

MARCH 17, 2022



FUNDING OPPORTUNITIES FOR CLEAN CRITICAL INFRASTRUCTURE

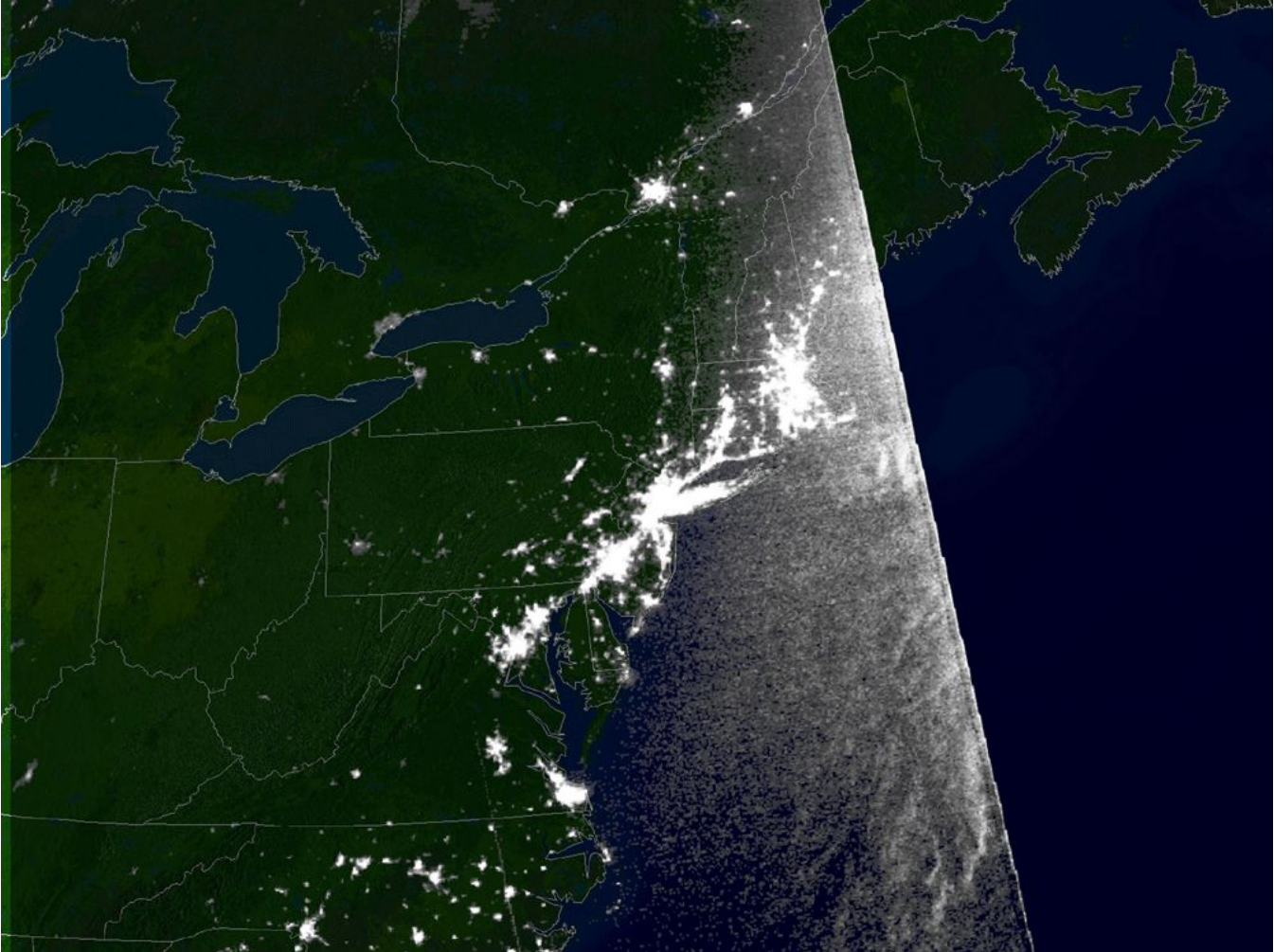
DR. MARK PETRI

Electric Power Grid Program Director

Advanced Energy Group

Chicago 22Q1 Stakeholder Dinner

August 14, 2003



Argonne National Laboratory is a
U.S. Department of Energy laboratory
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Funding Opportunities for Clean Critical Infrastructure

Dr. Mark C. Petri

2



National Oceanic and Atmospheric Administration,
https://commons.wikimedia.org/wiki/File:Northeast_blackout_2003.gif



NATURAL AND MANMADE THREATS

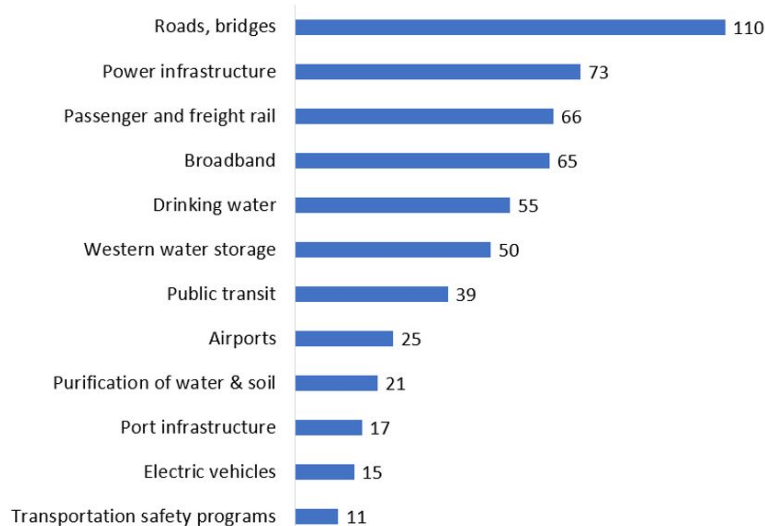


INFRASTRUCTURE INVESTMENT AND JOBS ACT

INFRASTRUCTURE INVESTMENT AND JOBS ACT

- Enacted November 15, 2021.
- \$1.2 trillion over 5 years:
 - \$650B for pre-existing transportation programs.
 - **\$550B for new programs.**

Infrastructure Investment and Jobs Act (\$ Billion)



BUILDING EFFICIENCY INITIATIVES

- Energy Efficiency and Conservation **Block Grants**
 - Energy efficiency
 - Renewable energy
 - Zero-emission transportation
- Energy Efficiency **Revolving Loan** Fund
 - For example:
 - Commercial and residential energy upgrades
- **Deployment of Technologies** to Enhance Grid Flexibility
 - Data analytics
 - Building demand management technologies
 - Advanced transmission technologies
 - Mitigation measures
 - Aggregation of distributed energy resources
 - Energy storage for grid services
 - Integration of renewable resources, electric vehicle charging infrastructure, and vehicle-to-grid technologies
 - Measures to increase demand from electrification

SMART MOBILITY INITIATIVES

- Strengthening Mobility and Revolutionizing Transportation **Grants**
 - Demonstration projects for smart city/community technologies to improve transportation efficiency and safety
 - Feasibility analyses, system development, land/equipment purchases, construction, etc.

POWER GRID INITIATIVES

- Preventing Outages and Enhancing the Resilience of the Electric Grid **(Grants)**
 - Measures to reduce the likelihood and consequences of disruptive events, such as:
 - Weatherization
 - Fire protection
 - Monitoring and control
 - Undergrounding of electrical equipment
 - Utility pole management
 - Vegetation management
 - Microgrids and battery storage
 - Advanced modeling
 - System hardening
- Electric Grid Reliability and Resilience Research, Development, and Demonstration
 - Transmission, distribution, and storage technologies

POWER GRID INITIATIVES (CONTINUED)

- Transmission Facilitation Program
 - New or replacement transmission lines
 - Capacity expansion measures
- Demonstration of Electric Vehicle Battery Second-Life Applications for Grid Services
- Enhancing Grid Security Through Public-Private Partnerships
 - Includes technical assistance to utilities and cybersecurity training
 - Sharing best practices
 - Risk assessments
- Enhanced Grid Security
 - Identifying and mitigating vulnerabilities
 - Assessing security of field devices and control systems

PUERTO RICO RESTORATION



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