

# **National Infrastructure Advisory Council (NIAC)**

July 13, 2010  
National Press Club  
Washington, DC

# Roll Call of Members

**Nancy Wong**

Designated Federal Official, NIAC

# Roll Call – NIAC Meeting Attendance

<u>NIAC Member</u>	<u>Present</u>	<u>Telecon</u>	<u>POC Attendance</u>
<u>Erle A. Nye</u>		<u>Telecon</u>	<u>Present</u>
<u>Alfred R. Berkeley III</u>	<u>Present</u>		<u>Present</u>
<u>Edmund G. Archuleta</u>			<u>Present</u>
<u>David J. Bronczek</u>			<u>Telecon</u>
<u>Wesley Bush</u>			<u>Present</u>
<u>Albert J. Edmonds</u>	<u>Present</u>		
<u>Gilbert G. Gallegos</u>			
<u>Margaret E. Grayson</u>	<u>Present</u>		
<u>Phillip G. Heasley</u>			
<u>Raymond W. Kelly</u>			
<u>David E. Kepler</u>			<u>Telecon</u>
<u>Martha H. Marsh</u>			
<u>James B. Nicholson</u>			
<u>Thomas E. Noonan</u>		<u>Telecon</u>	
<u>Timothy Pawlenty</u>		<u>Telecon</u>	
<u>Gregory A. Peters</u>			
<u>James A. Reid</u>		<u>Telecon</u>	
<u>Bruce Rohde</u>			
<u>Linwood Rose</u>			
<u>Matthew K. Rose</u>			
<u>Michael Wallace</u>	<u>Present</u>		
<u>Greg Wells</u>			
<u>Martha Wyrsh</u>	<u>Telecon</u>		

# Opening of Meeting

**Nancy Wong**

Designated Federal Official

NIAC

# Opening Remarks and Introductions

**NIAC Chairman Erle A. Nye**

Chairman Emeritus

TXU Corporation

# Opening Remarks and Introductions

**Sue Armstrong**

Acting Deputy Assistant Secretary

Infrastructure Protection

Department of Homeland Security

Approval of April 2010 Minutes

**Chairman Nye**

**Vice Chairman Berkeley**

# Working Group Status Updates

**Chairman Nye**

**Vice Chairman Berkeley**

# National Infrastructure Advisory Council (NIAC)

## **A Framework for Establishing Critical Infrastructure Resilience Goals Working Group**

July 13, 2010

Al Berkeley  
Chairman

Pipeline Trading Systems

Mike Wallace  
Vice Chairman

Constellation Energy  
Chairman, UniStar Nuclear Energy

# Overview

- Objectives
- Study Approach
- NIAC and Study Group Members
- Progress
- Resilience in the Electric Sector
- Results of the Stress Test Exercise
- Issues Affecting Electric Sector Resilience
- Next Steps

# Objectives

- Assess how CIKR sectors currently use resilience practices and strategies to mitigate operational risk
- Develop a process to assist sectors in discerning resilience goals
- Recommend policies and practices that will enhance resilience in CIKR sectors

# Study Approach

- Three sequential case studies:
  - Nuclear and Electricity
  - Oil and Natural Gas
  - Transportation
- Each case study will:
  1. Assess current resilience practices and strategies
  2. Assess sector resilience in “stressed” state
  3. Develop a process for developing sector goals
  4. Identify policies and practices to enhance sector resilience
- The results of each case study will inform and refine subsequent case studies

# NIAC Member Participation

- Mr. Berkeley: Overall Study Chair
- Mr. Wallace: Lead—Electric/Nuclear Case Study
- Ms. Wyrsh: Lead—Oil and Natural Gas Case Study
- Mr. Wells: Lead—Transportation Case Study

# Study Group Members

- **Mike Wallace**, Vice Chairman, Constellation Energy, **Study Group Chair, NIAC Member**
- **Al Berkeley**, Chairman, Pipeline Trading Systems, **Study Group Chair, NIAC Member**
- **Michael Assante**, former Vice President and Chief Security Officer, North American Electric Reliability Corporation (NERC)
- **William Ball**, Executive Vice President and Chief Transmission Officer, Southern Company
- **Terry Boston**, President and CEO, PJM Interconnection
- **A. Christopher Burton**, Senior Vice President, Baltimore Gas and Electric Company
- **Gerry Cauley**, President and CEO, North American Electric Reliability Corporation (NERC)
- **Jeff Dagle**, Chief Electrical Engineer, Pacific Northwest National Laboratory
- **Ken Daly**, President and CEO, National Association of Corporate Directors
- **Kenneth DeFontes**, President and CEO, Baltimore Gas and Electric Company
- **Jose Delgado**, President and CEO, American Transmission Company
- **Mark Engels**, IT Risk Management, Dominion Resource Services
- **Ed Goetz**, Executive Director, Corporate and Information Security, Constellation Energy
- **Scot Hathaway**, Vice President, Transmission, Dominion Virginia Power
- **Paul Koonce**, CEO, Dominion Virginia Power
- **Ron Luman**, National Security Analysis Department Head, Johns Hopkins University/Applied Physics Laboratory
- **Robin Manning**, Executive Vice President, Power System Operations, Tennessee Valley Authority (TVA)
- **Dan Sadler**, Program Manager - Business Continuity, Constellation Energy
- **Debra van Opstal**, Senior Fellow, Resilience Policy, Center for National Policy

# Progress

- **Accomplishments**

- 16 interviews of CEOs, executives, and policy leaders completed
- >50 studies and documents reviewed
- 11 Study Group discussions conducted
- All-day Stress Test Exercise at BGE conducted

- **Planned**

- CEO Roundtable planned for July 14
- 1-3 additional interviews
- 6-8 Study Group discussions

# Results of Stress Test Exercise

- **Disaster Scenario:** Coordinated attack results in simultaneous loss of two key substations and 500kV transmission lines
- **Impact:** At least 6 months of daily power outages, some customers out for extended periods; outages affect essential services such as water supply and fuel, huge local economic impact; consumer and political pressure, possible social chaos
- **Gaps and Seams:** Vulnerability of substations, availability and design specifications of high voltage transformers, lack of experience in managing unusual disaster scenarios, access to facilities if a crime scene, time for approvals to rebuild facilities
- **Long-Term Issues:** Cost recovery to address high-impact, low frequency events; coordination of government agencies; ROW issues for system resilience; supply chain for EHV transformers; public & private roles in securing the grid for national security needs

# Issues Affecting Electric Sector Resilience

- **Infrastructure Design and Assets**
  - Large investment in long-lived capital assets
  - Securing rights-of-way for interconnection and expansion
  - Increased use of digital controls; Smart Grid technologies
- **Supply Chain**
  - Long lead time, customized designs for EHV transformers
  - Reliance on foreign vendors
- **Sector Interdependencies**
  - Oil & Natural Gas, Telecom, Transportation
  - Co-location of utilities in rights-of-way
- **Workforce**
  - Aging workforce with technical operating experience

# Issues Affecting Electric Sector Resilience

- **Changing Risk Landscape**
  - Coordinated physical & cyber attack, electromagnetic pulse/ geomagnetic storm, pandemic, catastrophic weather events
- **Markets and Regulatory Structure**
  - Highly regulated sector; cost recovery through FERC and PUCs
  - Business case for increased investments in resilience
- **Public/Private Roles and Responsibilities**
  - Sharing risks for high-impact, low-frequency risk
  - Responsibilities & expectations of government and public in disasters
  - Coordination of governments and sector during a crisis
- **Standards**
  - Opportunity for improvement but also unintended consequences
- **Information Sharing**
  - Ability to share classified threat information

# Next Steps

- July 14 CEO Roundtable will help clarify public and private sector roles and actions to address gaps in resilience
- Complete interviews, research, and Study Group discussions
- Develop findings and recommendations
- Begin next case study – Oil and Natural Gas or Transportation?

# Sample of Key Questions

- How is resilience defined and practiced by each of the CIKR sectors?
- What inhibits private industry's ability to implement resilience strategies?
- How well do companies understand cross-sector interdependencies and risks that may affect their resilience?
- How do existing government programs help or hinder private-sector resilience efforts?
- What steps might the government take to encourage critical infrastructure resilience in the private sector?

Questions?

# National Infrastructure Advisory Council (NIAC)

## Optimization of Resources for Mitigating Infrastructure Disruptions Working Group

July 13, 2010

Margaret Grayson  
Principal  
Essential2Management

Tom Noonan  
Former CEO  
Internet Security Solutions

# Overview

- Context: The DHS Mission
- Framing the Study
- Key Aspect: Enhancing the Synergy Between CIKR and Community Resilience
- Study Approach and Status
- Samples of Emerging Consensus Points
- Areas for Potential Recommendations
- Study Leadership

# Context: The DHS Mission

- **The Administration has established a new strategic framework for the Department of Homeland Security**
- **A core mission of resilience: “Foster individual, community, and system robustness, adaptability, and capacity for rapid recovery”**
  - Mitigate risks to communities
  - Enhance recovery capabilities
  - Ensure continuity of essential services and functions
- **An objective of ensuring *infrastructure* resilience:**
  - “Enhance the ability of critical infrastructure systems, networks, and functions to withstand and rapidly recover from damage and disruption and adapt to changing conditions”
- **An objective of ensuring *broad-based* resilience:**
  - “Improve capabilities of families, communities, private-sector organizations, and all levels of government to sustain essential services and functions”

# Framing the Study

- **The leading questions:**
  - What are the potential enablers of infrastructure resilience that can support and strengthen community resilience?
  - Are there significant weaknesses in infrastructure resilience that limit the ability of communities to achieve resilience?
- **Many critical sectors have established, well-proven programs and processes for resource sharing; e.g.**
  - Mutual-aid agreements
  - Pre-positioning and spares availability
- **CIKR may provide key resource capabilities; e.g.**
  - Lessons learned and model approaches
  - Leadership in planning and response for service restoration
  - Understanding of interdependencies, vulnerabilities, and options for resilient capabilities

# Key Aspect: Enhancing the Synergy Between CKR and Community 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. Key aspects:
  - Interdependency effects
  - Resource availability/flexibility/sharing
  - Time to service recovery
- **Community resilience** is the capability to return citizens to work, reopen businesses, and restore the basic services and economic stability of a community or a linked group of affected communities. Key aspects:
  - Understanding of shared dependencies – across communities, across services
  - Timing and coordination of resources – local, regional, and national

# Information Sources

- **Executive Interviews in Key CIKR Sectors**
  - *Strategic perspectives on interdependencies among sectors and communities*
- **Panel Discussions with SLTTGCC and RCCC Members**
  - *The intersection of sector and community resilience*
- **Interviews with Subject Matter Experts**
  - *Interdependencies and community effects*
- **Survey of Government Policies and Programs**
  - *Current practice: Federal, State, community*
- **Review of Community Resilience Studies and Literature**
  - *Case studies and best practices*

# Sample of Key Questions

- **Functions**

- What are current practices in aligning CIKR resilience with community resilience?
- Are there existing success models in public-private partnerships that can guide improvements in CIKR/community resilience?
- Where are the best areas of opportunity to achieve synergies among communities and sectors?

- **Resources**

- Are their key weaknesses in resource management and sharing?
- What are opportunities to enhance collaborative resource planning and management?

- **Government Policy and Programs**

- How do existing government programs help or hinder synergies in these areas?
- What steps might the government take to encourage the contribution of CIKR resilience to community resilience?

# Phasing of Outreach and Engagement

## Three Main Phases:

- **Capturing Community Perspectives and Insights**
  - Provides a “non-traditional NIAC” information baseline that crosscuts infrastructure sectors and service-delivery areas
  - SLTTGCC Roundtable
  - RCCC Roundtable
  - Discussions with other regionally-focused organizations and experts
- **Owner/Operator Engagements**
  - Interviews and discussions with SMEs from key sectors
  - Covers physical and cyber aspects of resilience
  - Shares results of first phase with infrastructure owners and operators
  - Builds joint picture of CIKR/community resilience
- **Comparing Community and Owner/Operator Perspectives**
  - Follow-up engagements to clarify and expand on identified issues
  - Improve joint understanding of problems *and* potential solutions

# Status of Engagement

- **SLTTGCC Perspectives:**
  - Roundtable: Two sessions conducted in June
  - Plenary session conducted with Office of the ASIP in April
- **RCCC Perspectives:**
  - Roundtable: Scheduled for July 20
  - Plenary session conducted with Office of the ASIP in early June
- **Subject Matter Expert Interviews Underway:**
  - Multiple critical sectors, including electricity, emergency services, telecommunications, and healthcare
  - Regionally-focused organizations/individuals

# Samples of Emerging Consensus Points

- Enhance understanding of interdependencies *within and across* communities
- Institutionalize relationships and best practices for communication and coordination *before* things go wrong
- Companies play a critical role in communities; coordination of public and private resources is critical
- Tailor Federal government coordination processes to reflect that “one size does not fit all”

# Areas for Potential Recommendations

- **Functions: Interdependency and Timing**
  - Improving tools for planning and assessment exercises such as table tops
  - Enhancing modeling capabilities for preparedness and response at state and community levels
- **Resources: Planning and Coordination**
  - Assuring availability of time-critical resources
  - Capitalizing on potential synergies in mutual assistance and resource sharing
- **Governance: Policy and Programs**
  - Enhancing the availability of current Federal programs (e.g., Protective Security Advisors, the Regional Resilience Accessibility Program)
  - Attaining alignment and synergy between bottom-up (community) and top-down (national) planning and strategy

# Study Leadership

- Working Group and Sponsors
  - **Peg Grayson**, Principal, Essential2Management
  - **Tom Noonan**, Former CEO, Internet Security Solutions
- Study Group (current membership)
  - **Peter Allor**, Senior Security Strategist, IBM Corporation
  - **Cherrie Black**, SLTTGCC Co-Chair and Chair, Regional Partnership Working Group
  - **Lt. Gen (ret.) Albert J. Edmonds**, Chairman, Edmonds Enterprise Services, Inc.
  - **Patrick Gray**, Principal Security Strategist, CISCO Systems
  - **David Kepler**, Executive Vice President, Chief Sustainability Officer, Chief Information Officer, Corporate Director of Shared Services, Dow Chemical
  - **James B. Nicholson**, President and Chief Executive Officer, PVS Chemicals, Inc.
  - **Ulle Seal**, SLTTGCC Chair

Questions?

New Business

**Chairman Nye**

# National Infrastructure Advisory Council (NIAC)

## **Information and Intelligence Sharing Review and Update – Proposed Study**

Al Berkeley  
Chairman  
Pipeline Trading Systems

# Background

- **The 2006 NIAC report, *Public-Private Sector Intelligence Coordination*, examined intelligence information sharing between the Federal government and CIKR owners and operators.**
- **Since then:**
  - State and local fusion centers are becoming an important vehicle for the DHS to share threat and risk information with State, local, tribal and territorial jurisdictions and CIKR owners and operators
  - DHS implemented the primary private sector component of the national information sharing environment (ISE), the CIKR ISE, in 2007.
  - DHS has adopted an all hazards framework for CIKR protection and resilience
  - DHS's critical infrastructure partners continue to identify information sharing as an area needing improvement.
- **A proposed NIAC study would**
  - review and assess the progress made since the 2006 report
  - identify gaps and recommendations for further improvement.

# Proposed Study Objectives

- Assess current information and intelligence sharing practices and strategies with the owners and operators of the nation's critical infrastructure.
- Identify enhanced processes that can reduce CIKR risks by improving public and private sector information sharing.
- Recommend policies and practices to improve information sharing among CIKR sectors, State and local governments, and the Federal government.

# Issues to Consider

- **Issue:** DHS-provided information often lacks substance on risk information and trends and is not accompanied by actionable recommendations to prevent a potential threat.
  - **Potential Inquiry:** How can the resource of the Fusion Centers and Protective Security Advisors (PSAs) best be leveraged and tailored to meet the information sharing needs of stakeholders?
- **Issue:** A range of CIKR stakeholders are unaware of how to work with Fusion Centers, or may not even know that they exist.
  - **Potential Inquiry:** What is the best means to inform CIKR owners and operators about Fusion Centers and make it easy for them to access and work with the Centers?
- **Issue:** Companies and sectors gather a wealth of relevant information through their existing relationships with private sector groups and State, regional, and local partnerships. How best to connect into this rich source of information and facilitate its integration at the local, state and national level.
  - **Potential Inquiry:** How can DHS build on existing field-level relationships, such as PSAs and Fusion Centers, to connect local groups with regional and national coordination efforts? Are field-level personnel well positioned to enhance information distributed to the private sector and provide value-added analysis based on CIKR partner's needs in their area?

# Issues to Consider

- **Issue:** DHS does not fully understand the capabilities and limitations of their CIKR partners
  - **Potential Inquiry:** How can DHS best communicate directly with CIKR owners and operators to achieve greater information sharing and operations coordination?
- **Issue:** Complex interdependencies among CIKR sectors make it difficult for companies to understand and evaluate shared cross-sector risks.
  - **Potential inquiry:** Can the HSIN-CS portal be used to develop new capabilities for enhancing cross-sector and intra-company visibility and collaboration?

# Conclusion

- With this study, the NIAC has an opportunity to identify and provide recommendations to improve critical information sharing efforts and shape new ones by drawing on past NIAC recommendations and focusing on four strategic elements:
  - Focused Private Sector Engagement;
  - Strategic Communications Coordination;
  - Regionally Focused Engagement; and
  - Public-Private Sector Outreach and Accountability
- **The Goal:** Timely, Sustainable, and Coordinated Information Sharing Processes

Questions?

# 2011 NIAC

## Quarterly Business Meetings

### Dates for Consideration

- January 18 – Third Tuesday
- April 19 – Third Tuesday
- July 12 – Second Tuesday
- October 11 – Second Tuesday

# Closing Remarks

**Todd Keil**

Assistant Secretary

Office of Infrastructure Protection  
Department of Homeland Security

Adjournment

**Chairman Nye**