

U.S. DEPARTMENT OF  
**ENERGY**

Office of  
ENERGY EFFICIENCY &  
RENEWABLE ENERGY

# Vehicle Technologies Office: Supporting Vehicle Electrification

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# Vehicle Technologies Office (VTO)

Batteries & Electrification



Materials Technology



Mobility Systems



Technology Integration and Deployment



ON-ROAD  
Light-, Medium-, Heavy  
Duty Vehicles



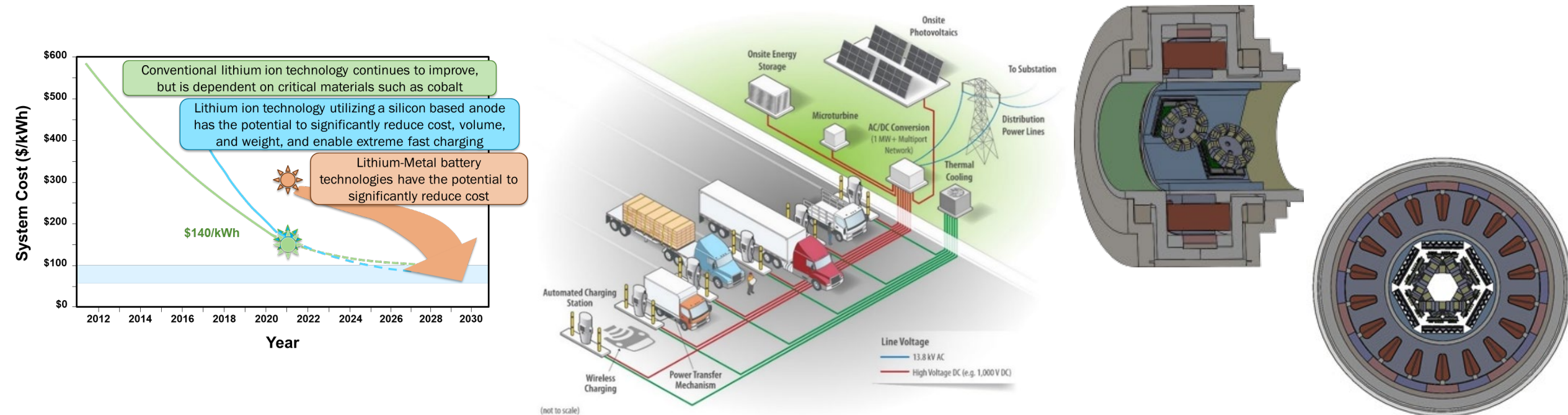
Off-Road, Air, Marine, Rail



# Batteries and Electrification Program

Enable a large market penetration of electric drive vehicles through innovative research and development:

- Reduce the cost of electric vehicle batteries to less than \$100/kWh and decrease charge time to 15 minutes or less, with the ultimate goal of \$75/kWh rated pack energy.
- Facilitate development and harmonization of a robust, interoperable, economically vibrant, resilient, cybersecure EV charging infrastructure that is integrated with a decarbonized modern grid
- A high power density 3L, 100 kW peak electric traction drive system at a cost of \$6/kW





# VTO Technology Integration Program

Provide objective data and real-world lessons learned that inform future research needs and support local decision-making to advance affordable, domestic transportation fuels and energy-saving technologies



**Clean Cities  
Coalitions**



**Information  
and Tools**



**Technical  
Assistance**



**Training,  
Outreach,  
Partnerships**



**Financial  
Assistance**



**Regulatory Activities /  
State and Alt Fuel  
Provider Fleets**



**Advanced Vehicle  
Technology  
Competitions**

# VTO Technology Integration Strategies

1. Work closely with the nationwide network of local Clean Cities coalitions to support local decision-making



2. Help stakeholders evaluate transportation needs and energy choices



3. Fund projects that:

- Shift to domestic transportation energy sources,
- Improve transportation fuel efficiency,
- Reduce harmful emissions, and
- Demonstrate new mobility choices.

# More than 75 Clean Cities coalitions with thousands of stakeholders, representing ~80% of U.S. population

## Clean Cities Coalitions



Map Date: 2/1/21

Coalition projects have helped to put nearly  
**1 million alternative fuel vehicles** on the road.<sup>2</sup>



**89 million gasoline gallon equivalents**

of energy were saved through fuel economy improvement projects like telematics, driver training, and outfitting fleets with idle reduction equipment.<sup>2</sup>



Full infographic: [cleancities.energy.gov/files/pdfs/28th\\_infographic.pdf](https://cleancities.energy.gov/files/pdfs/28th_infographic.pdf)

[cleancities.energy.gov](https://cleancities.energy.gov)

# Technical & Problem-Solving Assistance



## Technical Response Service

Seasoned experts who will help you find answers to technical questions about

- Alternative fuels,
- Fuel economy improvements,
- Idle-reduction measures,
- Advanced vehicles, and
- Clean Cites resources

**[TechnicalResponse@icf.com](mailto:TechnicalResponse@icf.com), 800-254-6735**





# THANK YOU

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[energy.gov/eere/vehicles/vehicle-technologies-office](https://energy.gov/eere/vehicles/vehicle-technologies-office)

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