Transportation and Innovation Expo:
Best Practices for Transitioning to Electric Vehicles and Managing Load

Scott Lepold - Partner Account Manager, EV Ecosystems
• Founded in 2007
• Specialize in Electric Vehicles:
  • Transitioning fleets from ICE vehicles to Evs
  • Monitoring Evs
  • Managing EV load growth on the grid system
• Deployments in over 30 countries
The EV fleet vehicle market is evolving
Fleets are going electric

Motivators/Goals:

• Mandates
• Operational efficiency

Challenges:

• Range
• ROI
• Infrastructure
• Charging:
  • Demand charges
  • Impacts to the grid
Best practices for every stage

1. Going Electric
2. Operating Electric/Smart-Charging

0% electric to 100% electric
1. Going Electric: EV Suitability Assessment

- **Benchmark**: Monitor existing fleet vehicle utilization and establish a benchmark
- **Analyze**: Run baseline data through software analytics and modeling tools
- **Create Adoption Plan**: Use these vehicle specific insights to a business case and roadmap to Electrification, and charging
Case Study: California Clean Fleet Project

Demonstrate the business case and operational suitability for electrifying 85 light-duty conventional vehicles across 8 public fleets in disadvantaged air quality communities across California.
Benchmark Recommendations:
- Roadmap to electrocution
- Type of charging infrastructure
Results

$615,650  
total cost of ownership savings

211,897  
gallons of gasoline

2,984  
tons of CO₂e GHG emissions
2. Operating Electric/Smart-Charging

Charge Management

- Managing both, the load and the charging in an optimal manner

Fleet/Depot

Workplace

Residential

Direct Load Control

Behavioral Load Management

Comparison of Throttled to Predicted Charging

Aggregated EV load shape without SmartCharge Rewards

Aggregated EV load shape with SmartCharge Rewards
Thank you for your time and attention today

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