

NARUC Electric Vehicles State Working Group

PUBLIC CHARGER ENERGIZATION

SEPTEMBER 29, 3:00 - 4:30 PM ET

Welcome

EV SWG Chair

Commissioner Staci Rubin, Massachusetts Department of Public Utilities

EV SWG Vice Chair

Seeking interested member(s)

EV Commission Staff Leads

Benjamin Baker, Maryland Public Service Commission

Steve Olea, Arizona Corporate Commission

NARUC Staff

Margerie Snider

Danielle Sass Byrnett

Agenda

*Feel free to enter
questions into chat at
any time*

3:00 PM	Welcome and Announcements: Commissioner Rubin • Agenda review
3:05 PM	Speakers: • Ben Sharpe, Atlas Public Policy • Frank Tuffner, Pacific Northwest National Laboratory
4:05 PM	Member Discussion
4:30 PM	Adjourn

Next EV SWG Meeting:

*Tues, Oct 27 at 3pm:
Distribution Upgrade Options*

Today's Speakers

- **Ben Sharpe**, Atlas Public Policy
- **Frank Tuffner**, Pacific Northwest National Laboratory



COST SAVINGS FROM IMPROVING ENERGIZATION TIMELINES FOR EV CHARGING

NARUC EV State Working Group

Ben Sharpe, PhD

September 29, 2026



OUTLINE

- 1 The Challenge:** Energizing EV charging stations often takes too long
- 2 The Cost of Delay:** What is a faster energization timeline worth?
- 3 What Works:** Best practices from stakeholder interviews
- 4 Takeaways:** What this means for utility commissions and state agencies



Read the full report: atlaspolicy.com/cost-savings-from-improving-energization-timelines-for-ev-charging

01

THE CHALLENGE

Energizing EV charging stations often takes too long

1

THE CHALLENGE

2

THE COST OF DELAY

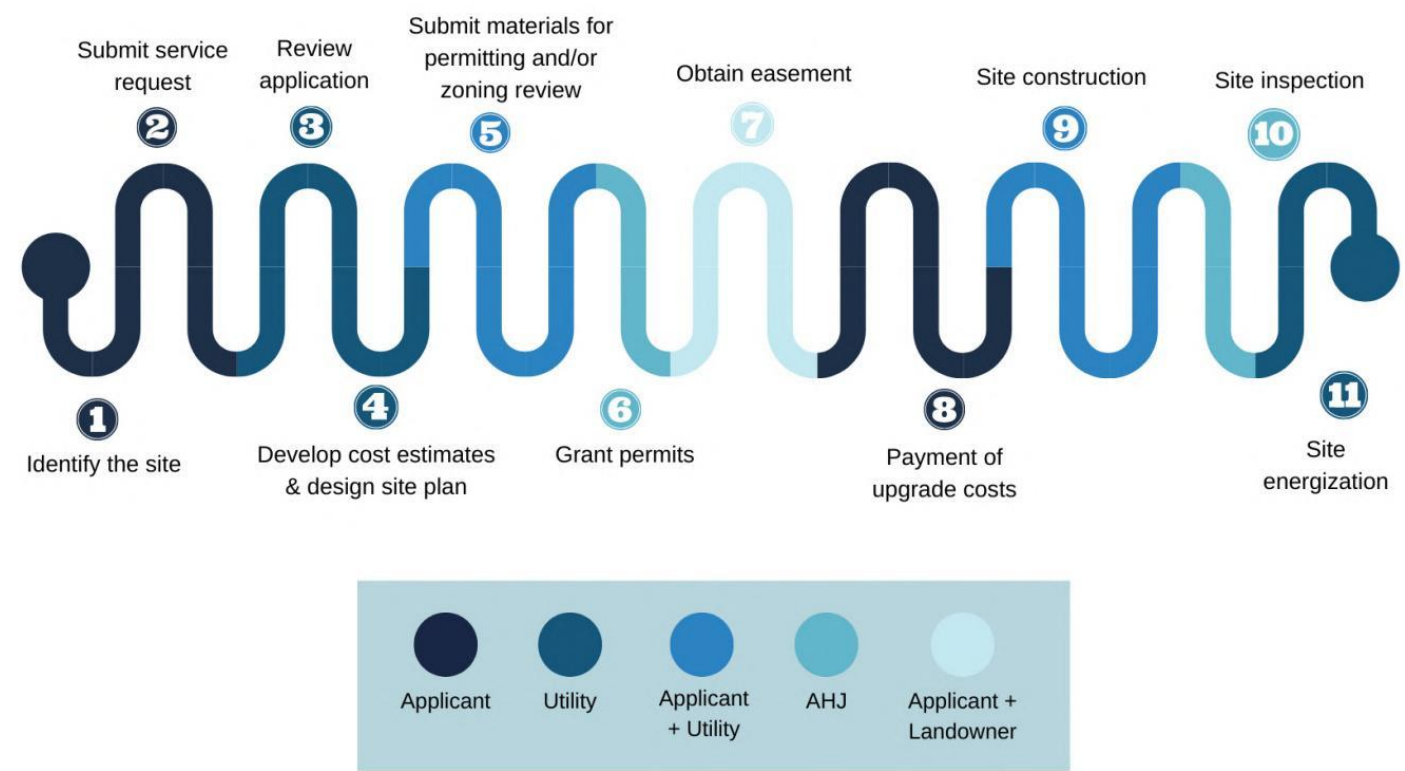
3

WHAT WORKS

4

TAKEAWAYS

ENERGIZATION CAN TAKE YEARS



Energization timeline for an EV charging station (IREC)

California IOUs, 2024

950+ days

median time from application to utility activation

SDG&E	1,106 days
PG&E	989 days
SCE	959 days

Sources: IREC (2022); Cadmus Group & CLEAResult Energetics (2025)

02

THE COST OF DELAY

What is a faster energization timeline worth?

1

THE CHALLENGE

2

THE COST OF DELAY

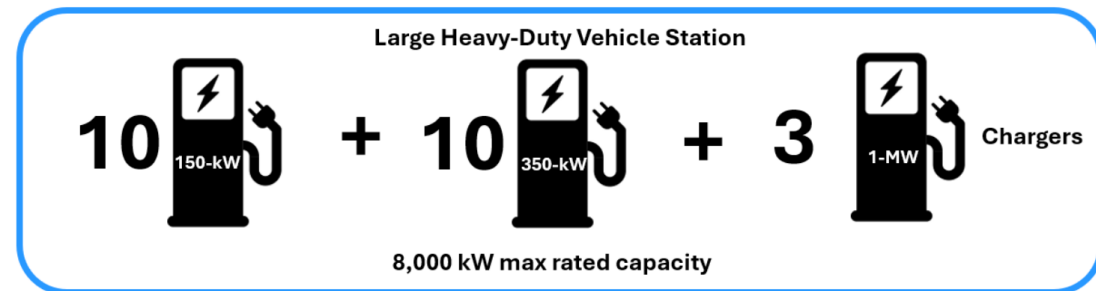
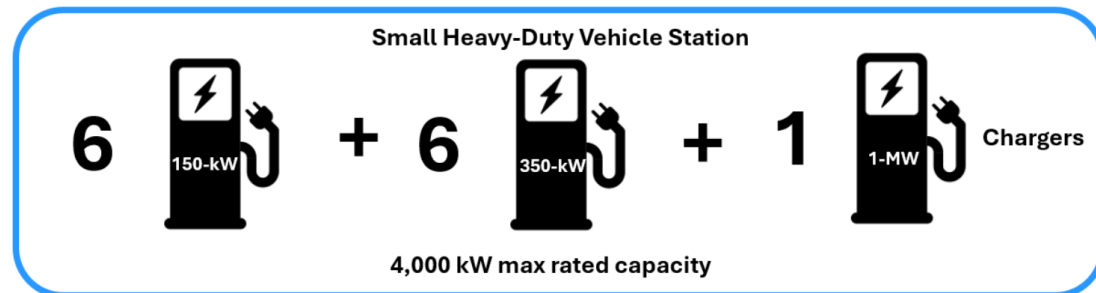
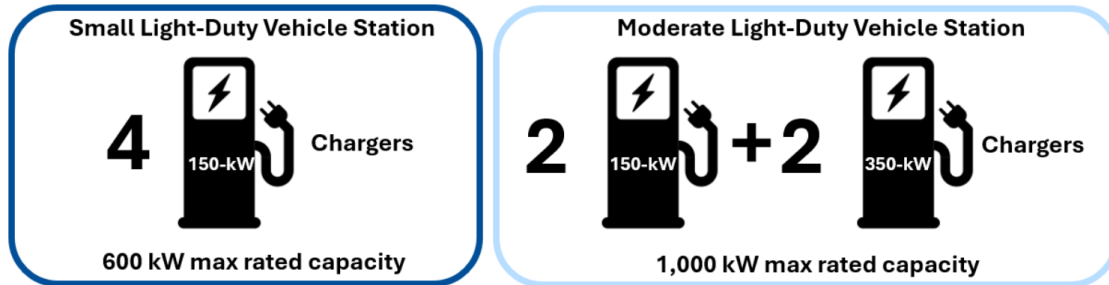
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WHAT WORKS

4

TAKEAWAYS

FOUR STATIONS, THREE SOURCES OF VALUE



Avoided deployment costs

Project management, financing, permit and storage costs that pile up while a project waits



Accelerated revenue

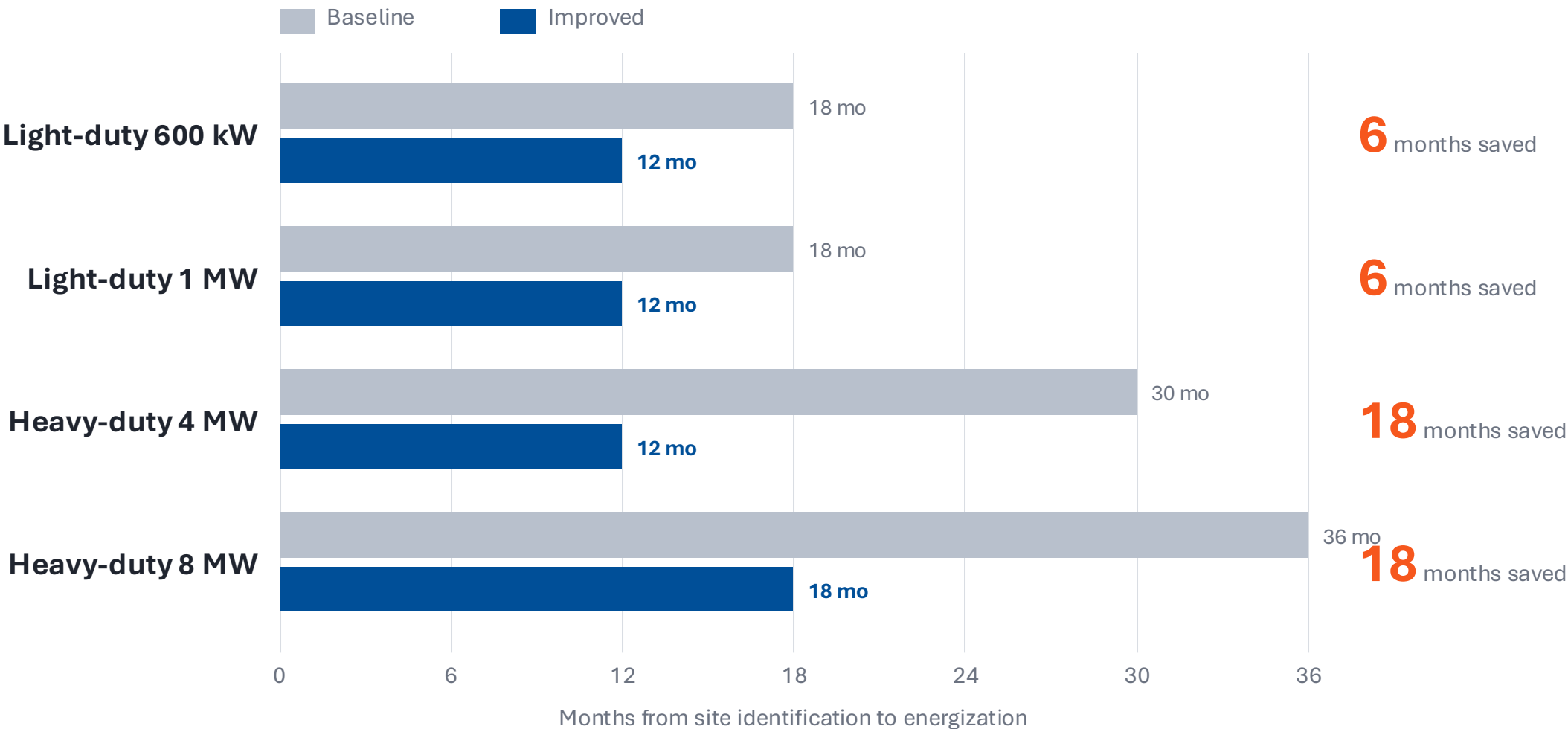
The station starts selling electricity sooner



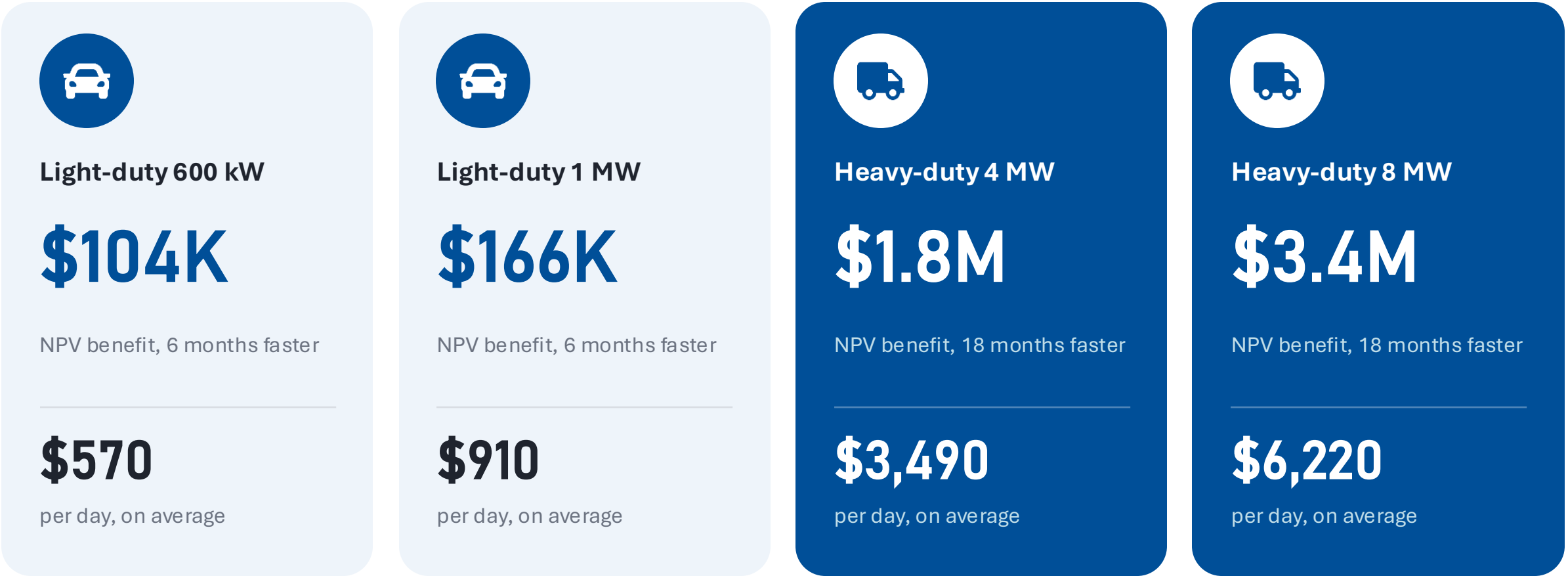
Health benefits (HDV only)

Diesel emissions displaced sooner

BASELINE VS. IMPROVED TIMELINES



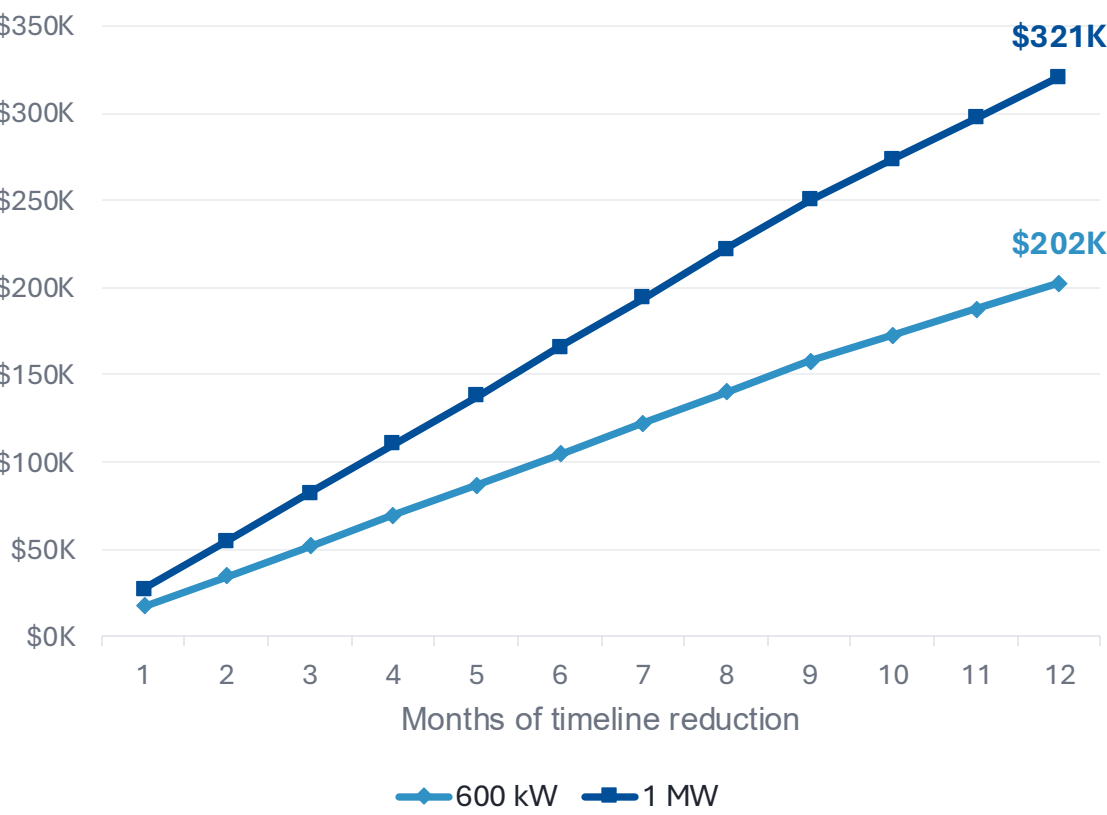
ENERGIZATION DELAY HAS A STEEP PRICE



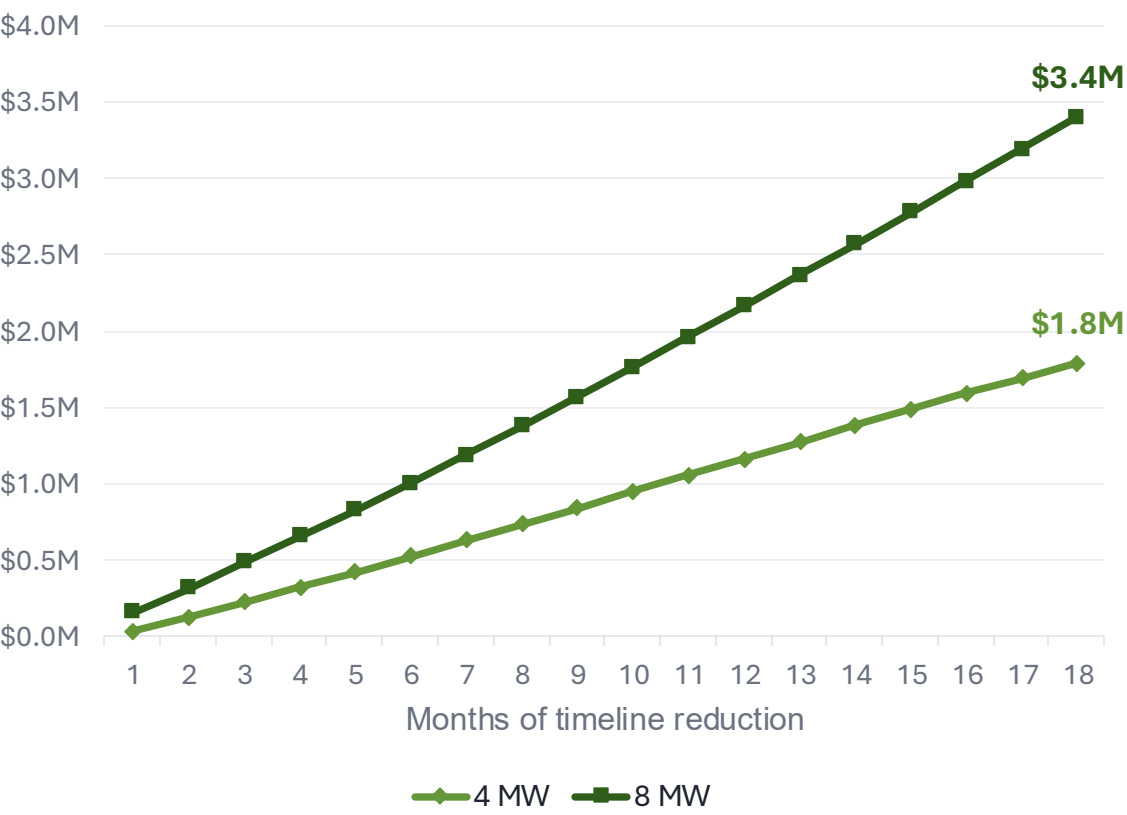
Gross benefits per station; they do not subtract the cost of making timelines faster.

BENEFITS GROW WITH EVERY MONTH SAVED

Light-duty stations

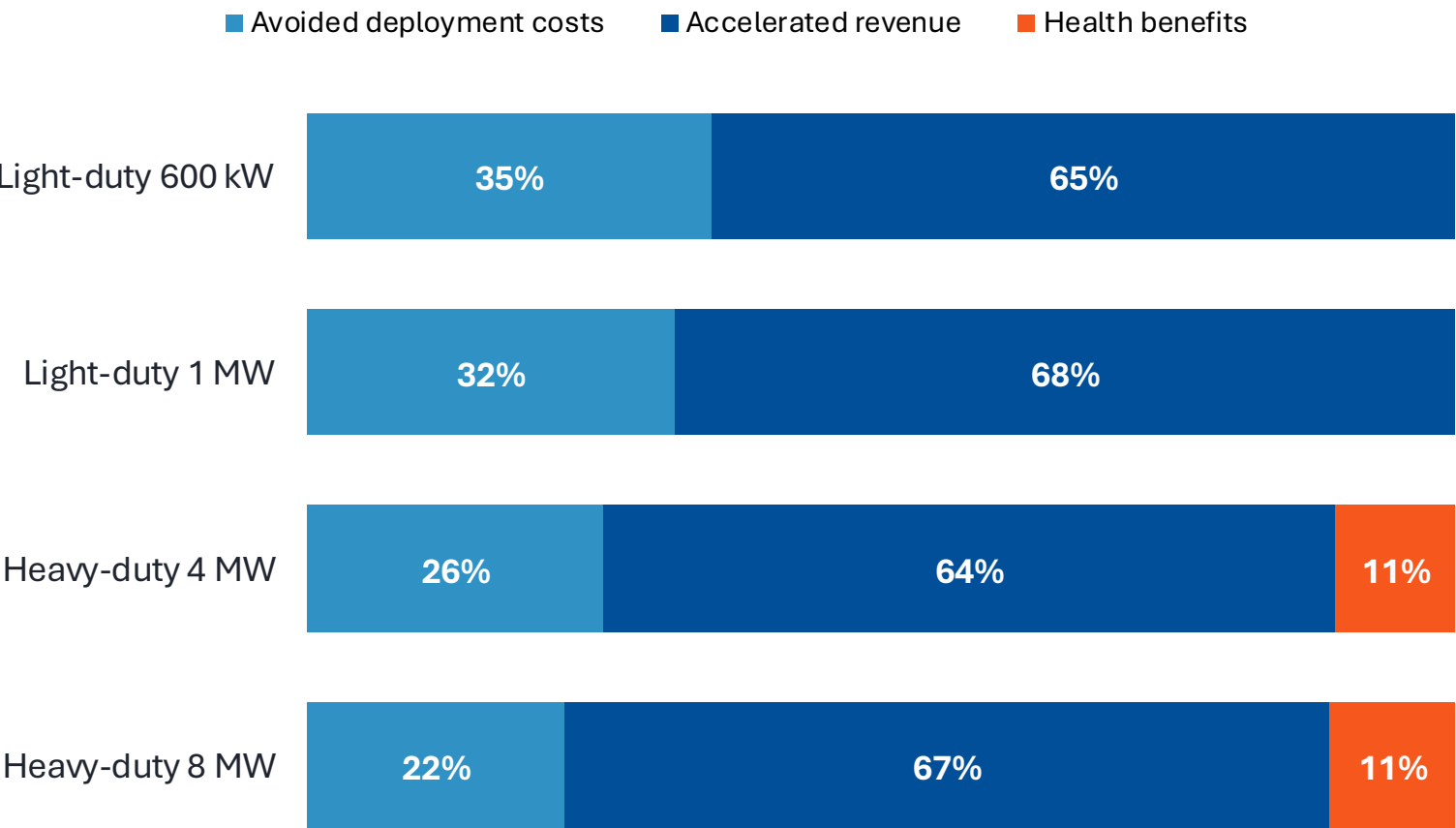


Heavy-duty stations



Cumulative NPV of benefits over a 5-year economic forecast period

FASTER REVENUE IS THE BIGGEST DRIVER



64–72%

of benefits come from a station earning revenue sooner

\$200K–\$375K

in health benefits per HDV station from displacing diesel sooner

Share of total per-station NPV benefit, base case (paper Table 2). LDV health benefits conservatively set to zero.

03

WHAT WORKS

Best practices from stakeholder interviews

1

THE CHALLENGE

2

THE COST OF DELAY

3

WHAT WORKS

4

TAKEAWAYS

BEST PRACTICES: STREAMLINE THE PROCESS



01

Streamline permitting & easements

- Standardize permit language across jurisdictions
- Publish energization guides
- Track permitting and easements as separate phases



02

Improve utility processes

- Dedicated EV intake, design & construction teams
- Desk reviews instead of full studies
- Quick pre-application feasibility checks



03

Use existing capacity & DERs

- Tap off-peak capacity at existing sites
- Batteries & microgrids to bridge power gaps
- Coordinate utility DER and EV teams

BEST PRACTICES: ALIGN POLICY, DATA & RISK



04

Set clear policy & regulatory signals

- Make-ready tariffs & flexible connections
- Enforceable energization timelines
- Cross-agency coordination (air, energy, transportation)



05

Make grid data transparent & standard

- Frequently updated hosting capacity maps
- A common data standard across utilities
- Consistent definitions of project phases



06

Account for dropout risk & opportunity costs

- Project dropout: 6–14% typical, up to 90%
- Sunk costs even at the design stage
- Ripple effects on fleets, automakers & grants

QUICK WINS AND BIGGER LIFTS



Quick wins

Mostly organizational focus; modest cost

- Publish energization guides
- Map the customer journey to find friction points
- Dedicated EV intake teams from existing staff
- Standardize permitting language



Bigger lifts

More staffing and investment

- Develop and maintain hosting capacity maps
- Deploy bridge-to-wires solutions (flexible and phased connections, on-site storage)

Data gap: Little public data exists on what timeline improvements cost. Utility commissions can help close this gap.

04

TAKEAWAYS

What this means for utility commissions and state agencies

1 THE CHALLENGE

2 THE COST OF DELAY

3 WHAT WORKS

4 TAKEAWAYS

THREE TAKEAWAYS FOR COMMISSIONS

1

Delay has a measurable price

\$570 to \$6,220 per station, per day

2

Stakes are highest at big sites

Heavy-duty depots and multi-MW plazas

3

Targets, standards & reporting

Clear timelines, shared definitions, public tracking





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Speaker Q&A

- **Ben Sharpe**, Atlas Public Policy

EV Charging Infrastructure Energization: Accelerating Load Service Requests

September 29, 2026

Frank Tuffner
Research Engineer

BATTELLE

PNNL is operated by Battelle for the U.S. Department of Energy



Caveats

- Report was written at the end of 2024
- Not a current priority for the offices originally involved
- “Dangerous words”

EV Charging Infrastructure Energization: An Overview of Approaches for Simplifying and Accelerating Timelines to Processing EV Charging Load Service Requests

INL/RPT 24-82618
PNNL-37179

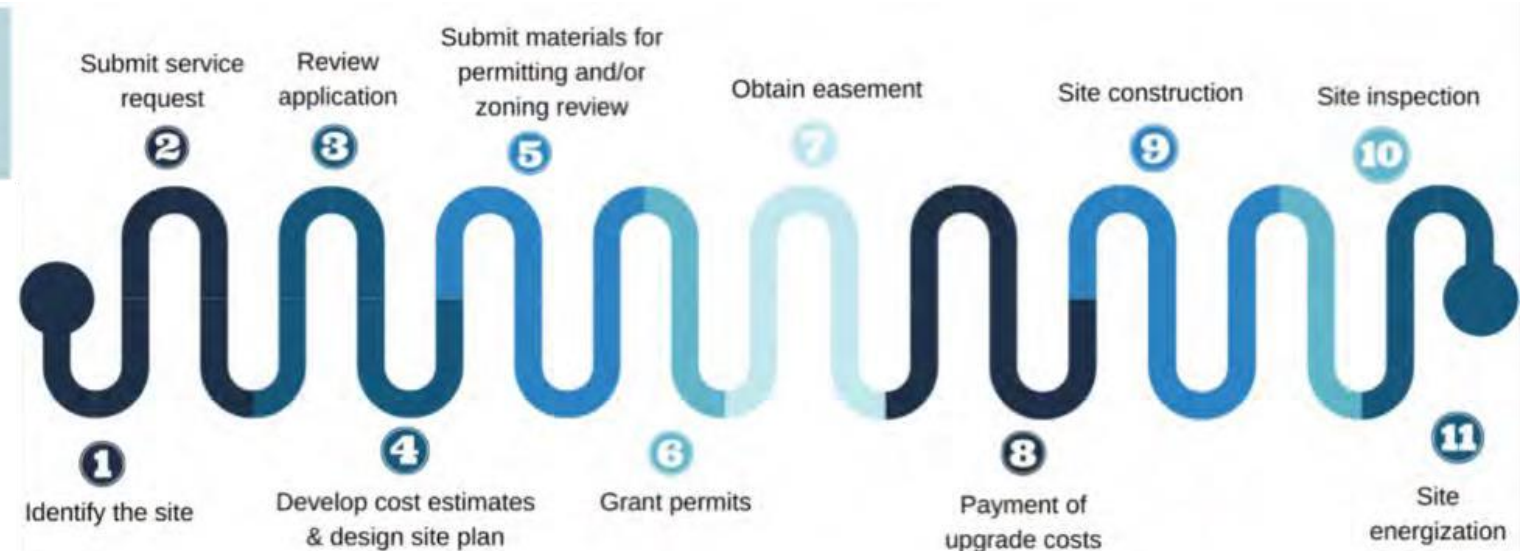
JANUARY 06, 2025

Dhananjay Anand,
Fernando Salcedo,
Sejal Shah, and
Frank Tuffner

Idaho National Laboratory

Background

- Complementary effort to the I2X initiative
 - I2X focused on interconnections (generation)
 - Streamline the process
- NEVI deployments were underway



Increased Data Access and Transparency

- Proactively Establish and Maintain Load Service Request Tools to Perform Repeated Studies for Integration of Large Electric Loads
- Integrate Host Capacity and Load Service Request Analyses and Queues
- Incorporate EV Adoption Forecasts, Charging Load Profiles, and Utilization into Distribution Planning
- Provide Transparency About the State of the Processing Queue for Both Load Service Requests and Interconnection Applications

Improving Energization Process and Timing

- Create New or Expand Existing Fast-Track Options Based on Prescreening Criteria
- Create Flexibility in the Load Service Request/Interconnection Process
- Build Internal Knowledge Base for EVs and EV Charging Infrastructure
- Regulatory Support to Coordinate with Utilities on Timely Integration and Energization of EV Charging Infrastructure
- Workforce Training and Support

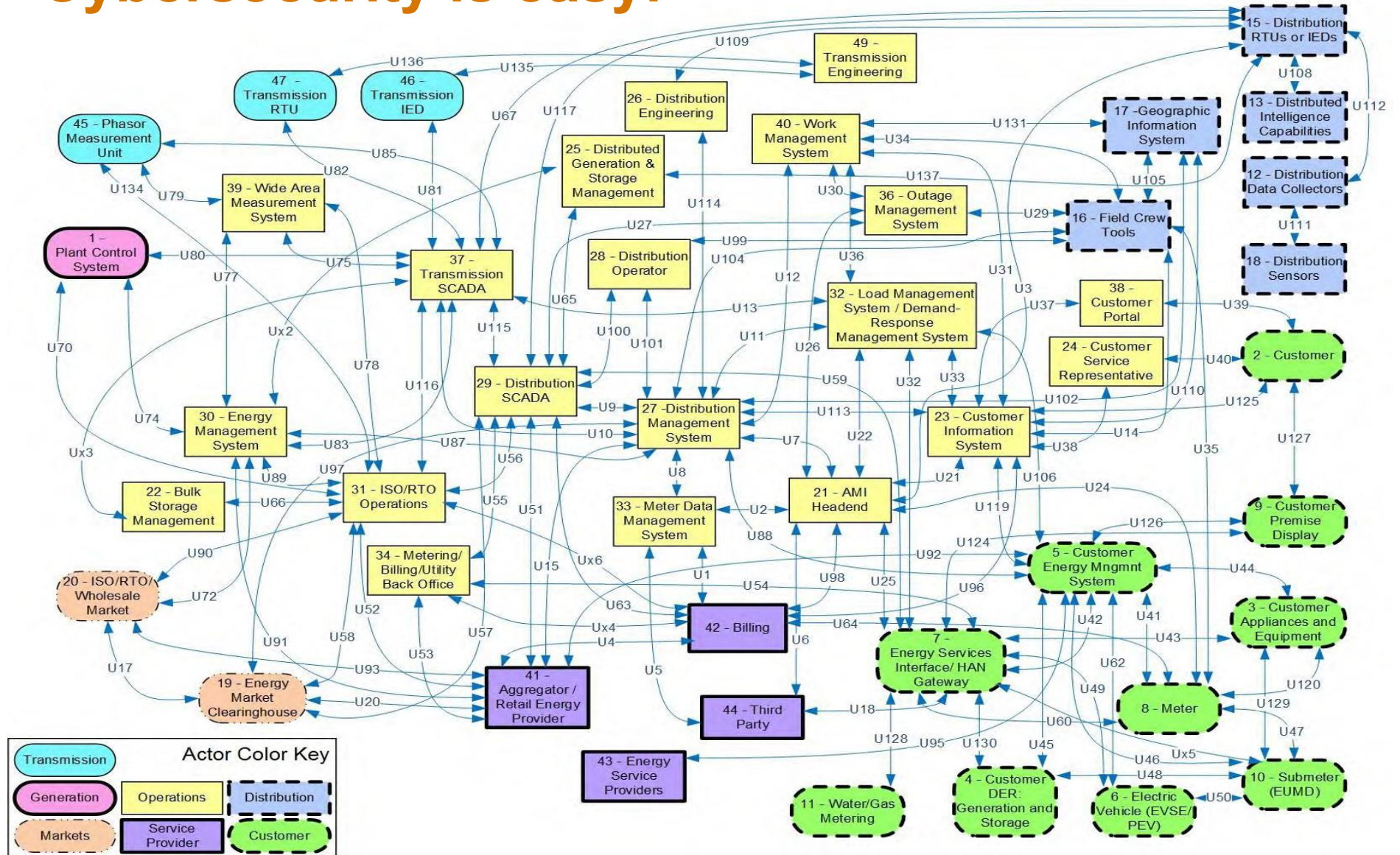
Promoting Economic Efficiency in Planning

- Rightsizing Distribution Components
- Proactive Investments
- Tie Grid Investments to EV Forecasts
- (Redacted – “trigger words”)

Improving Grid Reliability and Resilience

- Load Management/Power Control Systems to Specify Nameplate Rating
- Adopt and Implement Harmonized Standards to Manage EV Charging Load Across All EV-Grid Communication Pathways
- Cybersecurity Considerations for EV Load Service Requests

Cybersecurity is easy!



Best Practices Observed

- Leverage prior examples
 - NEVI-related procurement and governance language
 - State filings (primarily California)
 - Standards requirements for interoperability
- Storage considerations – how the utility treats it or plans for it
- Deployments – incentivizing “forward thinking” may be useful
 - Larger and separate conduits
 - Site layout for potential future uses (e.g., pull-through)
 - Get all AHJs talking early – lots of things are easier to consider at the planning stage



If you have any
questions, feel free to
email.



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<https://www.osti.gov/biblio/2496574>

Speaker Q&A

- **Ben Sharpe**, Atlas Public Policy
- **Frank Tuffner**, Pacific Northwest National Laboratory

Member Discussion Questions

1. What is the status of your state's public charger energization rollout?
2. What issues are you encountering in deploying public charging?
3. Does your state follow any of the best practices mentioned in the presentations? If not, which do you find most practical or useful?

Next EV SWG Meeting

Distribution Upgrade Options
October 27, 3:00-4:30 pm ET

FIND ALL PAST RECORDINGS AND
PRESENTATIONS (*NEW URL*):

[WWW.NARUC.ORG/CORE-
SECTORS/LOAD-GROWTH-AND-
CUSTOMERS/ELECTRIC-VEHICLES/](http://WWW.NARUC.ORG/CORE-SECTORS/LOAD-GROWTH-AND-CUSTOMERS/ELECTRIC-VEHICLES/)