

# National Infrastructure Advisory Council (NIAC)

## The Critical Infrastructure Resilience Study Working Group

September 8, 2009

Wes Bush  
President and COO  
Northrop Grumman

Margaret Grayson  
Principal  
Essential2Management

1

## Overview

---

- Objective
- Scope
- Study Approach
- A Definition for Resilience
- Major Findings
- Recommendations
- Questions

2

## Objective

---

- ▣ Examine opportunities to integrate and encourage resilient practices and strategies within critical infrastructures. In particular, NIAC will examine:
  - How resilience is defined and practiced within the various critical infrastructure sectors
  - The role of government in developing policies and programs to promote/encourage resilience
  - Options for improving current infrastructure resilience to achieve national homeland security policy goals

3

## Scope

---

- ▣ Examine *critical infrastructure* resilience, as opposed to community resilience
- ▣ Examine current government *policies and programs* affecting the 18 critical infrastructures and key resources (CIKR) sectors
- ▣ Emphasize the resilience of *national* infrastructures and *cross-sector* issues rather than the resilience of individual enterprises.
- ▣ Examine both *near-term and long-term* resilience opportunities

4

## Key Information Sources

---

- Survey of Government Policies and Programs and Resilience Studies and Literature
- Panel Discussions with CIKR Sectors
  - Banking and Finance
  - Communications
  - Energy – Oil and Natural Gas
  - Transportation
  - Chemical
- Executive Interviews
  - Banking and Finance
  - Chemical
  - Defense Industrial Base
  - Healthcare
  - Nuclear
  - Postal and Shipping
  - Transportation - Rail
  - Water
- Other Interviews
  - ASIS International
  - ASME International
  - Conference Board of Canada
  - Council on Competitiveness
  - FEMA PS Prep
  - DHS Partnerships and Outreach Division (POD)
  - UK Government Authorities and CIKR Operators
  - Various Study Authors

5

## Working Group Definition of Resilience

---

- **Infrastructure resilience** is the ability to reduce the magnitude and/or duration of disruptive events. It is the ability to *anticipate, absorb, adapt to, and/or rapidly recover* from a potentially disruptive event. It has three key features:
  - **Robustness:** the ability to maintain critical operations and functions in the face of crisis
  - **Resourcefulness:** the ability to prepare for, respond to, and manage a crisis or disruption as it unfolds
  - **Rapid recovery:** the ability to return to and/or reconstitute normal operations as quickly and efficiently as possible after a disruption
- **Protection and resilience** represent complementary elements of a comprehensive risk management strategy

6

## Major Findings

---

- ❑ A common definition will help guide policy development.
- ❑ The current policy framework for infrastructure security is fundamentally sound but could be improved to better reflect principles of resilience.
- ❑ The Public-Private Sector Partnership Framework provides an excellent collaborative mechanism for improving infrastructure resilience.
- ❑ The business case for infrastructure resilience is well suited for a federal government role as an enabler and facilitator for owners and operators.
- ❑ Current market mechanisms may be inadequate to achieve the level of resilience needed to ensure public health, safety, and security.

7

## Two Recommendation Areas

---

Policy Framework and Governance

Mechanisms to Achieve CIKR Resilience

8

## Fortify Government Policy Framework to Strengthen Critical Infrastructure Resilience

---

- ❑ Adopt the NIAC definition for resilience
- ❑ Develop resilience goals through collaborative dialog with CIKR sectors
- ❑ White House leadership is vital to development of national resilience policy
- ❑ Issue HSPD-level authority to develop national policy on resilience
- ❑ Expand resource allocation criteria to include resilience-focused risk management

## Improve Government Coordination to Enhance Critical Infrastructure Resilience

---

- ❑ White House leadership is critical to coordinate and adjudicate conflict among regulatory agencies

## Clarify Roles and Responsibilities of Critical Infrastructure Partners

---

- ❑ Review incident management documents
- ❑ Establish a common understanding on resilience goals
- ❑ State and local governments should develop regional goals
- ❑ DHS to monitor and report sector resilience
- ❑ Address role of repair and maintenance on CIKR resilience

11

## Strengthen and Leverage Public-Private Partnership

---

- ❑ Collaborate with CIKR owners and operators throughout resilience policy development process
- ❑ Use the Sector Partnership Model to develop resilience policy
- ❑ Foster government facilitator role to enable companies to share information
- ❑ Implement the NIAC's recommendations from the recent *Frameworks Report*
- ❑ Build institutional and personal relationships with CIKR executives
- ❑ Apply better understanding on the role of design and construction in infrastructure resilience

12

## Encourage Resilience Using Appropriate Market Forces

---

- ▣ Leverage sector understanding of market forces, incentives, and disincentives to apply appropriate action to strengthen infrastructure resilience

13

## Implement Government Enabling Activities & Programs in Concert with CIKR Owners & Operators

---

- ▣ Use cross-sector exercises to identify interdependencies, improve preparedness, and establish relationships

14



---

Questions?