



Electricity Resiliency and Availability

July 11, 2023



IN PARTNERSHIP WITH



DEPOTS Electric Truck Bootcamp Series

1. **Best Practices for Utility-Fleet Relationships** (April 25th) ✓
2. **Grants and Incentives for the Trucks and Infrastructure** (May 16th) ✓
3. **Electric Truck Developments** (May 30th) ✓
4. **Faster Charging — Opportunities and Challenges at 350KW and higher** (June 13th) ✓
5. **Opportunities to Extend BEV Range** (June 27th) ✓
6. **Electricity Resiliency and Availability** (July 11th)
7. **Current and Future Regulations for Zero Emission Trucks** (July 25th)
8. **Managed Charging to Improve Availability, Cost and Range** (August 8th)
9. **Scaling Charging Infrastructure Equipment** (August 22nd)
10. **Electric Depot Site Planning and Construction** (September 5th)

2021 Bootcamp is still available at: <https://runonless.com/electric/bootcamp-electric/>



Up Next: Current and Future Regulations for Zero Emission Trucks

July 25, 2023 1:00p ET



Adam Browning

*EVP Policy & Communications
Forum Mobility*



John Mikulin

*Mobile Source Sub-Lead
Coordinator
U.S. EPA*



David Treichler

*Director of Strategy and
Technology
Oncor Electric Delivery*



Ann Xu

*Co-Founder and CEO
ElectroTempo, Inc.*

2023 DEPOT Fleets

Update from The Run Planning...



Follow the Fleets, Drivers, OEMs, EVSEs, Utilities
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Today's Bootcamp Sponsor

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Quiz for Today's Session

Completing Today's Quiz:

- Go to runonless.com and click back into the session
- Click 'Take Quiz' button
- Create username and password to keep track of your progress
- Spend a few minutes answering the questions and receive your 2023 RoLE - DEPOT badges



Today's Bootcamp Speakers

Electricity Resiliency and Availability



Amanda Farthing

Research Engineer
National Renewable Energy
Laboratory (NREL)



Adam Young

*Director, Utility Finance and
Rates Consulting*
1898 and Co.



Michael Ward

Vice President
Pacific Solar



Hosted by:

Ari Kahn

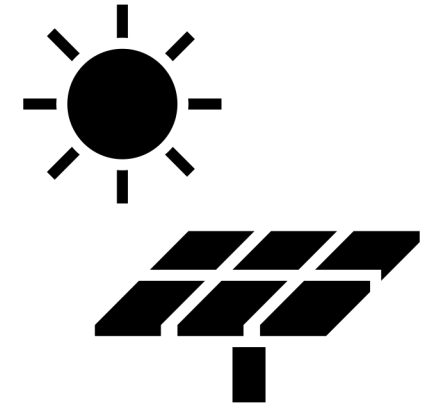
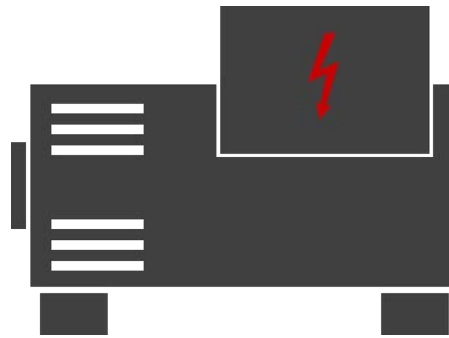
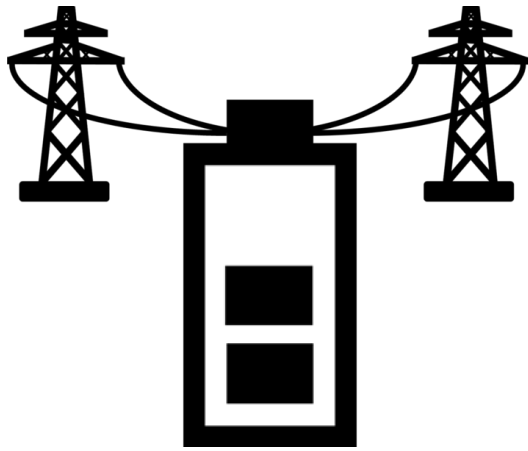
Carbon Free Transportation Manager, RMI



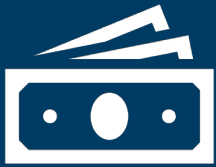


RMI – Energy. Transformed.

Resilience and Distributed Energy



The Three Values of Distributed Energy



Financial

DERs can **lower demand charges** and help fleets **avoid using grid electricity at peak rates**

Applicability: Fleets with high demand charges

Setup: Battery and solar



Resilience

DERs can **provide electricity during power outages**, allowing fleets to maintain operations

Applicability: Fleets with significant power outage concerns

Setup: Generator, Battery, Solar



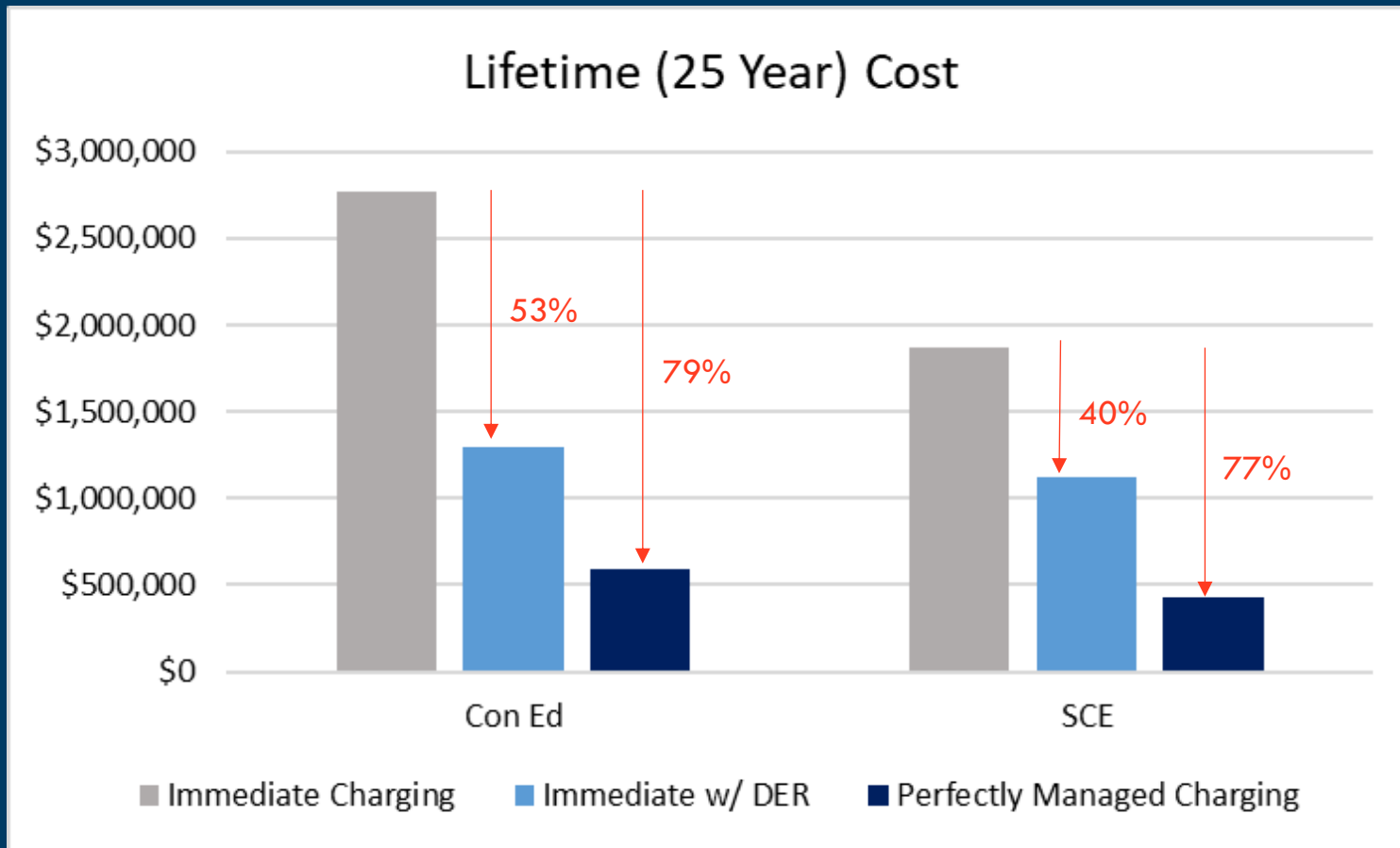
Peak Reduction

DERs can **lower peak demand on grid** to stay below existing grid constraints or minimize upgrades

Applicability: Fleets in locations without adequate grid infrastructure or where the customer pays for the grid connection

Setup: Battery and solar

Managed Charging creates the biggest savings*

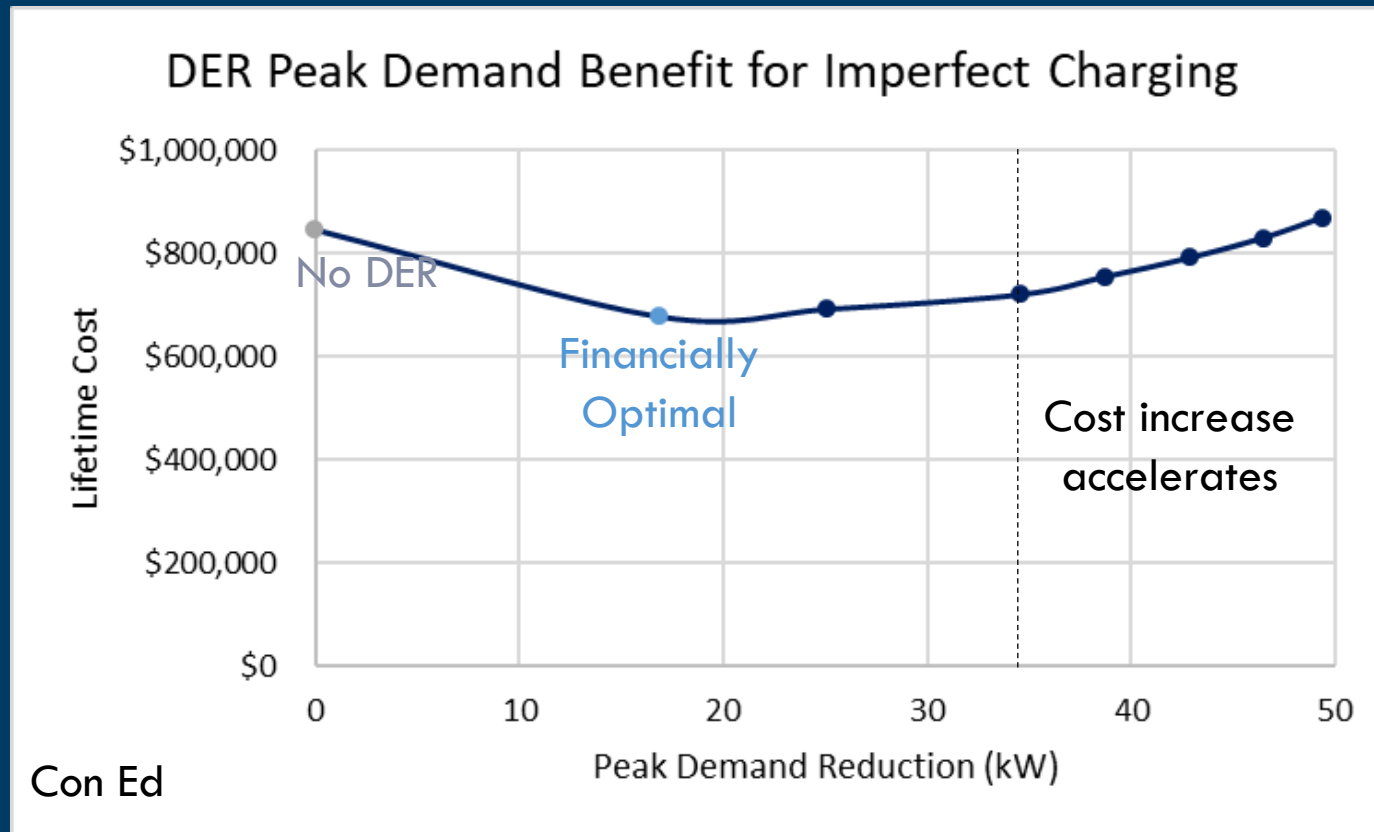


RMI used NREL's REopt tool to look at energy costs based on various charging patterns.

Managed charging saves a lot of money, *if* overnight electricity is cheaper.

In California, it can be 3.2x cheaper to charge off-peak

Data can provide confidence for good choices



Greater Battery Storage





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