U.S. DEPARTMENT OF
ENERGY

4Th Forum on the Climate-Energy Security Nexus: Energy &Water

International Energy Agency & World Business Council for Sustainable Development

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What policy responses are needed?

- An improved framework of enabling policies would further accelerate deployment of the technologies and approaches needed to build a climate-resilient energy sector in a timely manner -- U.S. Department of Energy Report on *"U.S. Energy Sector Vulnerabilities to Climate Change and Extreme Weather"*

- Existing policies should be examined in terms of how they increase or decrease climate resilience

- Novel policies may be needed to enhance technological innovation and help to bring new technologies to market, including demonstration, as well as removing inappropriate barriers to the deployment of existing commercial technologies

- Policies are needed to exploit productive synergies among water and energy systems

Who pays/benefits from investments in resilience

The cost of a water-vulnerable energy system is significant and growing

-- U.S. Department of Energy Report on *"The Water-Energy Nexus: Challenges and Opportunities"*

- Water scarcity, variability, and uncertainty are becoming more prominent and expected to grow with increased demand for energy, population growth, and climate change, leading to increased vulnerability to energy systems.

- The cost (lost output and wages, health, spoiled inventory, damaged infrastructure, replacement power, restarting industrial operations, etc) is borne by many:
  - Electric and Water/Waste Water Utilities
  - Customers
  - Ecosystems
  - Society

- Need for greater engagement of the investment, financial, and insurance communities in risk reduction through the use of financial instruments

What institutional links and coordination is needed?

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- Transition to climate resilience will require an improved understanding of the vulnerabilities, risks, and opportunities based on regular dialogue and exchange between industry, governments, technical institutions, and non-governmental organizations that are active in basic and applied research, water and energy system planning, siting, and adaptation.

- Enhanced outreach should build on existing mechanisms
  - IEA (e.g., Forum on the Climate-Energy Security Nexus, Various Working Groups, etc)
  - Clean Energy Ministerial
  - Other multilateral mechanisms

- Collaboration between electric and water utilities would accelerate the cost-effective implementation of energy and water conservation, integrated resource planning, and other adaptation strategies

- Establishment of new Public-Private Partnerships
  - Example: U.S. Department of Energy Voluntary Partnership for Energy Sector Climate Resilience (planned for 2014)

For Additional Information

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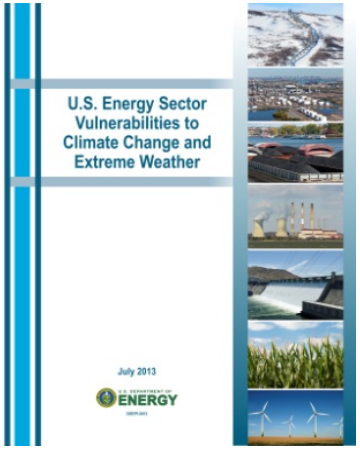
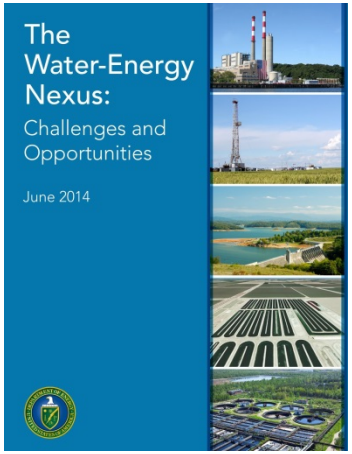


- U.S. Department of Energy Report on *"U.S. Energy Sector Vulnerabilities to Climate Change and Extreme Weather"* available at :

  http://energy.gov/downloads/us-energy-sector-vulnerabilities-climate-change-and-extreme-weather



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