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#### NATIONAL INFRASTRUCTURE ADVISORY COUNCIL

#### **BUSINESS MEETING AGENDA**

Hilton Washington Embassy Row Ambassador Ballroom 2015 Massachusetts Avenue NW Washington, DC 20036 October 19, 2010 1:30 PM – 4:30 PM EDT

I. Nancy J. Wong, Designated Federal Officer **OPENING OF MEETING** (DFO), NIAC, Department of Homeland Security (DHS) II. **ROLL CALL OF MEMBERS** Nancy J. Wong, DFO, NIAC, DHS NIAC Chairman Erle A. Nye, Chairman **III. OPENING REMARKS AND** Emeritus, TXU Corp. **INTRODUCTIONS** Todd Keil. Assistant Secretary for Infrastructure Protection (IP), DHS

#### IV. APPROVAL OF JULY 2010 MINUTES

- V. WORKING GROUP DELIBERATIONS: A FRAMEWORK FOR ESTABLISHING CRITICAL INFRASTRUCTURE RESILIENCE GOALS
- VI. APPROVAL OF STUDY REPORT: A FRAMEWORK FOR ESTABLISHING CRITICAL INFRASTRUCTURE RESILIENCE GOALS

The Honorable Rand Beers, Under Secretary for the National Protection and Programs

Directorate (NPPD), DHS

NIAC Chairman *Erle A. Nye*, Chairman Emeritus, TXU Corp.

Alfred R. Berkeley, Chairman, Pipeline Trading Systems, LLC (former Vice-Chairman, The NASDAQ Stock Market, Inc.), NIAC Vice-Chairman, Working Group Co-Chair; and Michael Wallace, Vice-Chairman and COO, Constellation Energy, Chairman, UniStar Nuclear Energy, Chairman, Constellation Energy Nuclear Group, NIAC Member, Working Group Co-Chair

NIAC Chairman *Erle A. Nye*, Chairman Emeritus, TXU Corp.

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VII.	WORKING GROUP Deliberations: Optimization of Resources for Mitigating Infrastructure Disruptions	Margaret E. Grayson, President, Grayson & Associates, NIAC Member, Working Group Co-Chair; and <i>Thomas E. Noonan</i> , Former General Manager, IBM Internet Security Systems, NIAC Member, Working Group Co-Chair
VIII.	APPROVAL OF STUDY REPORT: Optimization of Resources for Mitigating Infrastructure Disruptions	NIAC Chairman <i>Erle A. Nye</i> , Chairman Emeritus, TXU Corp.
IX.	DISCUSSION OF NEW POTENTIAL STUDY TOPICS	NIAC Chairman <i>Erle A. Nye</i> , Chairman Emeritus, TXU Corp.
X.	PUBLIC COMMENT	Nancy J. Wong, DFO, NIAC, DHS
XI.	CLOSING REMARKS	<i>Sue Armstrong</i> , Deputy Assistant Secretary for IP, DHS
XII.	Adjournment	NIAC Chairman <i>Erle A. Nye</i> , Chairman Emeritus, TXU Corp.

#### **MINUTES**

#### NIAC MEMBERS PRESENT IN WASHINGTON:

Mr. Erle A. Nye; Mr. Alfred Berkeley, III; Ms. Margaret Grayson; Mr. Philip Heasley; Mr. David Kepler; Mr. Michael Wallace

#### NIAC MEMBERS ATTENDING VIA CONFERENCE CALL:

Lt. Gen. (ret.) Albert Edmonds; Mr. Gilbert Gallegos; Mr. James B. Nicholson; Mr. Thomas Noonan; Hon. Tim Pawlenty; Mr. James Reid; Mr. Bruce Rohde

#### MEMBERS ABSENT:

Mr. David Bronczek; Mr. Wesley Bush; Commissioner Raymond Kelly; Mr. Greg Peters; Dr. Linwood Rose; Mr. Matthew Rose; Mr. Greg Wells; Ms. Martha Wyrsch

#### SUBSTANTIVE POINTS OF CONTACT PRESENT IN WASHINGTON:

Mr. Ed Goetz (for Mr. Michael Wallace); Mr. Bill Muston (for Chairman Erle Nye); Ms. Robin Holliday (for Vice-Chairman Berkeley)

#### SUBSTANTIVE POINTS OF CONTACT ATTENDING VIA CONFERENCE CALL:

Mr. Stanley Szemborski (for Mr. Wesley Bush); Sergeant Martin Wingert (for Commissioner Raymond Kelly); Mr. Joe Long (for Mr. Greg Peters)

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#### **OTHER DIGNITARIES PRESENT:**

Mr. Brian Kamoie, White House, National Security Staff, Senior Director for Preparedness Policy; The Honorable Rand Beers, Under Secretary for the National Protection and Programs Directorate (NPPD), DHS; Mr. Todd Keil, Assistant Secretary for Infrastructure Protection, DHS; Ms. Sue Armstrong, Deputy Assistant Secretary for Infrastructure Protection, DHS; and Ms. Nancy Wong, DFO, NIAC, DHS

Members of the public providing comment during the Public Comment Period:

James W. Conrad, Jr., Principal, Conrad Law & Policy Counsel

#### I. OPENING OF MEETING Nancy J. Wong, DFO, NIAC, DHS

Ms. Nancy Wong, the DFO for the NIAC, called the meeting to order and welcomed all individuals, both in person and via teleconference, to the NIAC Quarterly Business Meeting. Ms. Wong introduced Chairman Nye, Vice-Chairman Berkeley, and Assistant Secretary for Infrastructure Protection Todd Keil as well as the other NIAC members.

Prior to conducting the NIAC roll call, Ms. Wong provided a brief synopsis of the Council, its formation, history, pertinent reports and studies produced, and positive feedback and reception of its products by DHS, the homeland security community, and the rest of the Federal Government. She noted that in October 2009, Executive Order 13511, signed by the President of the United States, renewed the NIAC charter, a document that outlines the role of the Council as providing both the President and Secretary for DHS with advice on the security of critical infrastructure and key resources. She reiterated that the NIAC is a presidentially appointed council, and that its work relates directly to Homeland Security Presidential Directive 7 (HSPD-7), which establishes a national policy for Federal departments and agencies to identify and prioritize United States critical infrastructure and key resources and protect them from terrorist attacks.

Ms. Wong stressed the importance of the public and private sector partnership, which is exhibited in the Council and in the critical infrastructure and key resources environment, and on which the national economy and public safety depend. To date, 18 studies have been completed which have dealt with matters ranging from public and private sector cooperation, to risk assessments, and intelligence information sharing. Ms. Wong closed with a brief recap of the agenda for the day, highlighting the deliberation and vote for adoption of two Council studies as well as an in-depth discussion and possible adoption of a DHS request for a NIAC study on information sharing.

#### II. ROLL CALL

Nancy J. Wong, DFO, NIAC, DHS

Ms. Wong called the roll and recorded attendance noting whether members were attending in person or via teleconference.

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III.	<b>OPENING REMARKS AND</b>	NIAC Chairman Erle A. Nye,
	INTRODUCTIONS	Chairman Emeritus, TXU Corp.

Upon completion of the roll call, Ms. Wong reminded members of the Council that the meeting is open to the public and that care should be taken if and when discussing issues of a sensitive matter. In addition, she noted that at the end of the meeting, there would be a public comment period for individuals who had pre-registered to speak, with each speaker being allowed three minutes. Ms. Wong stated that if the public wished to submit comments for consideration by the Council, they should follow the guidance and protocols described in the Federal Register notice for the meeting. Ms. Wong then turned the meeting over to Chairman Nye.

Chairman Nye thanked Ms. Wong and welcomed all attendees to the meeting, either individuals attending in person or via teleconference. He mentioned the two studies which were before the Council and stated that he was very impressed with the results of each report. He also expressed his appreciation to the NIAC members who had shown interest in participating in the proposed Information Sharing Study up for deliberation.

Chairman Nye stated that he and the entire Council appreciated the support received from officials at the DHS, as well as other Federal officers in the current Administration. He specifically mentioned and thanked Under Secretary Rand Beers, Assistant Secretary Todd Keil, and Deputy Assistant Secretary Sue Armstrong. Their support indicates to him that DHS still finds value in the NIAC's work. Mr. Keil was then invited to make an opening statement.

Assistant Secretary Keil thanked Chairman Nye, Vice-Chairman Berkeley, and the members of the NIAC, and welcomed all individuals present at the meeting. He stated that it was an honor and a privilege to be in attendance and would keep his comments brief to allow the Council to proceed to the agenda for the day. Mr. Keil mentioned that he would touch on four critical issues: the status of NIAC membership; current NIAC studies and how the Office of Infrastructure Protection (IP) planned on leveraging this work; the proposed Information Sharing Study that was before the Council for adoption; and current initiatives that IP is working on.

Mr. Keil, starting with the issue of NIAC membership, stated that he and the entire Department were appreciative of the Council's efforts to date, and that he was working with the White House liaison at the Department to have new members appointed. He recognized that due to the decreased membership of the Council, there was a burden on current members, and he promised to keep members updated on any new information. He also pledged his continued support.

The current studies before the committee and how IP intended to leverage them was the next topic of discussion by Mr. Keil. He described both the *Framework for Establishing Critical Infrastructure Resilience Goals* and *Optimization of Resources for Mitigating Infrastructure Disruptions* studies as valuable tools that will build upon the Department's

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efforts. He noted that both reports focus on the key DHS area of resilience and that this topic is one of the five key mission areas of the recently released Quadrennial Homeland Security Review (QHSR). Mr. Keil stated that the examination of the Electric and Nuclear Sectors as well as the study of the synergy between infrastructure and community resilience are both critical issues. He also mentioned that the recommendations found within each report will assist the Department as it continues to enhance educational and outreach activities.

Focusing his attention on the proposed NIAC study on information sharing, Mr. Keil mentioned that this issue is the number one topic raised to him and his office as he travels throughout the country. While he noted that substantial progress has been made regarding this issue, he expressed that it still requires more detailed attention to achieve enhanced communication and coordination. Mr. Keil stated that he hoped this proposed study would be adopted by the Council and that, if approved, the resulting recommendations would assist the Government in sharing critical information with the private sector.

Mr. Keil next moved his discussion to a current IP initiative. To assist in addressing the issue of intelligence information sharing with the public sector, he noted that his office was bringing in the private sector on the front end of discussions. Private sector members with current clearances have been brought into these discussions to determine the best path forward for critical information sharing. From these discussions, IP has been able to make informed decisions on how better to share information with their private sector partners.

Mr. Keil continued his remarks by commenting on the future of IP. He reiterated the importance of the partnership with the private sector and mentioned that it is critical that the NIAC has the ability to gain perspective and insight from outside of Washington, DC, so that the Department can utilize it when formulating future programs and policies. Mr. Keil stated that one goal moving forward for his office is to enhance and build upon the concept of regionalization. The establishment of a regional approach provides the ability to identify issues and concerns from a different perspective. This approach would allow the office to better understand the needs of its partners, both the private sector and State and local governments. While these partnerships would allow for greater coordination and communication, Mr. Keil stated that they would not come at the expense of the national partnership that currently exists.

Assistant Secretary Keil closed his remarks by touching on four final issues, starting with the linkage of the national risk profile to the *National Critical Infrastructure and Key Resources Protection Annual Report*. The linkage of the national risk profile to the national annual report into the budget will help identify where money and funds are being spent. On the topic of the National Infrastructure Protection Plan (NIPP), he stated that a goal of the office is to take the NIPP to an enhanced level. While acknowledging that the current NIPP has been an effective tool for the homeland security community, an enhanced version would improve upon current gaps and seams found within the document. Mr. Keil mentioned the issue of international engagement, most notably with

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the United Kingdom, Canada, Mexico and Brazil, and identified it an important issue that the office would continue to look at, especially as it relates to cross-border interdependencies, which is a key focus of the Department. The final initiative mentioned by Mr. Keil was the DHS Voluntary Private Sector Preparedness Accreditation and Certificate Program (PS-Prep), a response to a portion of the 9/11 Commission recommendations, and was created to enhance business continuity by the private sector in the event of a natural disaster. It was his hope that the Council would examine PS-Prep and assist the Department in building momentum for it.

Mr. Keil thanked Chairman Nye and the NIAC members for their support and partnership. He looked forward to the Council's insight on the initiatives that he discussed which would help to gain leverage and traction on these critical programs. Chairman Nye thanked Mr. Keil for his comments and stated that his remarks on NIAC membership had reassured him that the Council would be able to return to its authorized number. Before moving to the adoption of the July 2010 Quarterly Business Meeting minutes, he stated to Mr. Keil that the Council would be happy to look at PS-Prep and offer recommendations that could help with this initiative. Chairman Nye also stated to Mr. Keil that the Council would assist with any additional issues requested by the Department. Chairman Nye noted that Deputy Assistant Secretary Armstrong was also in attendance and would be providing closing comments upon completion of the NIAC businesses for the day.

#### IV. APPROVAL OF JULY 2010 MINUTES

*NIAC Chairman Erle A. Nye,* Chairman Emeritus, TXU Corp.

Chairman Nye moved to the adoption of the minutes for the July 2010 NIAC meeting and asked if Council members had any comments or corrections. With no comments or corrections raised, Chairman Nye entertained a motion to approve the July 2010 meeting minutes. Governor Pawlenty motioned to approve the minutes which was seconded by Mr. Wallace. With the motion being seconded, Chairman Nye prompted the NIAC to vote aye or nay on approval of the July minutes. The NIAC members unanimously responded in the affirmative. Chairman Nye confirmed that the motion was passed by voice vote and that the minutes from the July 2010 NIAC meeting were approved.

Upon adoption of the July 2010 NIAC Quarterly Business Meeting minutes, Chairman Nye introduced the Council reports that were to be deliberated and voted on during the meeting. Mr. Nye stated that both the *Framework for Establishing Critical Infrastructure Resilience Goals* and the *Optimization of Resources for Mitigating Infrastructure Disruptions* studies were efficiently and effectively completed and that he looked forward to the presentations by each Working Group.

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V. WORKING GROUP DELIBERATION: A Framework for Establishing Critical Infrastructure Resilience Goals *Alfred Berkeley, III, NIAC Vice-Chairman*, Chairman, Pipeline Trading, LLC

Michael Wallace, NIAC Member Vice-Chairman and COO, Constellation Energy; Chairman, UniStar Nuclear Energy, Chairman, Constellation Energy Nuclear Group

Chairman Nye introduced the *Framework for Establishing Critical Infrastructure Resilience Goals* study by stating that it represented a continuation of prior work conducted by the NIAC on the issue of resilience. He also extended his appreciation to Mr. Berkeley and Mr. Wallace for their dedication and leadership on the study. He then turned the meeting over to Vice-Chairman Berkeley and Mr. Wallace for their presentation.

Vice-Chairman Berkeley provided a brief background on the study. The Electric and Nuclear Sectors were selected for examination with the intent of developing a framework for other sectors to establish resilience goals. Mr. Berkeley stated that this process resulted in a framework that should be examined by other sectors as a model for identifying their own resilience goals. Upon completion of his opening remarks, Mr. Berkeley deferred to Mr. Wallace for the study's formal presentation to the NIAC.

Mr. Wallace thanked both Chairman Nye and Vice-Chairman Berkeley and stated that each Study Group meeting had been productive, with engaging dialogue and observations discussed by all members. This study built upon both the 2008 NIAC study titled *Critical Infrastructure Partnership Strategic Assessment* and the 2009 study on *Critical Infrastructure Resilience*. Mr. Wallace stated that this study focused on current resilience practices, with the objective of developing a process that other sectors could utilize to develop their own resilience goals. The study recommends specific steps to improve practices and creates a template for the process of identifying resilience goals, which can be achieved by all critical infrastructure sectors.

Mr. Wallace explained that a case study of the Electric and Nuclear Sectors was identified as the best approach to achieve optimal results. Since the Nuclear Sector had gone through the DHS Comprehensive Review process in recent years, a greater emphasis was placed on the Electric Sector, with the template created for the Nuclear Comprehensive Review Process being applied to the Electric Sector. Within the case study, four main steps were identified; an assessment of current resilience practices and strategies; an assessment of sector resilience in a "stressed" state; the development of a process for developing sector goals; and identification of policies and practices to enhance sector resilience.

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Study Group members and Subject Matter Experts that participated in the study were identified by Mr. Wallace. He mentioned that they were an extremely impressive group of practitioners and experts found within the Electric and Nuclear Sectors and included executives, individuals in research and development, and policy leaders from around the country. Study Group discussions proved pivotal in gathering input and data that was incorporated into the report. Mr. Wallace thanked all participants for their hard work and dedication to the study and noted that the report would not be as complete without their input. In addition, Mr. Wallace acknowledged and thanked all of the individuals who participated in the CEO Roundtable that occurred in July. An important aspect of the case study was the ability to reach out to executives in these sectors to gather their insights and have the information and data vetted and validated by experts and decision-makers in the field.

The study presentation next focused on a discussion of the four dimensions of the resilience construct, which were identified by Mr. Wallace as Robustness, Resourcefulness, Rapid Recovery, and Adaptability. Robustness was identified as the ability to absorb shocks or disruptions and have the ability to keep operating. Resourcefulness is the ability to manage as a disaster, manmade or naturally occurring, unfolds. Rapid Recovery was defined as the ability to get back to a state of normalcy as quickly as possible. The final dimension of the resilience construct is Adaptability, which was defined as the ability to absorb best practices and lessons learned from a catastrophe and apply them were they are applicable.

Mr. Wallace next focused on the Electric Sector case study inputs and identified these as establishment of baseline resilient practices, identification of gaps in resilience, and the proposed private and public sector roles and actions for achievement. To establish a baseline of resilient practices, specific inputs were required by the group, which included Subject Matter Expert interviews, the weekly Study Group discussions that occurred throughout the process, and the review of more than one hundred studies and other relevant literature. To identify gaps in resilience for high impact events, a stress test at Baltimore Gas & Electric (BGE) was incorporated into the study. This stress test was designed to affect the Electric Sector at a level that went beyond usual exercise scenarios, with the hope of identifying gaps that could be addressed for a high impact, low frequency event as well as be applied for lesser incidents. During this exercise, permanent destruction of critical assets and transmission lines occurred with additional injects that made it difficult for industry experts to respond.

The final objective for the case study inputs was to identify proposed public and private sector roles and actions to achieve greater resilience. This was achieved through the CEO Roundtable, group deliberations, and the Subject Matter Expert interviews that occurred throughout the study. These processes showed that there is a good understanding of both public and private sector roles and that coordination allows for industry to be better focused and better able to discuss sector specific goals with the Government.

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Sector-specific resilience goals and the basis for their establishment was the next topic of the presentation. The framework of the process involves four main steps: an examination of baseline sector resilience practices established using the resilience construct with prospective goals development; introduction of a high-impact scenario designed to reveal gaps and seams in sector resilience; an examination of public and private sector responsibilities and policies to address gaps and seams found; and the development and refinement of sector goals. Mr. Wallace reiterated that the establishment of refined resilience goals would be the work of each sector in a public and private partnership—not the work of this group. Therefore, this group ended the process at this point but achieved their goal of setting a framework that other critical infrastructure sectors could use in the future to establish resilience goals.

Mr. Wallace stated that from this study a number of key messages were identified and, in many ways, were the most important outcome of the study. He noted that a clear message of the study is that both the Electric and Nuclear Sector are and continue to be extremely resilient. However, he stated that this would become more challenging as technology enhancements would result in new and emerging risks that would affect each sector in ways not before seen or identified. Another message identified was that infrastructure resilience is a shared responsibility that would require the distinct expertise, capabilities, and combined resources of both the public and private sectors. The private sector can only go so far in protecting assets, and at some point there is a need for public sector help and guidance as an incident shifts to a national level. The final two key messages identified by Mr. Wallace were that sector owners and operators are best equipped to design, build, operate, and maintain their infrastructure, aided by Government information sharing and assistance during disasters and that the public and private partnership is the most effective strategy for achieving infrastructure resilience.

Mr. Wallace next presented on the 10 distinct findings from the *Framework for Establishing Critical Infrastructure Resilience Goals* Study, which will assist in establishing more resilient sectors. The first finding is that, while the U.S. Electric and Nuclear Sectors are highly reliable and resilient, the scope and depth of practices used routinely by the sectors are not well understood outside of the sector or communicated by the sector to others. The second finding is that current Electric and Nuclear Sector practices suggest an implied set of sector goals based on the framework for resilience. The third finding states that the risk landscape is changing in ways that may affect both the reliability and resilience of the Electric Sector. Under this finding, Mr. Wallace mentioned that steps will need to be taken to address this changing landscape. Increased cyber monitoring and control of the Electric Grid has reshaped risks in ways that are not fully understood to date, and there is still a dynamic learning curve underway to deal with and gain situational awareness of cyber threats.

The fifth finding introduced by Mr. Wallace was that the sector independency risks faced by the Electric Sector include fuel supply, telecommunications, information technology, transportation, and water. It was noted that the Electric Sector cannot exist by itself, and for it to be effective when dealing with disasters, it will need the assistance of other

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critical sectors. Additionally, the limited availability of extra-high-voltage transformers in crisis situations presents a challenge and potential supply chain vulnerability. According to Mr. Wallace, the group spent considerable time discussing this finding and many experts noted that high-voltage transformers are not a homogeneous entity; there are multiple sizes, styles, and characteristics found within the sector. The ability of utilities to achieve greater levels of resilience is constrained by market, regulatory, and technical factors. While the desire and knowledge is there, these constraints are an issue that has to be identified and addressed.

Mr. Wallace closed this section of the presentation by identifying the final three findings of the study starting with the finding that Government information sharing on risks to the sector has improved, but more has to be done to achieve greater resilience. Mr. Wallace stated that recommendations found within the report address ways to better improve this finding. Next he discussed restoration planning, including black start capabilities, which provides an effective measure of recovery but deserves more in-depth attention. This was another finding that received considerable discussion, most notably at the CEO Roundtable, and is an important topic due to the fact that if power went out in the entire sector, black start capability could be needed to bring the sector back on line. The final finding covered by Mr. Wallace was that Boards of Directors at power companies receive a high volume of risk information, although it remains difficult to communicate and quantify operational risks in a rapidly changing environment.

Mr. Wallace went on to discuss the nine recommendations from the *Framework for Establishing Critical Infrastructure Resilience Goals* report highlighting each one individually. The first recommendation is that there is a need for senior executives from both the Electric and Nuclear Sector to meet regularly with senior current Administration officials. This dialogue should discuss the respective roles and responsibilities of the private and public sector in addressing high-impact infrastructure risks and potential threats, using an established high-level forum for trusted discussions between industry executives and government leaders.

The second recommendation was that the Nuclear and Electric Sectors should each develop an emergency response plan that outlines a coordinated industry-wide response and recovery framework for a major nationwide disaster. He noted that both industries have individual capabilities to deal with such incidents but a plan for a wide ranging disaster is not well developed.

The third recommendation was that DHS and other Federal agencies should improve information sharing with the private sector by providing focused, actionable, and opensource information on infrastructure threats and vulnerabilities. For this recommendation, Mr. Wallace noted that opportunities to have classified briefings are important, but it is also important to get open-source information, which allows for distribution industry-wide.

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The fourth recommendation was that all critical infrastructure sectors should consider adopting the self-governance model exemplified by the Institute of Nuclear Power Operations (INPO) and the North American Transmission Forum (NATF), which would allow the private sector to collaborate on resilience and security issues outside of the regulatory compliance process. It was mentioned that the self-governance model provides an avenue to go beyond compliance and an incentive to move to a higher level of performance by companies.

With respect to promoting the use of the NIAC-developed framework for setting resilience goals in the critical infrastructure sectors, Mr. Wallace stated that this recommendation provides a way to organize resilience strategies within Federal and State Governments and the critical infrastructure sectors.

The sixth recommendation introduced was that the Department should support modeling and analysis studies of the cross-sector economic impacts of critical infrastructure failures using tools such as input-output analysis.

The seventh recommendation is that Federal and State agencies should allow cost recovery for utility investments that increase infrastructure resilience. Mr. Wallace stressed that this recommendation sought to reiterate that ensuring economic recovery is important and recognized.

The last two recommendations dealt with extra-high-voltage transformers and cybersecurity. Regarding high-voltage transformers, Mr. Wallace noted that the Electric Sector and Government leaders should pursue options to mitigate this potential supply chain vulnerability, as this asset is both expensive and timely. The cybersecurity issue was mentioned as a subject that was not examined in depth, but as something that the Federal Government needs to work with owners and operators on to clarify agency roles and responsibilities in the Electric Sector, including those for emergencies and highly sophisticated threats.

Mr. Wallace closed the presentation by thanking Chairman Nye and the Council members and deferred to Mr. Berkeley for any additional comments. Mr. Berkeley responded that he did not have any closing comments, and Mr. Wallace then asked if there were any questions from the Council. Assistant Secretary Keil asked how the group generally defined the topics of emerging risks, changing landscape, and new threats. Mr. Wallace stated that he would attempt to answer the question but wanted to avoid getting into specifics that could be deemed inappropriate for the broader audience in attendance. One example offered was control systems vulnerability—a subject that has been reported on publicly. Project Aurora is one specific example, but he noted that this has not yet been fully vetted and mitigated in the Electric Sector. The final example introduced by Mr. Wallace was the sub-standards found under the established cyber standards established for the Electric Sector, and he expressed that these take into account the new emerging threats to the sector.

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After Mr. Wallace completed his response to Mr. Keil, Mr. Berkeley asked if he could offer additional comments. He noted that this Study Group included Mr. Ken Daly, who is president and CEO of the National Association of Corporate Directors. The decision to include Mr. Daly was made so as to have a link to the Board, not only for the Nuclear and Electric Sectors, but for all of the critical infrastructure sectors. Mr. Daly's involvement allowed the group to better understand the governance level and to see how corporations could be engaged more at the operational level. This insight will help assist other sectors as they identify resilience goals.

Mr. Berkeley then asked the Study Group members in attendance to stand up and be recognized for their work and service to the project. Study Group individuals in attendance included: Mr. Terry Boston, Mr. William Ball, Mr. Ken DeFontes, Mr. Ed Goetz, and Ms. Debra van Opstal. Mr. Berkeley encouraged Assistant Secretary Keil and other representatives at the Department to identify these individuals as well as the individuals who participated in the CEO Roundtable, as Subject Matter Experts who could help the Department on future projects.

Chairman Nye stated that the report before the Council could be identified as a best practices document that other sectors could use in the future when developing resilience goals and he identified the CEO Roundtable and stress test exercise at BGE as two specific examples. He asked if some of the emerging risks to the Electric Sector grow out of the control systems, and Mr. Wallace stated that this is an accurate assessment that demonstrates the critical need for CEOs in the Electric Sector and current Administration officials to come together in a forum to discuss this specific threat. This collaboration would be invaluable in determining what public sector policies and private sector actions are necessary. Since not all senior executives have the necessary clearances to participate in classified briefings, interaction before an incident in an open setting would allow for situational awareness to be gained by these individuals who could then drive priorities for the sector as well as their individual businesses.

Chairman Nye asked about the issue of the smart grid, and Mr. Wallace asked that Mr. DeFontes, a member of the Study Group, respond to this question based on his expertise. Mr. DeFontes stated that there were great advantages to the smart grid as the industry begins to deploy new technologies to the end user but that this concept also introduces additional vulnerabilities. He noted that the industry is at a point where it recognizes the need to build the right standards into the foundation versus starting over in the process. Mr. DeFontes closed by stating that he is comfortable that the Electric Sector is looking forward, but noted that technology enhancements will result in a new variety of risks that have yet to be addressed.

Chairman Nye continued his questions to the group, asking how the North American Transmission Forum (NATF) relates to the North American Electric Reliability Corporation (NERC). Mr. Wallace asked that Mr. Boston speak to this issue, given his service to the NATF. Mr. Boston stated that the NATF was created on August 14, 2003 after the Northeast blackouts as part of the NERC structure to provide a forum for the

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industry to meet and discuss threats in a confidential environment. He noted that on January 1, 2010, it was established as a not-for-profit entity, modeled after the Institute of Nuclear Power Operations (INPO). Mr. Boston concluded his remarks by saying that the NATF is set up much like its Nuclear Industry partner and currently has 12,000 volunteers with 94 of them working specifically on the cyber threat.

Mr. Ball was asked by Chairman Nye and Mr. Wallace to discuss the issue of reserve transformers. He noted that given their size and unique properties, the ability to obtain and store reserve transformers has long been a historical problem for the industry. However, there is currently research and development being conducted, specifically recognizing DHS and the Edison Electric Institute (EEI) as leaders in this initiative. Mr. Ball stated that EEI has set up a spare transformer listing, which is designed to help assist the industry if several units fail. Members provide a list of available transformers that participating companies are able to view if they have a need for a reserve asset. Despite the programs mentioned, Mr. Ball stated that historically the problem has been that there was no production by U.S. manufacturers, which severely hindered the response time. However, today there are two or three manufacturers operating within the United States, which have the capability to produce these large units. Mr. Nye asked if the industry was better off now than 10 years ago due to this U.S. manufacturing and Mr. Ball stated that it was.

#### VI. Approval of Study Report: NIAC Chairman *Erle A. Nye, A Framework for Establishing Critical Infrastructure Resilience Goals*

With no additional questions for Mr. Wallace, Mr. Berkeley, or any of the Study Group members present, Chairman Nye moved to adopt the *Framework for Establishing Critical Infrastructure Resilience Goals* Report. He asked if any Council members had any amendments, changes, or additions, and hearing none, he entertained a motion for approval by the NIAC. Ms. Grayson offered a motion for adoption that was seconded by Mr. Kepler. Hearing no objections, Chairman Nye asked for a vote of approval and the Report was adopted unanimously.

VII.	<b>Discussion of Potential New</b>	NIAC Chairman Erle A. Nye,
	Study Topics	Chairman Emeritus, TXU Corp.

Chairman Nye requested that the agenda for the meeting be adjusted to accommodate Under Secretary Rand Beers who had arrived to participate but would have to leave to attend to other Department matters. Upon approval of the Council, Mr. Nye welcomed Mr. Beers and allowed him to offer remarks.

Under Secretary Beers thanked Chairman Nye, Vice-Chairman Berkeley, and all members of the NIAC for allowing him to participate in the Council's meeting. He

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acknowledged and thanked both the Council and Study Group members for their dedicated work on the two reports before the NIAC and stated that these reports would assist the Department in their oversight responsibilities. Mr. Beers noted that the majority of his comments today would focus on the proposed Information Sharing Study that was before the Council for adoption.

Under Secretary Beers mentioned that the Department is currently consumed with the European threat stream and potential attacks on Western Europe. He noted that these types of threats had the potential to present themselves in the United States, and that the Department was monitoring the situation along with the Intelligence Community. To gain situational awareness, the Department has had ongoing dialogue with its European allies, which will continue. Mr. Beers stated to the Council that it is public knowledge that there has been an upswing in the number of legal permanent residents in the United States. The Department has monitored this issue noting that while the majority of these individuals pose no threat, a legal permanent resident living in the United States who wished harm on the country would have free access within America.

To address this security threat, the Department has gone beyond past practices and distributed information that will allow State, local, tribal, territorial, and private sector entities to have situational awareness and guidance on what is of concern to the Department and the measures that will assist in protecting the country and its critical infrastructure assets. To achieve this goal, Under Secretary Beers mentioned that the Department needed feedback from partners to ensure that useful information is being distributed and guidance on a framework to disperse this critical information. This type of information would be distributed at the sensitive but unclassified level (SBU) to help ensure that partners within the homeland security community are able to receive the information and better protect themselves and the communities that surround them.

While much of this effort has been directed at providing fusion centers in State and local government with information, Department officials have been traveling around the country and reaching out directly to the private-sector community with information. The outreach to the private sector has included dialogue on the types of attacks that terrorists have been employing overseas, how these have been organized, and the potential for these types of organized attacks to occur within the United States. Specific venues mentioned by Under Secretary Beers included: shopping centers, hotels, sporting events, mass transit systems, and standard aviation.

Given the recent European threat and the fact that the United States will continue to be a target of terrorists worldwide, Mr. Beers stated that the proposed Information Sharing Study would be a timely endeavor that would benefit the Department and the entire Intelligence Community. It would provide both a critical assessment of current information sharing capabilities and a framework for how to better address any gaps or seams that are identified. Previous NIAC reports have assisted in building mitigating measures for the critical infrastructure community and this new study would help establish more robust preventive measures. Under Secretary Beers closed by

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acknowledging the Council for its responsiveness to all Department requests and thanked Chairman Nye for the opportunity to participate in the meeting.

Chairman Nye thanked Under Secretary Beers for his comments and reported that he foresaw a favorable decision on the undertaking. He noted that the majority of NIAC studies in the past had two participating Council members and that to date, four members had already expressed an interest in contributing, which shows that the NIAC views this as a critical topic. Mr. Nye suggested that Mr. Berkeley conduct his presentation on the NIAC proposed Information Sharing Study while Under Secretary Beers was available.

Vice-Chairman Berkeley thanked Chairman Nye and Under Secretary Beers and mentioned that the Department had requested a follow-up study on information sharing that examined work previously completed, to include the 2006 NIAC report on Public-*Private Sector Intelligence Coordination*, in addition to a current assessment of programs and policies in place regarding the topic of information sharing. In September of 2010, a scoping group was formed to discuss particular issues regarding intelligence information sharing that could be part of this study. The group suggested that the study focus on the Department's request for an update on intelligence information sharing; current situational awareness of information sharing by the public and private sector, timeliness, and relevance; the jurisdictional and legal issues faced; the current status and role of fusion centers in the process; a better understanding of current classification issues; and the flow of information between the public and private sector, with ways to improve the process and address identified gaps. The approach of this study would be to identify perspectives from leading executives, practitioners, and Subject Matter Experts in the various critical infrastructure sectors, similar to the process that followed the *Framework* for Establishing Critical Infrastructure Resilience Goals Study.

Mr. Berkeley went on to state that there would be a need to identify individuals who understand the issue of information sharing and can provide critical insights. Since success for this study requires substantial trust and communication with the Intelligence Community, it was noted that this study would take considerable time to complete and therefore has an identified timeline goal of one year. He reiterated that, with all NIAC studies, the goal is not to criticize the public or private sector, but to introduce ideas and insights that might be beneficial to improving current practices or policies. It will also be critical to have both public sector and private sector owners and operators on the Working and Study Group to best examine information sharing between the public and private sector.

Mr. Berkeley introduced the potential study approach that was identified by the scoping group for the proposed Information Sharing Study. The study would first identify a predetermined number of sectors as an examination of all eighteen sectors would not be possible or provide productive results. The group would work with DHS to identify the sectors that are of particular interest, and upon determination of these, a work plan would be established with a schedule that would conclude at the identified timeframe of a year. He stated that the NIAC Working Group for this study could potentially include Mr.

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Berkeley, Mr. Bush, Mr. Heasley and Mr. Nicholson, as well as any other Council members who would like to participate.

Mr. Berkeley expressed concern regarding the issue of counter-intelligence and noted that this issue could depend on how many subjects the group can take in the identified period of time. He also noted that the subject could lead to a high level classification issue with the Intelligence Community. Mr. Beers mentioned that he had spoken to Chairman Nye and that the Department would assist in getting clearances for Council members who needed them for participation. He stressed that this study needed to move as quickly as possible once adopted and that the Department would assist in the process. Deputy Assistant Secretary Sue Armstrong mentioned to the Council that the Department of Justice, Bureau of Justice Assistance (BJA) currently has a program in place that deals with information sharing and involved the private sector, which might warrant examination.

### VIII. Approval of Proposed Study:<br/>NIAC Information Sharing StudyNIAC Chairman Erle A. Nye,<br/>Chairman, Emeritus, TXU Corp.

Chairman Nye put forward the motion to approve the proposed Information Sharing Study as the next project for the NIAC, which was approved by Mr. Berkeley and Mr. Kepler. With no comments or questions offered, Chairman Nye asked for a vote on the motion that was before the Council, and it was approved unanimously.

IX.	WORKING GROUP DELIBERATION: Optimization of Resources For Mitigating Infrastructure	Margaret E. Grayson, NIAC Member President, Grayson & Associates
	Disruptions	<i>Thomas E. Noonan, NIAC Member</i> Former General Manager, IBM Internet Security Systems

Prior to introducing the *Optimization of Resources for Mitigating Infrastructure Disruptions* presentation, Chairman Nye recognized Mr. Brian Kamoie from the White House who arrived at the meeting, and asked if he had any opening comments to make. Mr. Kamoie thanked Chairman Nye and stated that he did not want to interrupt the meeting other than to note that the two NIAC studies being adopted by the Council today would provide great value and insight into upcoming policy deliberation by the Administration. Mr. Kamoie thanked Chairman Nye and stated that he looked forward to participating in the rest of the meeting. After Mr. Kamoie's remarks, Chairman Nye introduced Ms. Grayson and Mr. Noonan who would be presenting the Study's findings to the Council.

Ms. Grayson thanked Chairman Nye, Vice-Chairman Berkeley, and the NIAC members and stated that Mr. Noonan would begin the presentation and that she would report out

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the findings and recommendations. Before providing an overview of the presentation, Mr. Noonan thanked all the individuals who supported the study, in particular the individuals that represented the State, Local, Tribal, and the Territorial Government Coordinating Council (SLTTGCC). He noted that their contributions built upon previous work by the NIAC and extends the understanding of community resilience, a topic of vital interest to the current Administration.

Noting that the challenges facing homeland security are both complex and highly variable, Mr. Noonan mentioned that the Administration had established a new framework for the Department, one in which resilience is one of three core concepts. This particular study clearly ties infrastructure resilience to the broad base resilience of communities and their constituents and builds upon the 2009 NIAC study titled, *Critical Infrastructure Resilience*, which led the way in establishing resilience as a fundamental concept for sustaining and enhancing infrastructure capability. The *Critical Infrastructure Resilience* study also defined the core elements of infrastructure resilience and how they contribute to national security and quality of life. He noted that in the 2009 study, community resilience was intentionally excluded based upon the importance of first establishing the core elements that frame infrastructure resilience. Mr. Noonan stated that the *Optimization of Resources for Mitigating Infrastructure Disruptions* Study extends on this earlier work and examines the important intersection of community and infrastructure resilience.

Focusing on the homeland security enterprise construct, Mr. Noonan noted that it is clear that optimization of resources cannot be achieved without considering the combined capabilities of infrastructure owners and operators and the communities where they serve and operate. He again mentioned the 2009 NIAC study, which articulated a definition of resilience as it applies to infrastructure and the companion 2010 NIAC *Framework for Establishing Critical Infrastructure Resilience Goals* Study, which builds upon earlier work to establish a planning framework for resilience goals at the sector level. The improved understanding of the relationship between community and infrastructure resilience will allow for additional contributions and improvements of both. He noted that the synergy between the two is critical, and in a resilient community life continues uninterrupted and businesses remain open and operational.

Mr. Noonan next examined how the *Optimization of Resources for Mitigating Infrastructure Disruptions* Study was framed to achieve results. A clear linkage between community and infrastructure resilience was identified; a community cannot recover without vital sector services to include power, water, food, medical care, and funds. He noted that synchronizing the relationship between infrastructure and community resilience proved challenging, not just for owners and operators, but in the differentiating characteristics of communities and regions large and small. The study was framed around two leading issues to include, what are the potential enablers of infrastructure resilience that can support and strengthen community resilience, and are there significant weaknesses in infrastructure resilience that there were many resilience-related aspects identified

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to include mutual aid agreements and the pre-positioning of critical spare assets prior to an incident. In regards to the second question, he noted that there has to be acceptance or there will be weaknesses in critical infrastructure resilience, which has a direct affect on the community. However, there can be improvement with lessons learned from past and future incidents, which can be digested and applied for betterment. Within the identified study framework, the study examined three aspects: functions, what works and what does not work and why; resources, what are the resource management aspects of functional performance; and government policy and programs, including what steps the Government might take to encourage or further the contribution of infrastructure resilience to community resilience.

The approach for the study included four phases: eliciting community perspectives and insights; capturing owner and operator perspectives; comparing community with owner and operator perspectives; and identifying and clarifying key findings and recommendations. He mentioned that the most critical phase was arguably the first one eliciting the perspectives of the community served by infrastructure. For this phase, the study was fortunate to engage a robust group of Subject Matter Experts in the field which included the SLTTGCC and the Regional Consortium Coordinating Council (RCCC). These individuals brought information and insight into the subject of what it means for a community to be resilient, and Mr. Noonan stated that Ms. Grayson would recognize these participants at the end of the presentation. The second phase of the study approach, owner and operator engagements, provided insight from the private sector, which operates within the communities they serve. Mr. Noonan noted that responses were similar to those of the first phase and helped to build a joint picture of infrastructure and community resilience. In comparing and contrasting these perspectives, the group was able to clarify its understanding of both the issues involved in recognizing the synergy between infrastructure and community resilience and to build a path to a potential solution. From the first three phases of the study approach, the group arrived at the final phase, key findings and recommendations. He stated that these findings and recommendations included an assessment of gaps and seams in resource availability, as well as coordination and potential improvements in identifying, sharing, and developing efficiencies in resources use.

In completing his presentation, Mr. Noonan identified four general observations. The first is that preparedness and leadership, both in the public and private sector, is vitally important to community resilience. It is imperative that leaders be involved in coordinated planning at the community level to ensure that the community is as resilient as possible. The second observation is that personal responsibility plays a key role in resilience, and efforts such as FEMA's Citizen Corps Program are critical for achieving resilience at all levels: individual, community, regional, and national. Mr. Noonan applauded efforts that promote community resilience which offer practical suggestions on how individuals and communities can enhance their readiness. The third observation identified is that infrastructure sectors contribute not simply as service providers, but as employers, individuals, family members, volunteers, and neighbors in the community. Infrastructure is found within the community, and therefore, is part of the community.

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The final observation covered by Mr. Noonan is that many critical sectors and governments have long-standing, established, and well-proven programs and processes for resource sharing during disruptive events. Two specific examples introduced include mutual aid agreements and pre-positioning of material prior to an incident. Mr. Noonan thanked the Council members and deferred to Ms. Grayson for an examination of the study findings and recommendations.

Ms. Grayson thanked Mr. Noonan and the Council members and began her part of the presentation by identifying the nine findings of the study. She introduced the first study finding, which is that the resilience component of the National Infrastructure Protection Plan is not well understood by the public and private sectors and has no widely shared view of what resilience activities are and how they contribute to community resilience. She stated that improved communication of a resilience planning framework down to the community level would help both infrastructure and the communities they serve and would jointly identify and manage where and how resources should be leveraged. At the community level, interdependencies among infrastructure and across communities are often not well defined or understood. For the second finding, she stated that while there is awareness that interdependencies are critical and need to be addressed, the tools and knowledge to support such efforts are generally not available to stakeholders.

The next finding addressed by Ms. Grayson was that education of stakeholders is critical, and should be enhanced as a shared understanding of resilience that is fundamental to progress. Communication within and across communities will always be a challenge and a shared understanding is critical to building a future where mutual resilience can be assured. The fourth finding introduced stated that many infrastructure systems are designed to be resilient in order to satisfy customer demands for service availability but that cascading events might trigger unforeseen complications from interdependencies. The fifth finding is that development of structured relationships and processes between critical infrastructure and the communities they serve are necessary but not sufficient for success. Regarding this finding, she noted that today many critical infrastructures define key relationships and processes such as points of contact, communication protocols, and expectations for response and availability of infrastructure resources.

The sixth finding addressed by Ms. Grayson was that testing and exercise of plans, processes, and individuals are critical and necessary for success. Ms. Grayson noted that critical infrastructures in the community should have systems in place that are tested and proven to deal with incidents and that they have the ability to adapt to new conditions as they present themselves. The seventh finding identified by the group is that existing information sharing mechanisms can be effective models for improving communications and understanding across both sectors and community information sharing with broader regional and national information content. Information sharing is critically important across community areas and building on these models can improve the integration of community level information with that of infrastructure and their service providers.

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The final two findings introduced by Ms. Grayson involved mutual aid agreements and the legal and regulatory environment in which they operate. Mutual aid agreements and other existing infrastructure sector and government mechanisms for resource management can be effective tools to aid community resilience. Between sectors and communities, these agreements can enhance the ability to allocate resources to best affect infrastructure service delivery and community recovery. In regards to the legal and regulatory environment, Ms. Grayson noted that these issues can vary significantly across different service areas and may hamper the ability of service providers to bring additional resources during service disruptions. Whenever disruptions involve multiple jurisdictions, the potential exists for constraints on the ability to move quickly and apply the resources needed to restore services. Additionally, the lack of commonly and broadly accepted agreements across jurisdictions, to include credentialing, hinders the ability of service providers to deliver the necessary resources to restore service and allow for community recovery.

Building on the nine findings, the group established six recommendations for policy and program action. Ms. Grayson stated that the first five recommendations are actions directed at DHS, while the sixth primarily involves action by the NIAC. The first recommendation is to improve the understanding of resilient activities, with a key element being the establishment of a widely shared, well-understood framework to enable infrastructure and community partners to identify, plan, implement, and assess resilient activities. Encouragement to develop regional infrastructure protection plans and catastrophic planning teams is an additional component of this recommendation. Regarding the second recommendation, Ms. Grayson noted that the Department should enhance regional and community-level information exchange through the increased availability of data information tools and techniques and improve representation and contributions by owners and operators in fusion centers with enhanced participation in national and regional exercises.

Expanding the provision of scalable, low-cost tools and techniques was the third recommendation introduced by Ms. Grayson. She stated that the Department should champion the development and transfer of infrastructure based tools for application, such as dependency analysis and cyber-security assessments. With respect to this recommendation, she noted that the Regional Resiliency Assessment Program (RRAP) should be expanded to enhance resilience at the local, community, and regional levels. The fourth recommendation she mentioned is to enhance the transfer of expertise and lessons learned from national-level planning and analysis to regional and community-level systems. She explained that there is a wide range of valuable expertise within the Federal, State, and local government that can be made available in an appropriate format to foster community understanding and planning for resilience. An additional component to this recommendation would be to expand non-traditional mechanisms, such as webinars, to deliver federally developed training at the community level.

The final two recommendations of the Optimization of Resources for Mitigating Infrastructure Disruptions study focus on the development of a national playbook to

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identify the impact on infrastructure services from threat-level changes in the National Security Advisory System and a follow-up report to the July 2009 NIAC study to determine the implementation status of recommendations for removing crossjurisdictional impediments to moving and using assets during emergencies. A national playbook would reduce the unintended and negative consequences on service delivery by improving the public and private sector understanding of actions and responses required for an incident before, during, and after an event and a follow-up study of the 2009 NIAC report titled *Framework for Dealing with Disasters and Related Interdependencies* would identify key gaps and implement standard approaches as well as improve collaboration to develop model State legislation to ease restoration efforts on a community following an emergency or a disaster.

Ms. Grayson closed by thanking all individuals who participated in the study and stated that the group was fortunate to have a consistent Study Group that provided feedback, guidance, and insight into this endeavor. Ms. Cherri Black and Mr. Ulie Seal who are the chair and co-chair of the SLTTGCC were recognized and thanked for providing critical guidance as the group moved to a better understanding of community resilience and the RCCC and other regional groups were acknowledged for providing productive feedback to the study. Ms. Grayson then closed her comments and the presentation and asked if there were any questions for the Council.

Chairman Nye thanked Ms. Grayson and Mr. Noonan for their presentation and hard work on such an important study and recognized Mr. Kamoie from the White House for comments. Mr. Kamoie thanked Chairman Nye and the presenters, and mentioned the President's *National Security Strategy*, describing it as a blue print for national security and stating that it would be made available to the Council.

He mentioned to both Ms. Grayson and Mr. Noonan that a number of the findings outlined in their report are found within the White House document and were reflected in that vision. Discussing the importance of resilience, Mr. Kamoie mentioned that the White House deliberately chose not to bring together individuals to come up with an agreed upon definition but decided to address this issue with specific principals in mind, which are all found within the NIAC report, to include withstanding a disruption, and adapting and recovering from an incident. Additional areas discussed in the *National Security Strategy*, are the emphasis on individual and community resilience, specifically examining the H1N1 pandemic that occurred last year, and how distribution of the right information to communities provided greater resilience. Ms. Grayson thanked Mr. Kamoie for his comments and he responded by stating that an educational campaign on resilience has begun and that the Administration is engaged on this critical issue.

X. Approval of Study Report: Optimization of Resources for Mitigating Infrastructure Disruptions NIAC Chairman *Erle A. Nye*, Chairman, Emeritus, TXU Corp.

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Upon determination there were no further questions for the presenters; Chairman Nye requested a motion for approving the *Optimization of Resources for Mitigating Infrastructure Disruptions* report and Ms. Grayson offered a motion to approve that was seconded by Mr. Heasley. Mr. Kepler, who asked to provide comment, stated that the size of each community, their location, and their expertise are very broad and that to gain an understanding on how the public and private sector work in these environments is critical. Ms. Grayson thanked Mr. Kepler for his comments and recognized that the study showed that not all communities are universal; there are some that are small and some that are extremely large, which results in different requirements for each and not a one size fits all approach.

Chairman Nye asked for a vote on the adoption of the report, which was passed unanimously. Upon approval, he thanked all individuals who participated on the two adopted studies to include the Government, private sector, and the report support staff and he recognized the considerable amount of time that goes into these reports.

#### XI. Public Comment

*NIAC Chairman Erle A. Nye,* Chairman Emeritus, TXU Corp.

Chairman Nye introduced the public comment section of the meeting and stated that this process had recently become a formalized protocol by DHS. He deferred to Ms. Wong to guide this part of the agenda. She stated that public comments were allowed for this meeting, but that these had to be relevant to either the listed agenda for the meeting or to the work of the Council. Public comments would be limited to three minutes per individual and would proceed in the order of registration. Written comments were also allowable and would have to be submitted to the Council by the requirements listed in the Federal Register notice for this meeting. All written comments will be posted without alteration at <u>www.regulations.gov</u> and will include any personal information that is provided. Chairman Nye then deferred to the list of requested speakers and called upon Mr. Jamie Conrad to address the Council.

Mr. Conrad thanked Chairman Nye, the members of the Council, and the Government officials in attendance for the opportunity to speak on behalf of a coalition that represents the Nation's solid waste risk management industry, both in the public and private sector. He stated that last year, during a review of pandemic planning, it was determined that there was Federal guidance on the allocation of resources, in the event of a shortage, to critical infrastructure sectors such as Health Care and Public Health. But his review determined that solid waste management was not contained in this Federal guidance. The identified guidance on allocating and targeting pandemic vaccine was jointly issued by the Department of Health and Human Services and DHS in July 2008 in response to a report issued by the Council in January 2007. Mr. Conrad stated that for individuals who recognize and understand the definition of critical infrastructure and key resources, the omission of solid waste from the document is understandable because both documents based their definition upon the list contained in the Homeland Security Presidential

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Directive 7 (HSPD-7), which defines the term from the perspective of a terrorist attack. He noted that terrorists are not the only threat to critical infrastructure, and that officials have seen from work stoppages how quickly waste can accumulate when it is not collected, particularly in large urban areas where the majority of the population is located. In a pandemic scenario, employee absences can quickly result in a public health crisis, and the presence of large quantities of infectious waste during such an incident would geometrically increase these risks.

Mr. Conrad stated that, during the last year, he and members of the coalition have met with relevant public officials to include the Centers for Disease Control and Prevention (CDC), the National Vaccine Program Office, the DHS Office of Health Affairs, and the DHS IP. He noted that all of these officials have been generous with their time and have agreed with the problem, but that they have not been able to commit to correcting this omission in the absence of clear guidance from their hierarchy. Mr. Conrad stated that was why he was before the Council today, to ask the NIAC to convey to these officials this concern and that concrete action should be taken in the near term to add solid waste management to current policy for pandemic flu vaccine priority.

Mr. Conrad stated that he did not believe this request would require a revision of the extensive process that went into developing these documents. He recognized this request raises the issue of what the Council could take on regarding whether solid waste management is identified as critical and what sector or sectors it fits into. He mentioned that the coalition has given this thought and would be happy to discuss the issue further, and he thanked the Council for their time.

Chairman Nye thanked Mr. Conrad for his remarks to the Council and stated that the NIAC is aware of the situation. He then moved to adjournment and closing remarks for the meeting.

XII.	CLOSING COMMENTS AND	NIAC Chairman Erle A. Nye,
	ADJOURNMENT	Chairman Emeritus, TXU Corp.

Chairman Nye recognized Deputy Assistant Secretary Sue Armstrong for closing comments. Ms. Armstrong thanked Chairman Nye for the opportunity to speak before the Council and stated that the NIAC has continued its track record of thoughtful and substantive recommendations, which the Department can act upon and implement into its various policies and programs. She noted that in the meeting today the benefit of the public and private sector partnership and owner and operator participation was reinforced by the NIAC. From the two reports presented, Ms. Armstrong said that these reiterated a number of key objectives to include the need for clear roles and responsibilities between the public and private sector and a need to continue robust and informed dialogue on vulnerabilities. Ms. Armstrong stated that she supported the recommendation of higher level CEO involvement and recognized this it is a critical step given that the public and private sectors are both facing similar threats and challenges from these adversaries.

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Ms. Armstrong applauded the inclusion of the SLTTGCC and RCCC in the NIAC reports and noted that their involvement will help to expand the understanding of the NIPP and the concept of resilience, as well as remind partners that homeland security does not just exist inside of Washington, DC. She stated that she looked forward to the upcoming NIAC Information Sharing Study, expressing that it is both timely and critical as the Department needs to hear that information it shares is actionable by the private sector, and that if this is not the case, it needs to be addressed and corrected. Ms. Armstrong concluded her remarks by thanking the Chairman and the Council for allowing her to participate in the meeting.

Chairman Nye thanked Assistant Secretary Armstrong for her comments and continued partnership. Discussing the next sectors to be covered in the *Framework for Establishing* Critical Infrastructure Resilience Goals Study, he mentioned that phase two was scheduled to be the Oil and Natural Gas Sector, with the Transportation Sector being phase three, but that these would have to be deferred until the Council has Subject Matter Experts from these sectors. While these are important areas that will be examined, the right leadership is needed for an effective product.

Chairman Nye introduced the schedule of Council meetings for 2011. The meeting dates announced were: January 18, 2011, April 19, 2011, July 12, 2011, and October 11, 2011. These meetings will occur at 1:30 pm at a location in Washington, DC, and he asked that members make note of the dates to help ensure robust attendance and participation. Chairman Nye closed by thanking all the Council members and individuals for their hard work and dedication. He was pleased to report that he continues to receive positive feedback from the Department and their promise of assisting in locating additional members. Upon his concluding remarks, and with no other comments from NIAC members, Chairman Nye again thanked all in attendance and adjourned the meeting.

I hereby certify the foregoing minutes accurately represent the discussion and events that transpired at the meeting held on the date first noted above.

By: \_\_\_\_\_

Date: \_\_\_\_\_

Erle A. Nye, Chairman, NIAC

# National Infrastructure Advisory Council (NIAC)

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

#### October 19, 2010

Al Berkeley Chairman, Pipeline Trading Systems Mike Wallace Vice Chairman, Constellation Energy Chairman, UniStar Nuclear Energy Chairman, Constellation Energy Nuclear Group

### Overview

- Objectives
- Study Approach and Scope
- NIAC and Study Group Members
- Resilience Construct
- Basis for Setting Sector-Specific Goals
- Key Messages
- Findings
- Recommendations

### Objectives

- Describe and clarify sector-specific resilience strategies and practices, and how they can serve as the basis for setting sector-specific resilience goals.
  - 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 government policies and practices that will enhance resilience in CIKR sectors.

# Study Approach and Scope

- Use sector case studies to develop and refine the resilience goals framework.
- Case Study Process:
  - 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.
- Emphasis placed on the electricity sector.
  - Nuclear sector completed Comprehensive Reviews.
- Avoided formulating goals for the sectors.

### NIAC and Study Group Members

- Mike Wallace, Vice Chairman, Constellation Energy; Chairman, Unistar Nuclear Energy; Chairman, Constellation Energy Nuclear Group; Study Group Chair, NIAC Member
- Al Berkeley, Chairman, Pipeline Trading Systems;
   Study Group Chair, NIAC Vice-Chair
- 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, former 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
- Robin Holliday, Johns Hopkins University Applied Physics Laboratory, Joint Operations and Analysis Program Area Manager
- **Paul Koonce,** CEO, Dominion Virginia Power
- Robin Manning, Executive Vice President Power System Operations, Tennessee Valley Authority (TVA)
- Bill Muston, Manager Research & Development, Oncor Electric Delivery Company
- Dan Sadler, Program Manager Business Continuity, Constellation Energy
- Debra van Opstal, Senior Fellow, Resilience Policy, Center for National Policy

### CEO Roundtable and Contributors

- Don Benjamin, Executive Director, North American Transmission Forum
- Stephen Flynn, President, Center for National Policy
- Al Fohrer, CEO, Southern California Edison
- Gary Fulks, General Manager, Sho-Me Power Electric Cooperative
- Bill Gausman, Senior Vice President Asset Management, Pepco
- Keith Hardy, Vice President Distribution, Florida Power and Light Company
- Mary Heger, Vice President Information Technology, Ameren
- Shane Hilton, General Manager Retail Operations, Cleco Power, LLC
- John Houston, Vice President Transmission Substation Operations, CenterPoint Energy
- John McAvoy, Senior Vice President, ConEdison

- Paul Murphy, President and CEO, Independent Electricity System Operator
- John Procario, Chairman, President, and CEO, American Transmission Company
- Scott Prochazka, Senior Vice President Electric Operations, CenterPoint Energy
- Ron Ragains, Vice President Electric Transmission, Northern Indiana Public Service Company
- Joe Rigby, CEO, Pepco Holding Company
- Jack W. Roe, Director, Security Integration and Coordination, Nuclear Energy Institute
- Jim Turner, Group Executive; President and CEO – U.S. Franchised Electric and Gas, Duke Energy
- Mark Weatherford, Vice President and Chief Security Officer, North American Electric Reliability Corporation

### Resilience Construct

Robustness	<ul> <li>The ability to absorb shocks and keep operating</li> </ul>
Resourcefulness	<ul> <li>Managing a disaster as it unfolds</li> </ul>
Rapid Recovery	<ul> <li>Getting back to normal as quickly as possible</li> </ul>
Adaptability	<ul> <li>Absorbing new lessons from a catastrophe</li> </ul>

\*Based on Stephen Flynn and NIAC definitions

### Electricity Case Study Inputs



# Basis for Setting Sector-Specific Goals



- I. Baseline of sector resilience practices established using the resilience construct; prospective goals developed.
- 2. High-impact scenario used to reveal gaps and seams in sector resilience.
- 3. Public/private sector responsibilities and policies examined to address gaps.
- 4. Sector goals developed and refined.

### Key Messages

- The electricity and nuclear sectors are extremely resilient, but emerging risks are proving challenging.
- Infrastructure resilience is a shared responsibility that requires the distinct expertise, capabilities, and combined resources of the private and public sectors.
- Sector owners and operators are best equipped to design, build, operate, and maintain their infrastructures, aided by government information sharing, a reinforcing regulatory environment, and key resources during major disasters.
- The public-private partnership is the most effective strategy for achieving infrastructure resilience, but senior executive leadership and participation should increase.

Findings: Resilience in the Electricity and Nuclear Sectors

- 1. The U.S. electricity and nuclear sectors are highly reliable and resilient. However, the scope and depth of the resilience practices used routinely by these sectors are not well understood or communicated.
- 2. Electricity and nuclear sector practices suggest an implied set of sector goals based on the framework for resilience:
  - Withstand a shock from any hazard with no loss of critical functions.
  - Prevent a power disruption from cascading into interconnected systems.
  - Minimize the duration and magnitude of power outages through rapid recovery strategies.
  - Mitigate future risks by incorporating lessons from past disruptions, simulations and exercises, and sound risk assessment processes.

### Findings: The Emerging Risk Landscape

- 3. The risk landscape is changing in ways that may affect both the reliability and resilience of the electric power sector.
- Increased cyber monitoring and control of the electric grid has reshaped risks in ways that are not fully understood.
- 5. Cross-sector risks faced by the electricity sector include fuel supply, telecommunications and IT, transportation, and water.
Findings: Challenges and Opportunities to Increasing Resilience

- 6. The limited availability of extra-high-voltage transformers in crisis situations presents a potential supply chain vulnerability.
- 7. The ability of utilities to achieve greater levels of resilience is constrained by market, regulatory, and technical factors.
- Government information sharing on risks to the electricity sector has improved, but more can be done.

Findings: Challenges and Opportunities to Increasing Resilience

9. Restoration planning, including black start capabilities, provides an effective measure of recovery but deserves more focused attention.
10. Boards of directors at power companies receive a high volume of risk information but it remains

difficult to communicate and quantify operational risks in a rapidly changing risk environment.

- The White House should initiate an executive-level dialogue with electricity and nuclear sector CEOs on the respective roles and responsibilities of the private and public sector in addressing high-impact infrastructure risks and potential threats, using an established private sector forum for highlevel, trusted discussions between industry executives and government leaders.
- The nuclear and electricity industries should each develop an emergency response plan that outlines a coordinated industry-wide response and recovery framework for a major nationwide disaster.

- 3. DHS and other federal agencies should improve information sharing with the private sector by providing focused, actionable, open-source information on infrastructure threats and vulnerabilities.
- 4. All critical infrastructure sectors should consider adopting the industry self-governance model exemplified by the Institute of Nuclear Power Operations (INPO) and the North American Transmission Forum (NATF) to enable the private sector to collaborate on industry-wide resilience and security issues outside the regulatory compliance process.
- Promote the use of the NIAC-developed framework for setting resilience goals in the CIKR sectors and providing a common way to organize resilience strategies within federal and state governments and CIKR sectors.

- 6. DHS should support modeling and analysis studies of the cross-sector economic impacts of CIKR failures using tools such as input-output analysis.
- 7. Federal and state agencies should allow cost recovery for utility investments that increase infrastructure resilience.
- 8. Electricity industry and government leaders should pursue options to mitigate supply chain vulnerabilities associated with extra-high-voltage transformers.
- 9. The federal government should work with owners and operators to clarify agency roles and responsibilities for cyber security in the electricity sector, including those for cyber emergencies and highly sophisticated threats.



# Questions?

# National Infrastructure Advisory Council (NIAC)

### Optimization of Resources for Mitigating Infrastructure Disruptions Working Group

#### October 19, 2010

Tom Noonan Former General Manager, IBM Internet Security Systems Margaret Grayson Vice President, Management & Compliance, Tremco Roofing and Building Maintenance, RPM Building Solutions Group

### Overview

- Study Context: The DHS Mission
- Key Aspect: Enhancing the Synergy Between Infrastructure Resilience and Community Resilience
- Study Approach
- General Observations
- Findings
- Recommendations
- Study Leadership

## Study 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 3 and functions." Key Aspect: Enhancing the Synergy Between Infrastructure Resilience 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.
- 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.

#### Sectors 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.

# Framing the Study

#### 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?

#### Supporting Questions

- Functions; e.g., What are current practices in aligning infrastructure resilience with community resilience?
- **Resources**, e.g., What are opportunities to enhance collaborative resource planning and management?
- Government Policy and Programs, e.g., What steps might the government take to encourage the contribution of infrastructure resilience to community resilience?

# Study Approach

#### Four Phases

- Eliciting Community Perspectives and Insights: Developing an information baseline that crosscuts infrastructure sectors through discussions with the SLTTGCC, RCCC, other regionallyfocused organizations and experts.
- Capturing Owner/Operator Perspectives: Interviews and discussions with SMEs from key sectors to share results of first phase and build joint picture of infrastructure/community resilience.
- **Comparing Community and Owner/Operator Perspectives:** Engagements to clarify and expand on identified issues and improve joint understanding of problems *and* potential solutions.
- Identifying and Clarifying Key Findings and Recommendations: Assessment of gaps in resource availability and coordination and potential improvements in identifying, sharing, and developing efficiencies in resources use.

### General Observations

- Preparedness and leadership, public and private alike, is vitally important to community resilience.
- Personal responsibility plays a key role in resilience, and efforts such as the FEMA Citizen Corps are critical to resilience at all levels – individual, community, regional, and national.
- Infrastructure sectors contribute not simply as service providers, but as employers, individuals, family members, volunteers, and neighbors.
- Many critical sectors and governments have longestablished, well-proven programs and processes for resource sharing during disruptive events.

# Findings

- The resilience component of the NIPP is not well understood by public and private partners alike – there is no widely shared view of what resilience activities are and how they contribute to community resilience.
- At the community level, interdependencies among infrastructure and across communities – are often not well defined or understood.
- Education of stakeholders is critical and should be enhanced - a shared understanding of resilience is fundamental to progress.

# Findings (continued)

- In general, many infrastructure systems are designed to be resilient in order to satisfy customer demands for service availability; none-the-less, cascading events may trigger unforeseen complications from interdependencies.
- Development of structured relationships and processes between critical infrastructure and the communities they serve is necessary, but not sufficient, for success.
- Testing and exercising of these relationships and processes is *necessary* for success.

# Findings (continued)

- Existing information sharing mechanisms can be effective models for improving communications and understanding across sectors and communities.
- Mutual-aid agreements and other existing infrastructure sector and government mechanisms for resource management can be effective tools to aid community resilience.
- The legal and regulatory environment can vary significantly across different service areas, and may hamper the ability of service providers to bring to bear additional resources during times of service disruption.

- 1. Improve the understanding of resilient activities and how they are implemented.
  - Develop a common framework to enable infrastructure and community partners to identify, plan, implement, and assess resilient activities.
  - Encourage the development of regional infrastructure protection plans and catastrophe planning teams.
- 2. Enhance regional and community-level information exchange through the increased availability of data, information, tools, and techniques.
  - Improve the representation and contributions of infrastructure owners/operators in Fusion Centers.
  - Enhance owner/operator participation in national and regional exercises.

# Recommendations (continued)

- 3. Expand the provision of scalable, low-cost tools and techniques.
  - Champion the development and transfer of infrastructurefocused tools such as dependency analysis, and cybersecurity assessment.
  - Expand the Regional Resiliency Assessment Program to enhance local, community, and regional resilience alike.
- 4. Enhance the transfer of expertise and lessons learned from national-level planning and analysis to regional and community-level systems.
  - Sponsor regional-level exercises devoted to the distribution of goods and services.
  - Expand non-traditional mechanisms such as webinars to deliver federally-developed training.

## Recommendations (continued)

5. Develop a national "playbook" to identify the impact on infrastructure services from threat-level changes in the National Security Advisory System.

- Reduce unintended negative consequences on service delivery by improving the public-private understanding of actions and responses.
- Develop protocols that can accurately communicate these impacts to the public.

6. Remove cross-jurisdictional impediments to moving and using outside assets during emergencies.

- Identify key bottlenecks and implement standard approaches.
- Collaborate to develop model state legislation to ease restoration efforts.

# Study Leadership

#### NIAC Working Group and Sponsors

- Peg Grayson, Vice President, Management & Compliance, Tremco Roofing and Building Maintenance, RPM Building Solutions Group
- **Tom Noonan**, Former General Manager, IBM Internet Security Systems
- Study Group
  - 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, Dow Chemical
  - James B. Nicholson, President and Chief Executive Officer, PVS Chemicals, Inc.
  - Ulie Seal, SLTTGCC Chair



# Questions?

# National Infrastructure Advisory Council (NIAC)

#### **Proposed Information Sharing Study**

#### October 19, 2010

Al Berkeley Chairman, Pipeline Trading Systems LLC

Philip G. Heasley President and Chief Executive Officer, ACI Worldwide James B. Nicholson President and CEO, PVS Chemicals, Inc.

### Overview

- Background
- Framing the Study: Primary Aspects
- Approach
- Potential Study Sources
- Study Considerations
- Recommendation and Next Steps
- Working Group Co-Chairs
- Questions?

# Background

- At the April 13, 2010 NIAC Quarterly Business Meeting, the Department of Homeland Security (DHS) requested that the Council conduct an updated study on intelligence information sharing.
- DHS requested that this proposed study include:
  - An examination of the previous findings and recommendations from the 2006 NIAC Report on Public-Private Sector Intelligence Coordination.
  - An in-depth review of new policies and programs including fusion centers.
- In September 2010, a NIAC scoping group convened to frame an approach to this request. 3

# Framing the Study: Primary Aspects

1. Update of intelligence information sharing, addressing issues such as:

- The timeliness and relevance of information and intelligence shared between the public and private sector.
- Jurisdictional and legal issues that may hinder or appear to hinder effective information sharing.
- 2. The role of fusion centers, addressing:
  - Private sector participation and interaction.
  - Information sharing challenges, gaps, and best practices.
- 3. Enhancing owner and operator contributions to counterintelligence, addressing issues such as:
  - The private sector role in counterintelligence.
  - Challenges and potential solutions to improving contributions by owners and operators.

# Approach

- The perspectives of leading executives and subject matter experts (SMEs) in business and government will provide the primary sources of information.
- Additional information will be obtained from a comprehensive examination of published studies and testimonies.
- Senior executive and SME engagements, combined with published research, will provide the basis for study findings, recommendations, and approaches for implementation.

### Potential Study Sources

- Potential study participants include:
  - Private sector critical infrastructure owners and operators.
  - Public sector intelligence and information sharing individuals, including fusion center representatives.
  - Congressional representatives and their staff members.
  - 9/11 Commission representatives.
  - NIAC members.

## Study Considerations

- The study will require one year or longer due to the complexity of content and associated engagements.
- Outreach to the intelligence and fusion center communities is a critical step.
- Classification considerations may constrain pace and scope of discussions.
- Identification of Study Group members that balance the perspectives of participants from several diverse operating cultures is crucial.

### Recommendation and Next Steps

- The proposed NIAC Information Sharing Study should be adopted by the Council.
- Next steps if adopted:
  - Select Working Group: NIAC members with knowledge of intelligence information sharing between the public and private sector.
  - Identify initial Study Group members: Decision makers and practitioners from the field of information sharing.
  - Identify specific sectors for study focus.
  - Establish initial work plan and schedule.

## Working Group Co-Chairs

- Alfred R. Berkeley III
  - Chairman, Pipeline Trading Systems LLC (former Vice-Chairman, NASDAQ)
- Philip G. Heasley
  - President and Chief Executive Officer, ACI Worldwide
- James B. Nicholson
  - President and Chief Executive Officer, PVS Chemicals, Inc.



# Questions?