DOE: Vehicle Technology Office (VTO) Upcoming Funding Opportunities

Timeline: January/February 2024

Likely Funding Amounts: >$1M; 2–3-year cooperative agreements

DE-FOA 0003248 (not yet posted) Areas of Interest:

1. **Next Gen Phosphate-Based Cathodes**
   Goal: to surpass state-of-the-art LiFePO₄ showing 1) an increase in **energy density**, 2) **scalability**, and 3) **cost**.²

2. **Na-ion Battery Seedling Projects for EV applications**
   Goal: to develop cathodes that **avoid critical materials** and address **slopping and step voltage-profile features**, 2) to understand of anode’s **sodiation mechanism**, and 3) to address poor solid **electrolyte interphase forming** capabilities.³

3. **Low-GHG Concepts for Off-Road Vehicles**
   Goal: to 1) reduce emissions by decreasing **carbon utilization** and maintain **durability** and 2) improvements in overall **efficiency** (e.g., reductions in fluid power systems throttling losses, vehicle automation.)⁴

4. **Saving Energy with Connectivity**
   Goal: to advance vehicle-to-everything (V2X) **high-speed, low latency communication** to improve the efficiency/convenience of the mobility-system (e.g., eco-driving along connected corridors, transit priority, intermodal optimization, or freight priority.)

5. **Domestically Produced E-Steels**
   Goal: to improve **ductility and magnetic properties** of **domestically produced** E-steels without affecting cost.

6. **Cybersecurity for Smart and Secure EV Charging**
   Goal: to develop **technologies, systems, and tools** necessary for cybersecure EVs.

DE-FOA 0003250 (not yet posted) Areas of Interest:

1. **Clean Cities Outreach, Engagement, and Technical Assistance**
   Goal: **outreach, engagement, and technical assistance** to 1) stakeholders in the medium- and heavy-duty vehicle fleet, 2) stakeholders in the off-road, rail, marine, aviation, and port

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¹ Links to NOIs here and here.
² Deliverable should be at least 2Ah cell with the proposed phosphate material and graphite anode exhibiting automotive performance requirements.
³ Deliverable of a 1 Ah Na-ion full cell providing ≥160 Wh/kg and 1,000 cycles with 80% capacity retention.
⁴ Deliverable will be total cost of ownership calculations and vehicle demonstration in representative drive cycles.
transportation sectors, 3) underserved communities, 4) Tribal communities; and 5) Electric utilities/utility regulators.5

2. Training on ZEVs for Critical Emergency Response Workers

Goal: to 1) develop training in areas where there are gaps in current training curricula, 2) provide in-person training workshops, and 3) build partnerships to incorporate existing online training materials into local first responder training.

3. Open Topic

Goal: to fund small-scale demonstration projects not otherwise addressed here.6

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5 Does not support pre-commercial technology demonstration.
6 Projects of interest include, but are not limited to, projects that focus on the advancement of zero-emissions medium-duty and heavy-duty vehicle technologies; projects that address the mobility needs of local underserved regions or populations; and projects that implement advanced technologies or alternative fuels in off-road, marine, rail, and other nonroad applications. Potential project team members may include, but are not limited to, the following: Clean Cities coalitions; local/regional/state governments; metropolitan planning organizations; community-based organizations that focus on the needs and perspectives of underserved communities; transit; transportation network providers; vehicle, fuel, energy, and infrastructure providers; utility companies; and fleets.