

# Transportation and Stationary Power Integration Workshop

## Session II: State and Industry Perspectives



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# Opportunities

- Potential multi-use options for CHP-hydrogen deployment
  - Forklifts in warehouses, replacing battery usage
  - Backup power applications
  - Bus routes, with fuel cell buses replacing conventional diesel transit buses
  - LDV Commercial Fleets
  - Airports: ground service vehicles
  - Military / Federal installations
  - Big box retailers
  - Grocery Stores
  - Car Dealerships
- One Megawatt of CHP Power capacity could support an output of ~450 kgs/day - enough for 27 transit buses.

**Potential Average Annual Emissions Reduction for One Megawatt of Conventional Fossil Fuel Generation Replaced with Capacity from a Fuel Cell<sup>1</sup> With Hydrogen Production Supplied to Fuel Cell Powered Transit Buses (Replacement of Diesel Transit Buses)**

	Stationary Applications	Transportation Applications
NO <sub>x</sub>	11,213 lbs	27,537 lbs
SO <sub>2</sub>	9,373 lbs	47.1 lbs
CO <sub>2</sub>	7,218,240 lbs	4,940,568 lbs

## A few questions...

- **What are the best ways for states, industry, and Feds to do TSPI type projects?**
- **What is the light duty vehicle OEM strategy?**
- **Are there viable renewable pathways?**
  - **biogas (WWTP)/ landfill gas ?**
  - **utility scale solar/wind power?**
- **Do we have the techno-economic analysis to develop a detailed strategy?**
- **What about the third party investment capital?**