



GATEWAY CITIES  
COUNCIL OF GOVERNMENTS

# *Summary of ZE Truck and Vehicle Commercialization Study For Gateway Cities*



# Essential Findings

- » Commercial ZE Drayage trucks (and other ZE vehicles) are possible by 2025
- » A few specific technological approaches seem to have the most promise
- » Fuels and Fueling Infrastructure must be developed in parallel
- » It will not happen under business-as-usual
  - » Immediate and Coordinated action by multiple stakeholders is required for success

# Technology Solutions for ZE Drayage

- Several alternatives are viable:
  - 1) **Battery EV (BEV)** – the “Nissan Leaf” of trucks
  - 2) **Range Extended Electric Vehicle (REEV)** – the “Chevy Volt” of trucks
  - 3) **Fuel Cell Range Extended EV (FC-REEV)** – the “Honda Clarity” of trucks
- Not ruling out any technologies, but incorporating current knowledge of hurdles and industry direction
- Fuel/Power infrastructure needs to be developed simultaneously – including looking at catenary and H2 stations
- For Drayage operations, users were clear they wanted a truck that could “handle any job”
  - Near-Dock Drayage is a different case; for general drayage a limited truck would require major changes in business operations

# How Do We Get There? What Will It Take?

## Near Term Actions

- » Expand Technology
  - » ZET Demonstration Projects
  - » Other ZEV Demonstration Projects
  - » Supporting Technologies Demonstrations
  - » Advanced Infrastructure Demonstrations
  - » ZE Yard Hostler Demonstrations
- » Plan and Develop Infrastructure
  - » Fuel Infrastructure Availability & Impact Study
  - » Infrastructure Deployment Plan
  - » Prepare analysis for all communities in Gateway Cities

# How Do We Get There? What Will It Take?

## Near Term Actions

- » Business Case and Operational Model
  - » Analysis of ZET Operation and Maintenance Costs
  - » Assessment Report of Secondary Use Markets and Residual Value of ZET
  - » Refine Specific ZET Operational Cycle from Origin-Destination Data
  - » Detailed Business Case Development for ZET
  - » Assessment of Ownership Models Supporting ZET Use
  - » Organize and operate a Truck OEM Advisory Council
  - » Organize and Stage Regular Fleet Workshops on ZET Tech and Operations
  - » Prepare similar analysis for other ZEVs'

# How Do We Get There? What Will It Take?

## Near Term Actions

- » Build Supporting Markets
  - » Accelerate early deployment of existing ZE trucks and other ZE vehicles in Gateway Cities and Ports region
  - » Coordinate targeted incentive funding from regional, state and federal partners for early deployment
  - » Research, Determine and Evaluate Markets for Wider ZET and ZEV Use and Deployment
  - » Collaborate with regional and state regulators to guide and establish policy for use of ZET and ZEV

QUESTIONS?

# Conclusion

**Zero-Emission Trucks (ZET) and Zero Emission Vehicles (ZEV) can be deployed in the Gateway Cities and the I-710 region if both public and private stakeholders take action now to accelerate ZE technology commercialization**

