



U.S. DEPARTMENT OF  
**ENERGY**

Energy Efficiency &  
Renewable Energy



# Alternative Fuels, Clean Cities projects and Disaster Planning

*NASEO State Energy Outlook Conference*

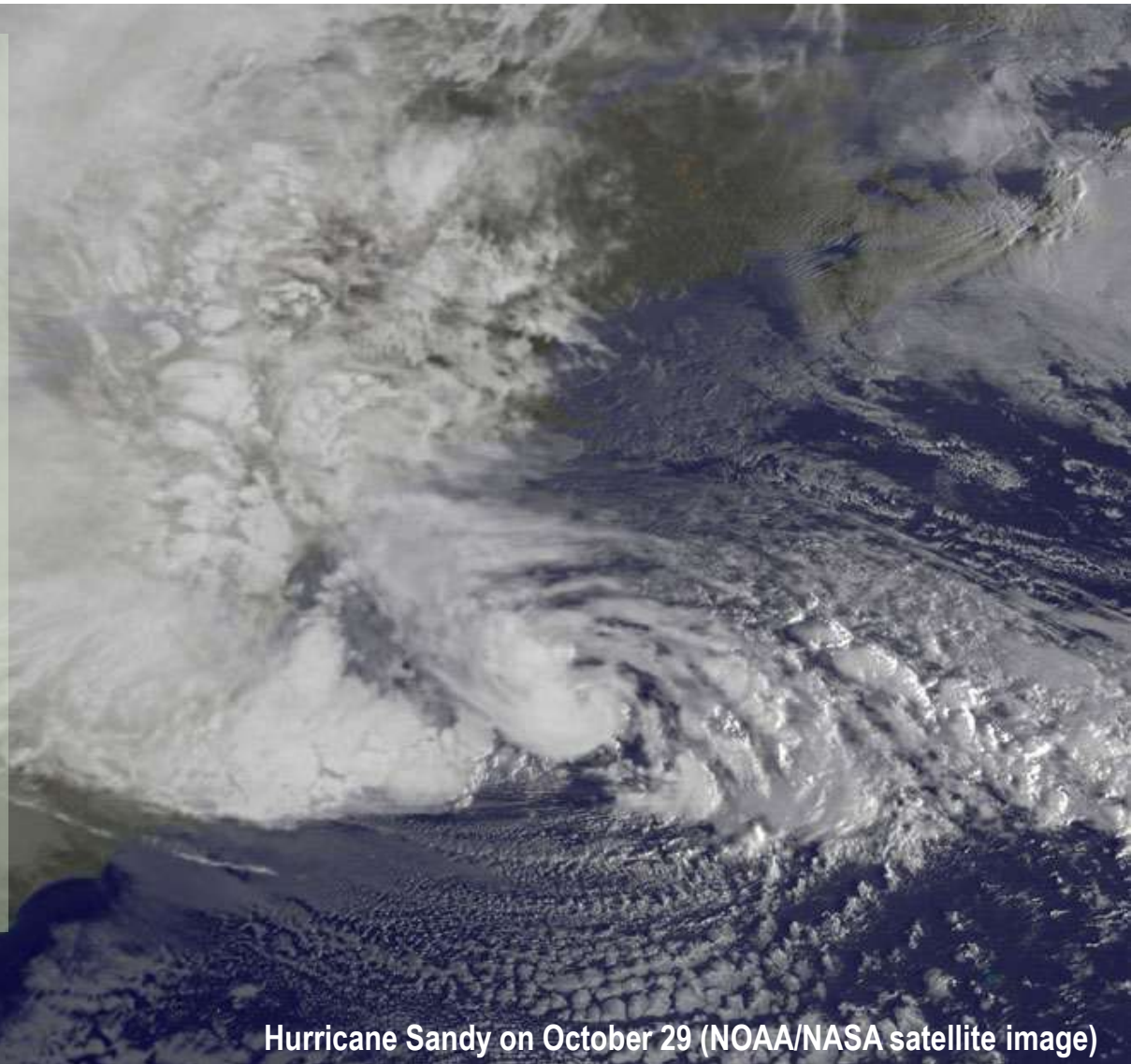
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**Linda Bluestein**

Clean Cities Co-Director

# Hurricane Sandy Strikes the Northeast

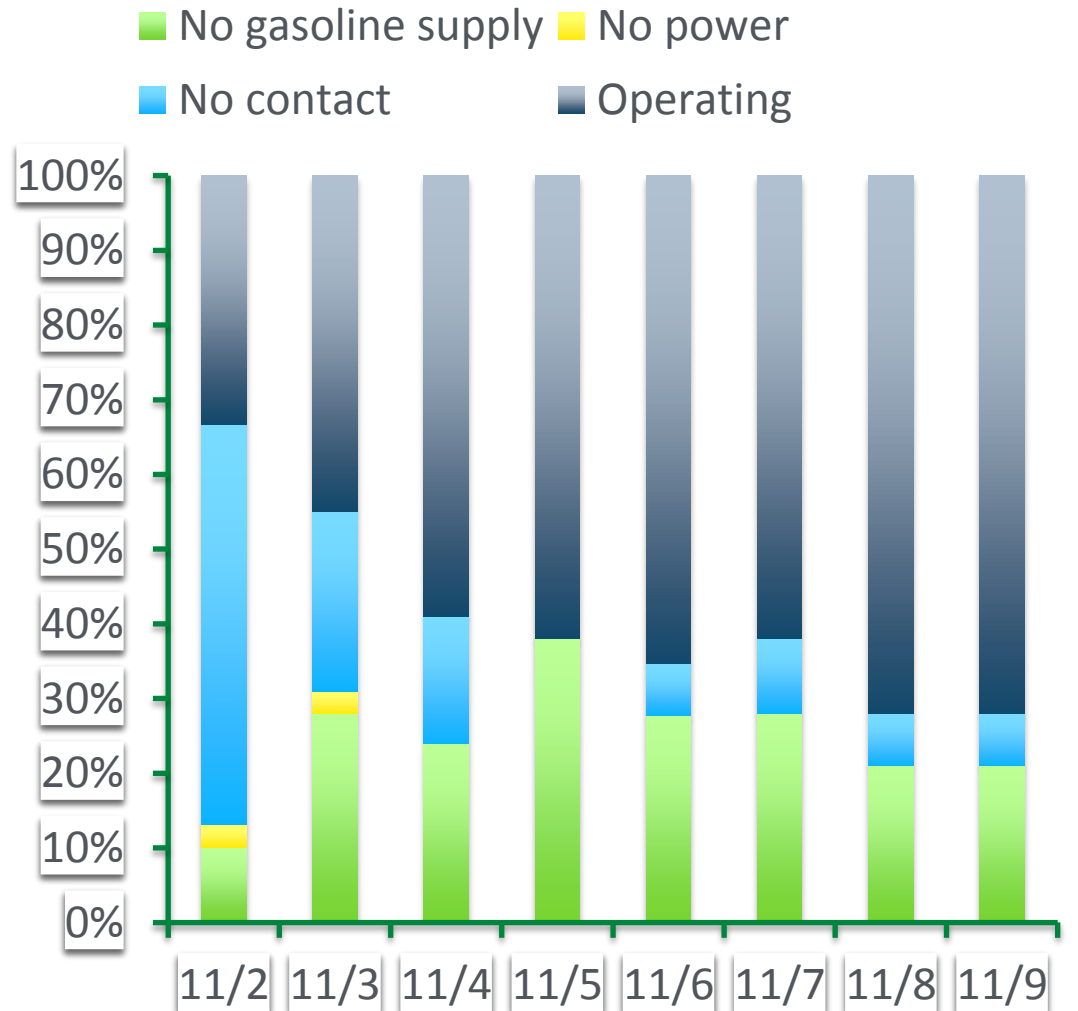
- October 2012 – Category 2 hurricane
- Made U.S. landfall near Atlantic City, NJ
- Storm surge floods portions of New York City
- Widespread power outages
- Petroleum refinery closures



Hurricane Sandy on October 29 (NOAA/NASA satellite image)

# Post-Sandy, Transportation Fuels in Short Supply

- Gasoline and diesel supplies limited after Sandy (especially in New York/New Jersey)
  - Some reported no power to run station
  - Some had no fuel to sell
- Some areas instituted gasoline rationing
- 21% of stations still had no fuel 11 days after hurricane



Data from DOE Energy Information Administration

# Alternative fuel vehicles keep rolling...

- Alternative fuel vehicles able to assist with preparation and recovery efforts
  - Not dependent on limited petroleum supplies
- Three examples
  - Atlantic City
  - Long Island
  - Connecticut





# Atlantic City CNG Jitney Bus



**Evacuated elderly and disabled residents from  
vulnerable areas ahead of the hurricane**

# Compressed Natural Gas Station in Connecticut

Backup generators at West Haven station enabled operation during power outages



# Cleanup Efforts (Long Island, New York)





# Importance of alternative fuel vehicles

- Hurricane Sandy recovery efforts showed value of alternative fuel vehicles/advanced technology vehicles
  - Able to provide critical services when conventional fuel supplies are interrupted
  - Alternative fuel supplies often remained available post-storm
- Important to include these vehicles in planning efforts
- Clean Cities Coalitions and Coordinators are a great resource
  - Informed about local alternative fuel landscape
  - Connected to key stakeholders



~100 coalitions Serving 78% of the US population

## Clean Cities Coalitions



Thousands of stakeholders from businesses, city/state governments, transportation industry, community based organizations, utilities and fuel providers

# Western Washington Clean Cities

**Population:** 3,783,366

**Area:** 6,599 sq. mi.

**Boundaries:** Counties: Clallam, Grays Harbor, Jefferson, King, Kitsap, Lewis, Mason, Pacific, Pierce, San Juan Island, Skagit, Snohomish, Thurston, Whatcom

**Designated:** August 13, 1998

**Alternative Fueling Stations:**

Biodiesel (B20 and above): 23

Natural Gas: 11

Ethanol (E85): 7

Electric: 67

Propane: 23

**Annual Greenhouse Gas Emissions**

**Avoided:**\* 26,334 lb of CO<sub>2</sub>

**Annual Petroleum Savings:**\*

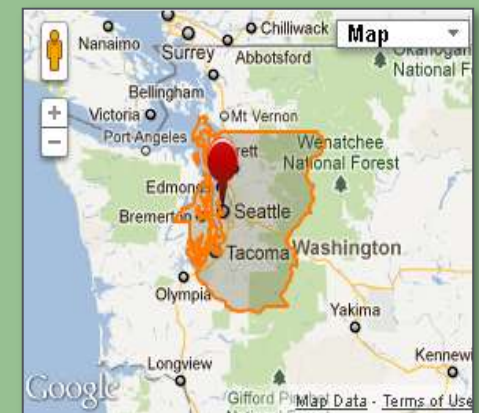
6,945,454 gasoline gallon equivalents



Alternative Fuel Vehicles (78%)  
Fuel Economy Improvements (12%)  
Fuel Blends (10%)



*Stephanie Meyn*  
Coordinator



# For More Information

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Clean Cities Website: [www.cleancities.energy.gov](http://www.cleancities.energy.gov)

Alternative Fuels and Advanced Vehicles Data Center: [www.afdc.energy.gov](http://www.afdc.energy.gov)

Fuel Economy: [www.fueleconomy.gov](http://www.fueleconomy.gov)



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