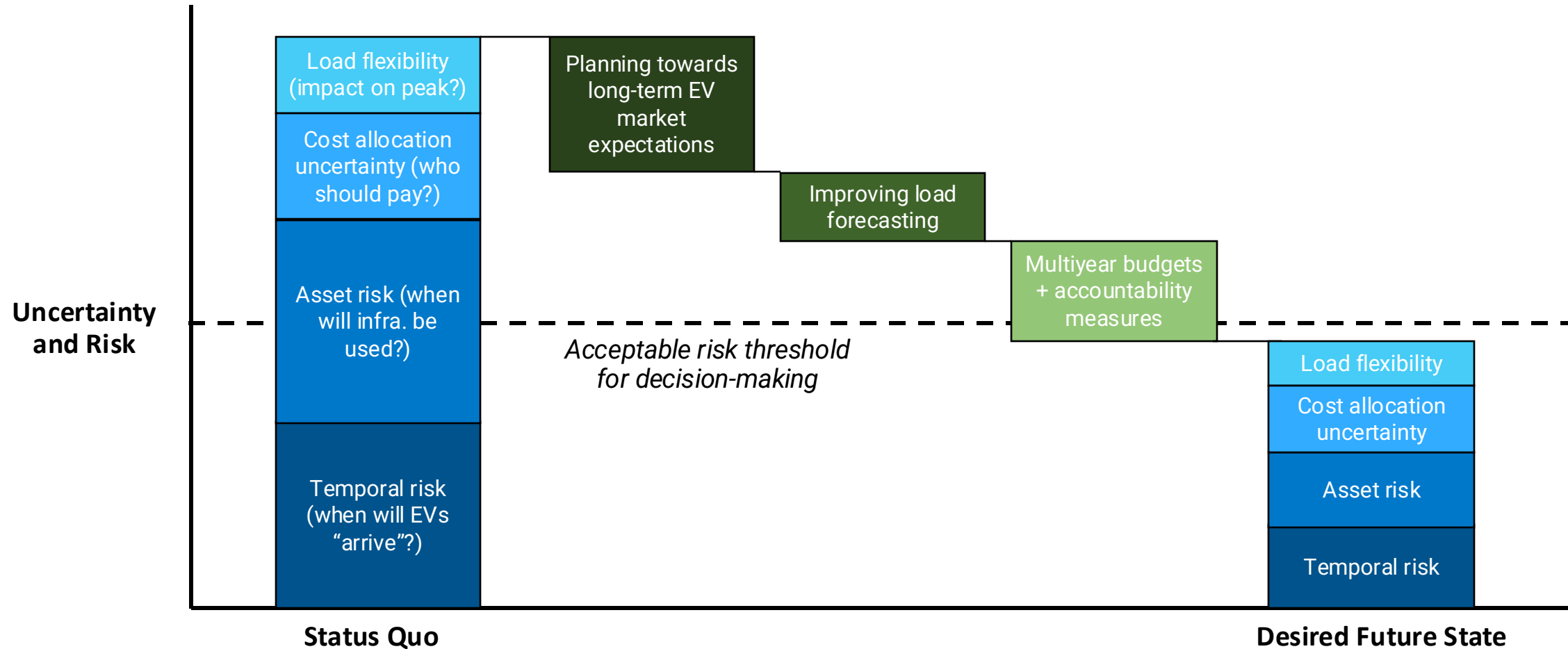
Establish and Track Desired Outcomes



Approve Appropriate Proactive Investment

Working together, regulators, utilities, and other stakeholders can reduce risk and uncertainty to acceptable levels.

Illustrative example





TE Plan Filing Requirements

Staff Proposal and Stakeholder
Comments

MPSC staff's proposal has many strengths, as well as several areas of opportunity

Strengths

Max. use of assets (load opt.)

Intentional alignment w/ DSP*

Strong BCA* practices

Focus on data collection

Stakeholder engagement

LMI* / underserved communities

Select examples

Opportunities

Scenario analysis

Methodological guidance + establishing common assumptions

Intentional alignment w/ IRP* and other planning exercises

Full resource valuation

Focus / reporting on energization timelines



Thank You!



Ben Shapiro
Manager, Transportation
bshapiro@rmi.org

Scan here for a digital copy
and feedback form on RMI's
concept note, *Transportation
Electrification Building Blocks*



Transportation Electrification Plan Guidelines (U-21492)

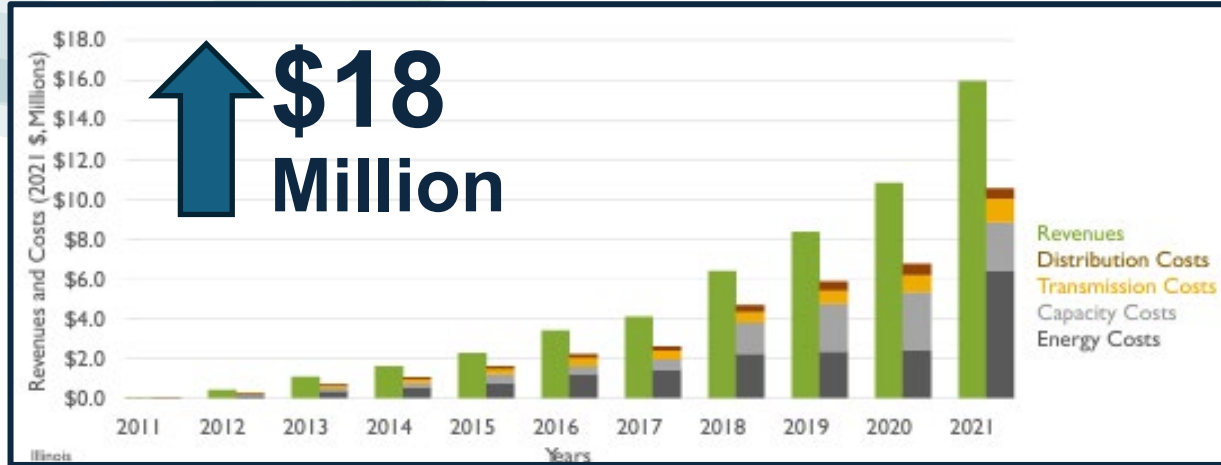
*Sophia Schuster, MBA and MSCM,
Policy Principal, Michigan EIBC*

Key Takeaways

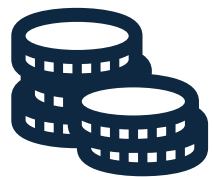
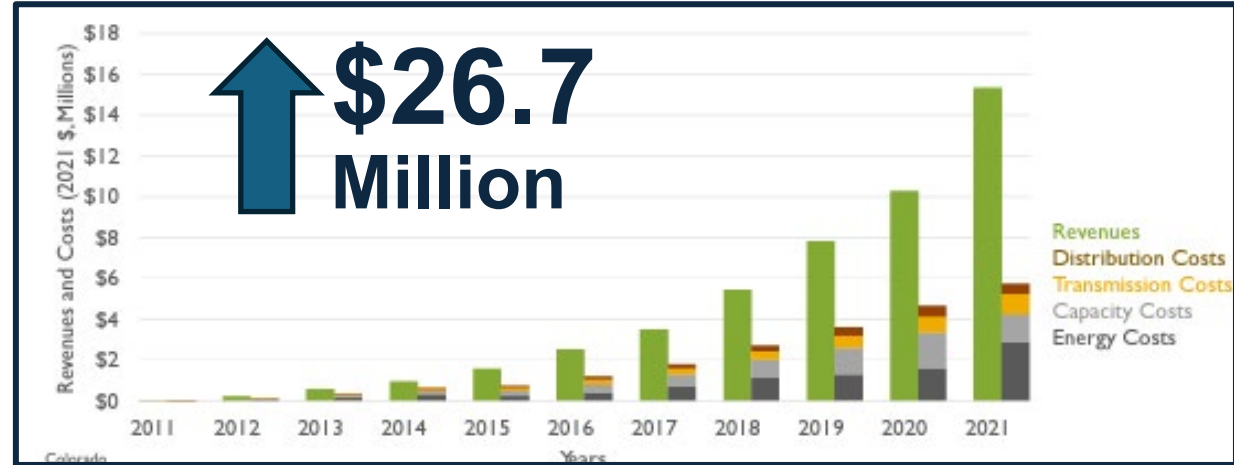
1. The **reinvestment of revenue attributable to increased EV charging in TE programs** is critical to enabling increased EV adoption and realizing maximum downward rate pressures for all ratepayers.
2. To fully capture the benefits of TE programs, the Commission should **allow for the consideration of multiple cost tests**, including the **Societal Cost Test**, in the BCA evaluation.
3. An appropriate TEP filing schedule that adequately **allows for stakeholder comment and for TEP findings to inform general rate cases**.

Revenue Reinvestment

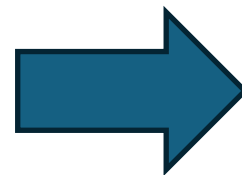
Illinois



Colorado



**EV Charging
Revenue
Reinvestment**



**More Downward
Rate Pressure for
ALL Ratepayers**

Turning Costs into Benefits

Quantification of Societal Costs

2010: The Federal Interagency Working Group (IWG) established the first Federal Social Cost of Carbon (SCC).

2016: The IWG published estimates for the social costs of methane and nitrous oxide.

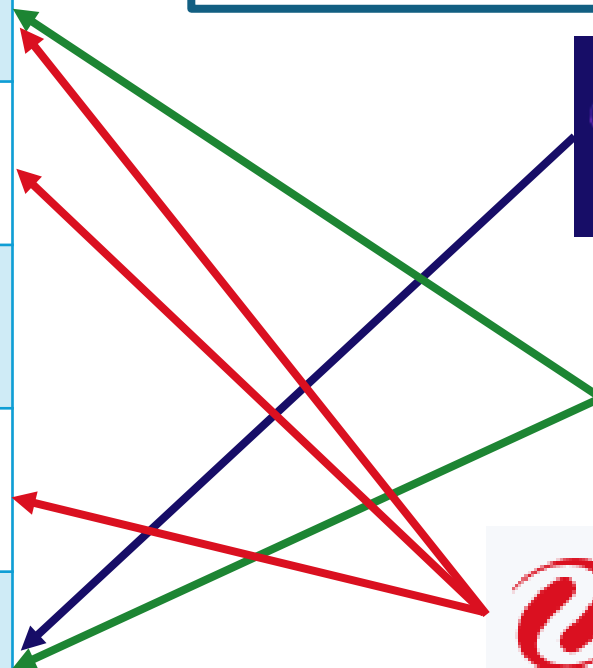
$$\downarrow \text{GHG Emissions} = (\text{ICE Emissions} - \text{EV Emissions}) \times \text{SCC}$$

Since its development, the SCC has been recognized by federal agencies, state legislatures, and public utility commissions.

Societal Benefits in Cost Tests

Cost Tests

| | |
|----------------------------|------------|
| Utility Cost Test | UCT |
| Ratepayer Impact Measure | RIM |
| Participant Cost Test | PCT |
| Jurisdiction-specific Test | JST |
| Societal Cost Test | SCT |
| Total Resource Cost Test | TRC |





Filing Timelines

Key Takeaways

1. The **reinvestment of revenue attributable to increased EV charging in TE programs** is critical to enabling increased EV adoption and realizing maximum downward rate pressures for all ratepayers.
2. To fully capture the benefits of TE programs, the Commission should **allow for the consideration of multiple cost tests**, including the **Societal Cost Test**, in the BCA evaluation.
3. An appropriate TEP filing schedule that adequately **allows for stakeholder comment and for TEP findings to inform general rate cases**.



DTE Transportation Electrification Plan (TEP)

Comments on the Staff's proposed TEP filing
requirements

August 21, 2024

Using guiding principles and stakeholder feedback, DTE developed a TEP participation framework identifying the customers' charging sub segments

Guiding principles

- Support and accelerate EV adoption by facilitating charger deployment while maintaining affordability benefits for all DTEE customers at the portfolio level
- Consider unique reasons for utility participation such as closing charging gaps, minimizing grid impacts, and improving economics of electrification in the near-term
- Promote equity with a focus on low-income customers and disadvantaged communities

Participation Framework

| Key Segments | Sub-segments | Share of market |
|----------------------|--|-----------------------|
| Single-Family Homes | Low-income (LI) | 100% |
| Multi-Unit Dwellings | Affordable housing | 90% |
| | Non-LI | 45% |
| Public | DAC ¹ /rural on-route DCFC ² | 35% |
| | Other on-route DCFC | 35% |
| Fleet | Private | 90% |
| | Transit and Schools | 30%-100% ³ |

DTE proposes to offer a rebate to eligible customers segments above to help offset a portion or all of the infrastructure costs including utility make-ready (UMR), customer make-ready (CMR), and charger ownership

1. Disadvantaged Communities
2. Fast chargers within one mile of a major throughway and in designated disadvantaged communities and/or rural areas
3. 30% of school bus (100 rebates), 50% of private DCFC (285 rebates), and 100% of transit bus (33 rebates) supported

The Company is supportive of most of the proposed TEP filing requirements

- **Adoption and Managed Charging**

- Values the Staff’s focus on maximizing EV benefits while minimizing costs and supports incorporating project learnings and relevant information from other transportation electrification investments as proposed in Requirement 6 (c)

- **Equitable Access and Strategic Approach**

- Commends the Staff’s strategic approach with Requirement 6 (u) towards expanding transportation electrification among low-income populations

- **Coordination with Federal and State Funding**

- Values the Staff’s proposed coordination approach with Requirement 6 (w) and with federal and state EV infrastructure planning

- **Efficient Integration**

- Interprets the Staff’s focus on how transportation electrification can support the efficient integration of new load as a recognition of the need for cost-effective solutions that balance the benefits of EV integration with the financial sustainability of utilities

- **Market Barriers**

- Appreciates the Staff’s acknowledgement with Requirement 6 (f) that barriers do exist to the adoption of EVs, some of which the Company can address, and others that are beyond its control

- **Education & Outreach**

- Commends the Staff’s emphasis on education and outreach Requirement 6 (g) and believes that these initiatives, including advisory services, are crucial in raising awareness about the benefits of EVs and encouraging their adoption

DTE Electric cautions that some of the proposed TEP filing requirements will necessitate extensive data collection and IT investments, potentially increasing costs

- **Public Charging Stations Data**

- Staff Filing Requirement 6(g) aims to provide insights into public charging station usage. However, it poses challenges in terms of data availability, data cleaning efforts, and potential misunderstanding of the data

- **Equitable Access Data**

- Staff Filing Requirement 6(u)(iii) aims to promote equitable access to charging infrastructure. However, there are specific challenges in terms of data availability, accuracy, and mapping effort

- **Data Tracking and Privacy**

- Staff Filing Requirement 9(xi) aims to provide insights into the impact of TEP programs. However, it poses challenges in terms of data tracking, system flagging, and data privacy

- **Distribution Impacts**

- The Company suggests merging the proposed Filing Requirements (6)(d), (m), and (n), which focus on the electric company's system and distribution grid impacts

- **Rate Design Challenges**

- Ratemaking and rate design require considerations beyond support for a specific technology or end purpose, such as electric vehicles or “grid stability and resilience” and are more appropriately discussed in a broad proceeding such as a general rate cases

- **Cost-Benefit Analysis**

- Cost-benefit analysis should remain at a portfolio level to provide a more holistic view of the utility's EV efforts and their impacts

U-21492 Transportation Electrification Plan Filing Requirements

Interested Parties
Meeting

**Al Freeman, Michigan Public
Service Commission Staff**

August 21, 2024

U-21492 TEP Filing Requirements History

1. Staff filed proposed filing requirements on July 2, 2024.
2. Consumers Energy, DTE Electric, the Ecology Center/Vote Solar, and the Michigan Energy Innovation Business Council/Advanced Energy United filed initial comments on July 22, 2024.
3. Consumers Energy, the Ecology Center/Vote Solar, Ford Motor Company, Michigan Electric and Gas Association (MEGA), and Michigan Public Service Commission Staff filed reply comments on August 12, 2024.

U-21492 TEP Filing Requirements

Critical Issues: TEP Process

1. What should be the TEP Procedural Process going forward?
2. What is the best way to include important, but non-traditional MPSC interested parties in the TEP process?
3. What is the best process for TEP participation?
4. What is the best timeline for TEPs going forward?
5. How should the existing TEPs be treated?

U-21492 TEP Filing Requirements

Critical Issues: TEP Substance

1. Reporting requirements and IT spend. What is currently possible?
2. What is the appropriate cost benefit analysis for TEPs?
3. How should societal benefits be factored into TEPs?
4. Should the MPSC develop benchmarks for future reports?
5. What should be included in the TEP reporting requirements?
6. What is the best way to address equity issues?
7. What should the load forecast include?

U-21492 TEP Filing Requirements

Critical Issue: Additional TEP Issues

1. Smaller Utility Waivers?
2. Should Rate Design be considered in TEPs?
3. What is the correct dynamic between Distribution Plans ([U-20147](#)) and TEPs?

U-21492 TEP Filing Requirements

Critical Issues: Annual Report

1. What should be included in the Annual Reports?



Al Freeman

Michigan PSC Staff

GET IN TOUCH

— ...



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