



# ***Energy Assurance Guidelines for States***

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# What is Energy Assurance?

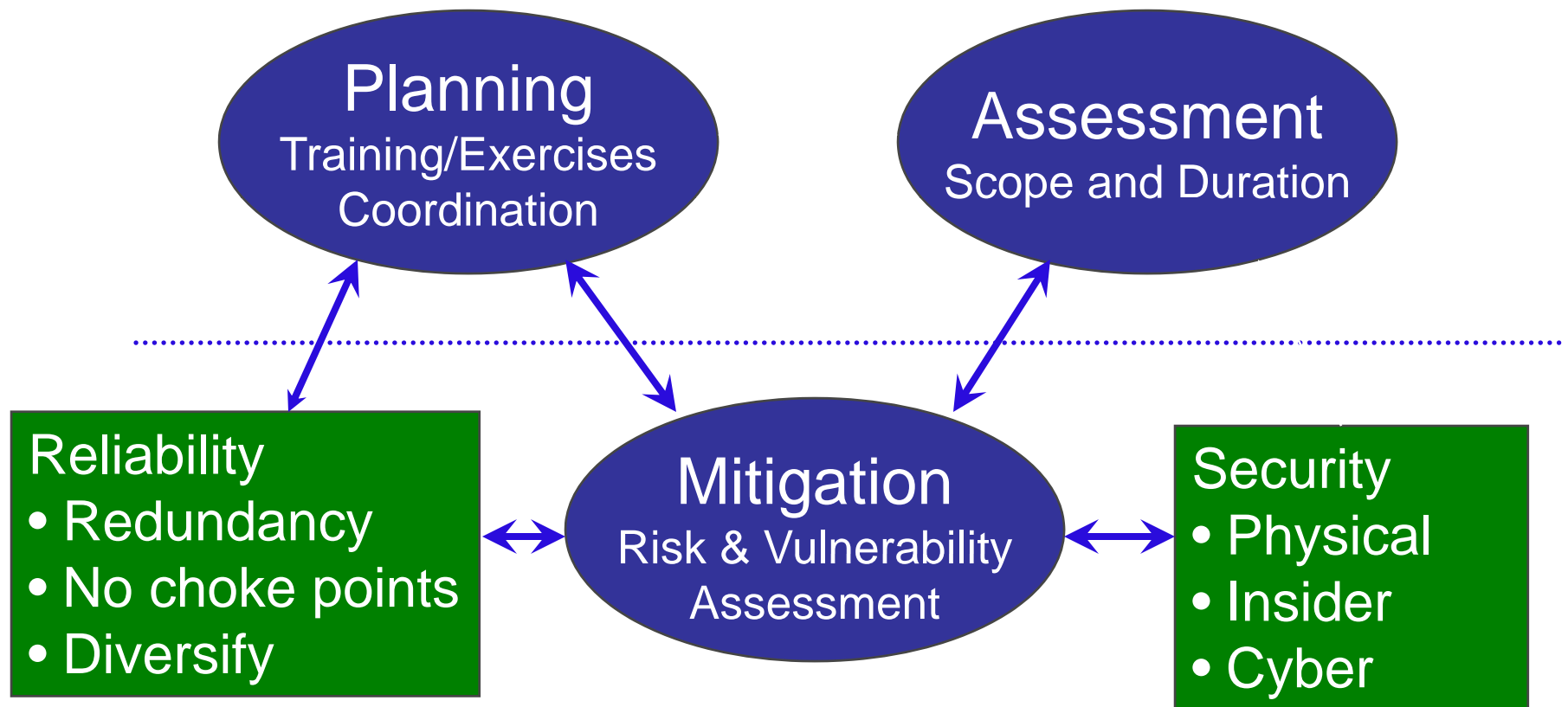
## All Hazards Approach

- Sabotage/Terrorism
- Civil Disturbance
- Hurricanes
- Natural Disasters
- Infrastructure Failures
- Public Health Emergencies



# Preparedness – Protect and Respond

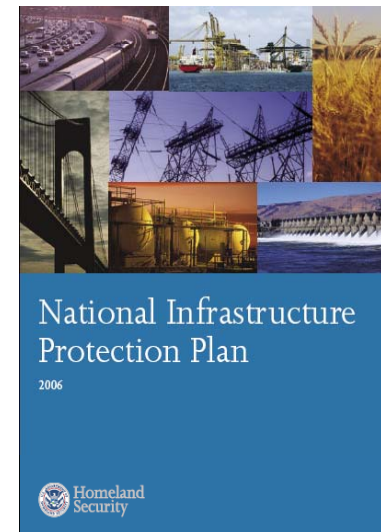
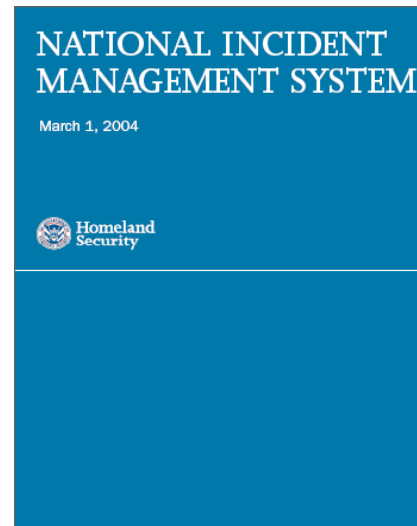
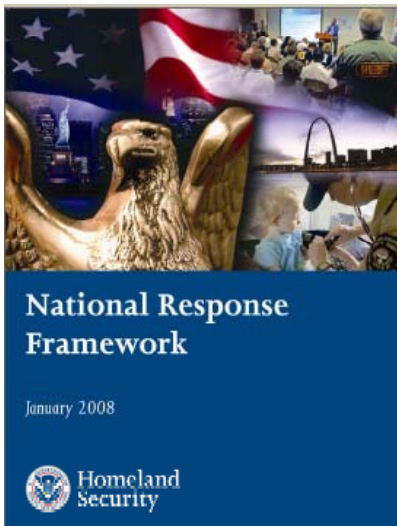
## Emergency Preparedness and Response



## Protecting Critical Infrastructure and Enhancing Resiliency

# Overarching National Strategies

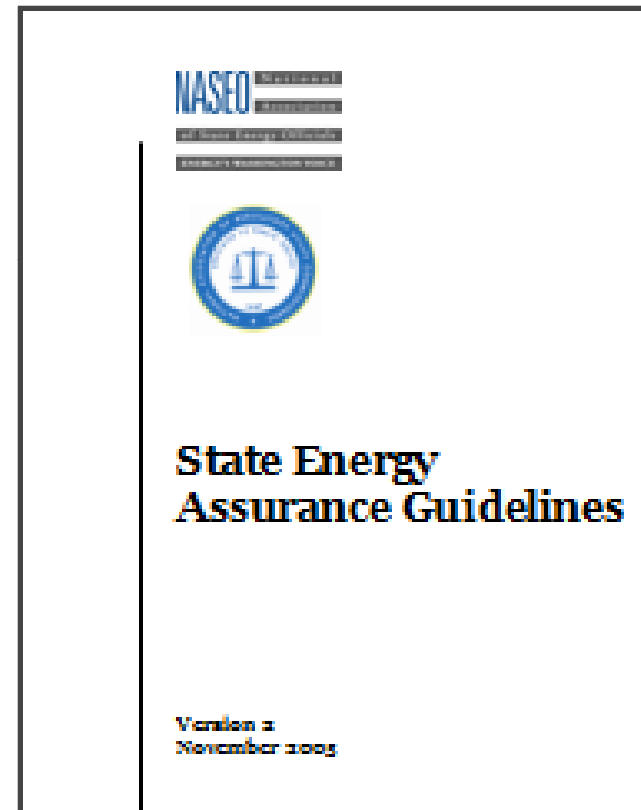
- **National Response Framework (NRF)**
  - <http://www.fema.gov/emergency/nrf/>
- **National Incident Management System (NIMS)**
  - <http://www.fema.gov/emergency/nims/>
- **National Infrastructure Protection Plan (NIPP)**
  - <http://www.dhs.gov/nipp>



# Energy Assurance Guidelines

Provide state energy and emergency officials with tools for understanding and reviewing how their jurisdictions respond to energy disruptions and how to improve the energy emergency plans that guide this response.

The Guidelines are a compilation of information from many state energy and emergency officials who have experienced and responded to energy emergencies.



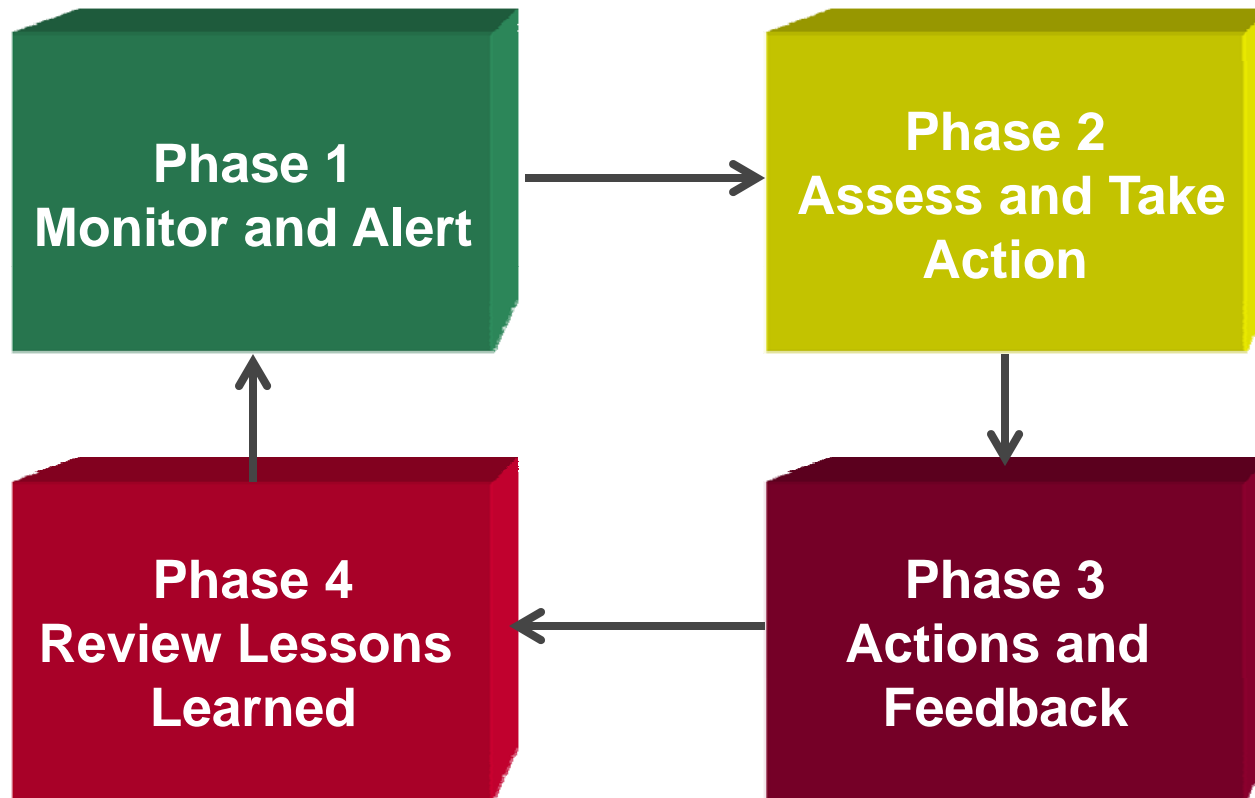
[http://www.naseo.org/committees/energysecurity/documents/energy\\_assurance\\_guidelines\\_v2.pdf](http://www.naseo.org/committees/energysecurity/documents/energy_assurance_guidelines_v2.pdf)

## **Emergency Response -- Because we will never be invulnerable, we must be prepared to respond**

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1. Make sure you and your staff are prepared and trained to meet the needs of policy makers.
2. Make sure communication channels are open and clear.
3. Know your state's energy profile and interdependencies.
4. Know the geography and demography of your energy infrastructure.
5. Know your key government and industry contacts.
6. Maintain a good working relationship with the private and public sector contacts.
7. Be prepared to work with the media.
8. Know the legal authorities which support your response.
9. Understand how you can effectively respond (increasing supply, reducing demand and other actions).
10. Maintain an alternative budget for emergencies.
11. Keep your energy assurance plan up-to-date.

# The Four Phases of an Emergency



# Gathering Data and Information – Consequence Assessment

- Understanding the state energy profile
  - ❖ Capacities & Utilization
  - ❖ Energy flows, consumption & prices
- Identify who in the state is responsible for tracking trends, statistics
- Know what data is collected and how to get it and what it means
- Vulnerability Assessment



# Energy Emergency Assurance Coordinators (EEAC)

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- Points of contact for States, DOE and industry in event of and energy emergency.
- Provide assessment, notification, news and updates on actions taken.
- Primary and secondary contact for each sector (petroleum, electricity, natural gas) from each state



## Media & Public Information

- Be prepared and know who will talk to the Press. If a Joint Public Information Center is established, work through this center.
- The message should be clear and consistent.
- Only tell them what you know as fact, do not speculate.
- Provide authoritative, accurate and timely information.
- Provide background information that helps them understand the nature of the problem.



# Recommended Actions -- Voluntary

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- **Monitor Supply (no shortage)**
  - Attention to rumors, reports, national and regional events
  - Monitor, alert, coordinate
  - Issue public advisories as needed
- **Moderate shortage**
  - Seek input from stakeholders regarding potential mandatory actions
  - Give special attention to supporting private sector recovery efforts
  - Coordinate with advisory committees, other stakeholders
  - Conduct risk analysis, notify Governor of impending energy emergency

# Recommended Actions - Mandatory

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## Severe Shortages

- Recommend mandatory actions
- State of Disaster
  - Responsibility usually falls to state &
  - local emergency management agency (EMA), sometimes PUC
- Declaration of Energy Emergency
  - SEO and/or PUC should coordinate with State EMA and federal agencies as appropriate:
    - DOE, FEMA, DOT
    - (e.g., pipelines and driver hour waivers)

# Protecting Critical Energy Infrastructure and Enhancing Long-Term Resiliency

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- Defining critical energy infrastructure and key assets
- Assessing risk, vulnerabilities, criticality and consequences
- Developing investments that build resiliency
  - Diversification of energy sources
  - Build redundant systems to enhance reliability
  - Increased efficiency
  - Quick response and recovery
- Build partnerships Public/Private Sectors, Federal, state, local and tribal governments.

# A Framework for Defining Resilience

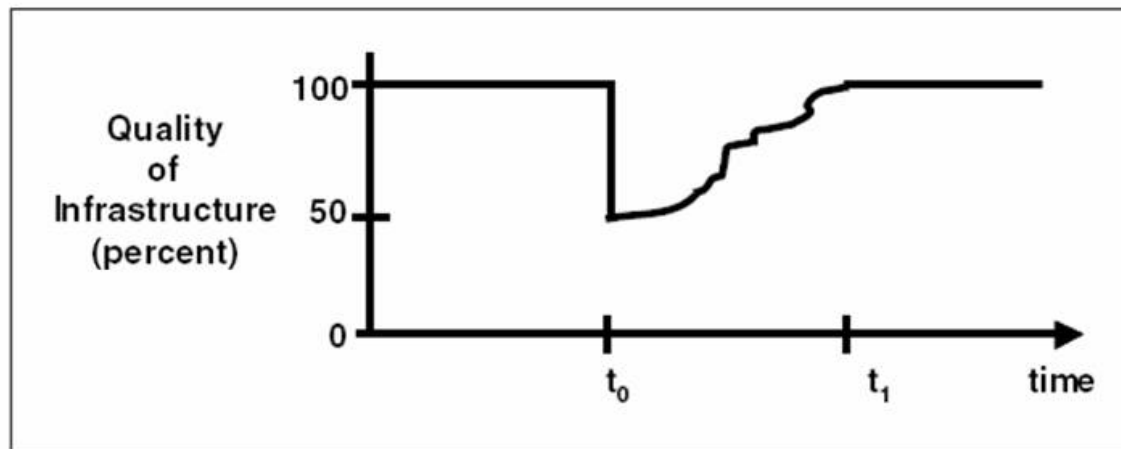


FIGURE 3 Measure of seismic resilience—conceptual definition. Source: Bruneau et al., 2003.

For a community, loss of resilience,  $R$ , can be measured as the expected loss in quality (probability of failure) over the time to recovery,  $t_1 - t_0$ . Thus, mathematically,  $R$  is defined as:

$$R = \int_{t_0}^{t_1} [100 - Q(t)] dt$$

Source: Multidisciplinary Center for Earthquake Engineering Research framework for defining resilience (Bruneau and Reinhorn, 2007; Bruneau et al., 2003)

# Resilience results from a sustained commitment to four factors

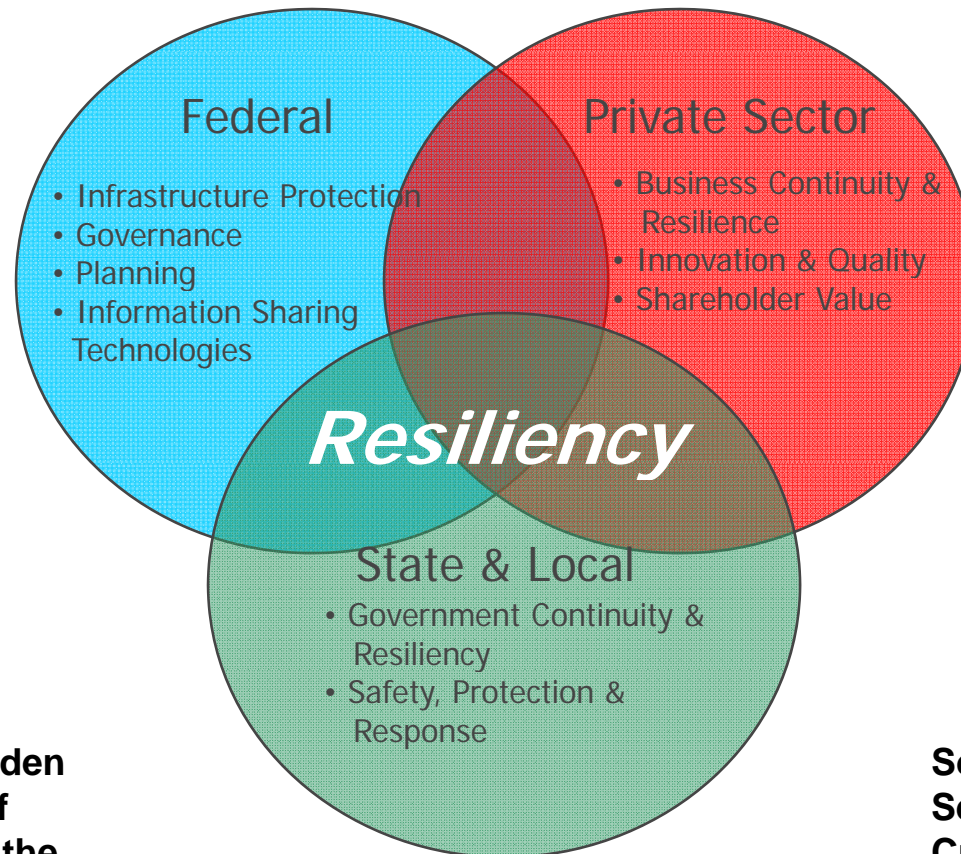
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- Robustness
  - The ability to operate or stay standing in the face of disaster
- Resourcefulness
  - skillfully managing a disaster once it unfolds
- Rapid Recovery
  - The capacity to get things back to normal as quickly as possible after a disaster
- Learning lessons
  - Having the means to absorb the new lessons that can be drawn from a catastrophe

Flynn, S. (2008) America the Resilient: Defying Terrorism and Mitigating Natural Disasters. *Foreign Affairs*, 87 (2), 2-8.

# Intersecting Stakeholder Interest

## Public/Private Sector Partnerships



In 2004 Osama bin Laden enunciated a policy of “bleeding America to the point of bankruptcy.”

Source: Homeland Security Advisory Council, Critical Infrastructure Task Force Report, January 2006



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