NATIONAL INFRASTRUCTURE ADVISORY COUNCIL

BUSINESS MEETING AGENDA

National Press Club
Ballroom
529 14th Street, NW
Washington, DC 20045
April 13, 2010
1:30 PM – 4:30 PM EDT

I.	**OPENING OF MEETING**	*Nancy J. Wong*, Designated Federal Officer (DFO), NIAC, Department of Homeland Security (DHS)
II.	**ROLL CALL OF MEMBERS**	*Nancy J. Wong*, DFO, NIAC, DHS
III.	**OPENING REMARKS AND INTRODUCTIONS**	NIAC Chairman *Erle A. Nye*, Chairman Emeritus, TXU Corp. *Rand Beers*, Under Secretary for the National Protection and Programs Directorate, DHS *(invited)*
	PARTICIPATING BUT NOT EXPECTED TO MAKE REMARKS:	*Philip Reitinger*, Deputy Under Secretary for the National Protection and Programs Directorate, DHS *Todd Keil*, Assistant Secretary for Office of Infrastructure Protection, DHS *Sue Armstrong*, Acting Deputy Assistant Secretary for Office of Infrastructure Protection, DHS
IV.	**APPROVAL OF JANUARY 2010 MINUTES**	NIAC Chairman *Erle A. Nye*, Chairman Emeritus, TXU Corp.
V.	**WORKING GROUP STATUS: *A FRAMEWORK FOR ESTABLISHING CRITICAL INFRASTRUCTURE RESILIENCE GOALS***	*Alfred R. Berkeley*, Chairman and Chief Executive Officer, Pipeline Trading Systems, LLC (former Vice Chairman, The NASDAQ Stock Market, Inc.), NIAC Member, Working Group Co-Chair, and *Michael Wallace*, Vice-

		Chairman, Constellation Energy, Chairman, UniStar Nuclear Energy, NIAC Member, Working Group Co-Chair
VI.	**WORKING GROUP STATUS: *OPTIMIZATION OF RESOURCES FOR MITIGATING INFRASTRUCTURE DISRUPTIONS***	*Margaret E. Grayson*, Principal, Essential$_2$Management, NIAC Member, Working Group Co-Chair; and *Thomas E. Noonan*, Former General Manager, IBM Internet Security Systems, NIAC Member, Working Group Co-Chair
VII.	**NEW BUSINESS**	NIAC Chairman *Erle A. Nye*, Vice Chairman *Alfred R. Berkeley III*, NIAC Members
VIII.	**CLOSING REMARKS**	*Todd Keil*, Assistant Secretary for Infrastructure Protection, DHS
IX.	**ADJOURNMENT**	NIAC Chairman *Erle A. Nye*, Presiding

MINUTES

NIAC MEMBERS PRESENT IN WASHINGTON:

Mr. Erle A. Nye; Ms. Margaret Grayson

NIAC MEMBERS ATTENDING VIA CONFERENCE CALL:

Mr. Alfred R. Berkeley III; Mr. Edmund G. Archuleta; Lt. Gen. (ret.) Albert J. Edmonds; Mr. Phillip Heasley; Mr. Jim Nicholson; Mr. Thomas E. Noonan; Hon. Tim Pawlenty; Mr. James A. Reid.

MEMBERS ABSENT:

Mr. David Bronczek; Mr. Wesley Bush; Chief (ret) Gilbert G. Gallegos; Mr. D.M. Houston; Commissioner Raymond W. Kelly; Mr. David E. Kepler; Ms. Martha H. Marsh; Mr. Gregory Peters; Mr. Bruce A. Rohde; Dr. Linwood H. Rose; Mr. Matthew Rose; Mr. Michael Wallace; Mr. Greg Wells; Ms. Martha Wyrsch

SUBSTANTIVE POINTS OF CONTACT PRESENT IN WASHINGTON:

Mr. Robert Nolan (for Mr. Dennis Houston); Mr. Ed Goetz (for Mr. Michael Wallace); Mr. Bill Muston (for Chairman Nye); Ms. Brooke Lundquist-Beebe (for Mr. David Kepler); Mr. Bill Fisher (for Mr. James Nicholson)

SUBSTANTIVE POINTS OF CONTACT ATTENDING VIA CONFERENCE CALL:

Ms. Annie Paruccini (for Hon. Tim Pawlenty); Mr. Joseph Long (for Mr. Gregory Peters); Mr. Jose Edwardo (for Ms. Martha Wyrsch); Ms. Frances Paulson (for Mr. Davis Bronczek)

OTHER DIGNITARIES PRESENT:

Mr. Darrell Darnell, Director of Critical Infrastructure Protection and Resilience Policy, National Security Staff; Mr. William Flynn, Acting Deputy Assistant Secretary, Office of Infrastructure Protection (IP), DHS; Mr. James Caverly, Director, Partnership and Outreach Division (POD), DHS; Todd Keil, Assistant Secretary for Office of Infrastructure Protection (IP), DHS Sue Armstrong, Acting Deputy Assistant Secretary for Office of Infrastructure Protection (IP), DHS Ms. Nancy Wong, Designated Federal Official, NIAC, DHS

I. OPENING OF MEETING

Nancy J. Wong, DFO, NIAC, DHS

Ms. Nancy Wong, Designated Federal Official (DFO) for the National Infrastructure Advisory Council (NIAC) called the meeting to order and welcomed distinguished guests to include: Mr. Erle Nye, NIAC Chairman; Mr. Alfred Berkeley, NIAC Vice Chairman; The Honorable Todd Keil, Assistant Secretary for Infrastructure Protection (ASIP), Mr. Darrell Darnell, Director of Infrastructure Protection Resilience of the National Security Staff, Acting Deputy Assistant Secretary for Information Protection (DASIP) Mr. William Flynn, Acting Deputy Assistant Secretary for Information Protection (DASIP) Ms. Sue Armstrong; as well as all of the members of the Council, Federal government representatives present in the room and on the teleconference, and members of the press and public in attendance.

Ms. Wong stated that the NIAC membership is composed of individuals that are appointed by the President to include senior executives from throughout all Critical Infrastructure and Key Resource (CIKR) disciplines as identified by Homeland Security Presidential Decision Directive 7 (HSPD-7) and that the NIAC charter, establishing the council, had been renewed by Executive Order (EO) of the President and Secretary for Homeland Security in October 2009. Within its language, the charter explains that the Council provides the President and Secretary of the Department of Homeland Security with advice on the security of both physical and cyber infrastructure and key resources which are imperative both to national and economic security as well as public safety.

II. ROLL CALL

Nancy J. Wong, DFO, NIAC, DHS

Ms. Wong called roll and recorded the members participating in the meeting.

III. OPENING REMARKS AND INTRODUCTION

Nancy J. Wong, DFO, NIAC, DHS; NIAC Chairman *Erle A. Nye*, Chairman Emeritus, TXU Corp.

Ms. Wong reiterated that the meeting is open to the public and stressed that members needed to take this into account when discussing issues and information of a sensitive nature. Before turning the meeting over to Mr. Nye, Ms. Wong discussed the protocol

and process for the public to submit comments on NIAC business. Upon completion of these instructions, Mr Nye officially took over the meeting.

IV. APPROVAL OF JANUARY 2010 MINUTES *NIAC Chairman Erle A. Nye,* Chairman Emeritus, TXU Corp

Chairman Nye directed the members' attention to the January 12, 2010 NIAC Quarterly Business Meeting minutes. After asking if there were any comments, corrections and/or omissions, Chairman Nye entertained a motion by Peg Grayson to approve the minutes. The motion was unanimously approved by the Council and Chairman Nye officially approved the minutes.

IV. WORKING GROUP: A Framework for Establishing Critical Infrastructure Resilience Goals

Alfred Berkeley, III, Vice Chairman
Chairman and CEO
Pipeline Trading, LLC

Michael Wallace, NIAC Member
Vice Chairman,
Constellation Energy;
Chairman, UniStar Nuclear Energy

Chairman Nye introduced both the *Framework for Establishing Critical Infrastructure Resilience Goals and Optimization of Resources of Mitigating Infrastructure Disruptions* working groups. Before turning the meeting over to Mr. Berkley, Mr. Nye mentioned the critical importance of these two studies and that due to their complexity, their completion would take additional time as compared to previous NIAC studies.

Mr. Berkeley informed the attendees that Mr. Ed Goetz would lead part of the presentation and then described the *Framework for Establishing Critical Infrastructure Resilience Goals* working group as a follow-on to previous studies that raised the question on how to understand the resilience capabilities of different critical infrastructure sectors. Initially, the focus of this study was all the interdependencies among all the sectors, but it was determined that this would be too complex. As a result, it was agreed to first look specifically at two sectors and their dependencies and expand the field as they progressed.

Mr. Berkeley next provided an overview of the study which included: objectives; scope; study approach; NIAC member participation; study group members; and the conceptual framework; which will help set the groundwork for expansion to the other sectors. It was explained by Mr. Berkeley the objective of this study is to assess how critical infrastructure sectors currently use resilience practices. Due to customer requirements it was noted all industries found within the county are resilient to some extent and in some instances regulation requires such practices, however these may not be classified as resilience and a goal of the study group is to determine what companies are doing on their own. Mr. Berkeley explained that the study group is not trying to establish resilience goals but to recommend policies and practices that will enhance resilience in the critical

infrastructure of the country. Additionally, he stated the study group is working to develop a template to assist the sectors in developing resilience goals.

The scope for the study is to determine if resilience goals are established within any sector and if so, how they came to be, understand how the sectors are positioned to respond to events and what happens if their resilience is severely strained. The study will conduct three sequential case studies: Nuclear and Electricity, Oil and Natural Gas, and Transportation. In the process of conducting the case studies there will be lessons learned and best practices that can be applied to other sectors.

Mr. Berkeley explained the NIAC member participation for the study; he is the overall chair of the study: Mike Wallace is the lead for the electric nuclear case study; Danny Houston and Martha Wyrsch will lead oil and natural gas; and Mr. Wells is going to lead the transportation case study. Mr. Berkeley then turned the presentation over to Mr. Ed Goetz, the substantive point of contact for NIAC member Mr. Michael Wallace.

Mr. Goetz presented information regarding the study approach. He highlighted the importance of remembering the study group is learning the process as well as conducting studies concurrently and as result, the structure may be modified depending on which area is being examined at the time. For example, nuclear and electric may slightly vary from gas and oil. He stressed that there can be no "one size fits all" approach for this study.

Mr. Goetz then directed the council's attention to the definition of resilience. He stressed the importance of having a common definition of resilience to ensure accuracy and it had agreed to use Mr. Flynn's definition of resilience, which is accepted by DHS and other branches of the Federal Government. The consequence mitigation, management recovery, and the analysis of how infrastructure systems functions during a disaster are all parts of resilience definition of continuity and captures that the essence of resilience is to maintain infrastructure functionality when practical and failing gracefully when not possible.

Mr. Goetz moved next to the "Conceptual Framework" slide and discussed its three dimensions; the aspects of resilience, resilience measures and the types of events to be considered in the study. He pointed out the following dimensions of the cube: on one side there are four aspects of resilience: robustness, resourcefulness, rapid recovery and adaptability. On another side there are two types or resilience measures: active and passive. Finally, the three types of events the working group is interested in examining for this study; cyber acts, intentional acts and unintentional acts.

Mr. Goetz next discussed to the "Application to the Electric Sector" slide which lists a mix of passive measures that exemplifies the types of data that will be gathered and categorized. For the electric sector, ensuring robustness via active measures often takes the form of exercises and drills but must also include building redundancies into the network. On the other side is adaptability to keep up with the changing threat

environment and the variety of hazards faced within Critical Infrastructure and Key Resources (CIKR) and the need to constantly revise emergency plans.
Before turning the presentation back over to Mr. Berkeley, Mr. Goetz mentioned that the examples in the slide are from trial interviews which help to both narrow the focus of the study and make substantial progress.

Mr. Berkeley thanked Mr. Goetz and then explained that it is imperative for NIAC members to understand what company investments in resilience are, what market competition requires companies to have, and what shareholder expectations require companies to have. He continued with what incremental private sector investment to enhance resilience might be and whether government initiatives like tax, credits, loan guarantees or civil reserve air fleet may be sensible to give NIAC some incremental resilience. Finally, at the top level decipher whether they acquire some structures for recommending direct government investment, indirect government investment, or other actions to achieve resilience.

Mr. Berkeley moved the focus of his discussion to the "Next Steps" slide and reiterated that the working group will continue its inquiry with subject matter experts and background information literature studies; conduct detailed interviews within a company; and gain understanding of the scenarios that stress companies and sectors beyond their current levels and capacity. He stated that by the next cycle the goal template should be completed and used across multiple sectors.

Mr. Berkeley concluded his remarks by stating to Chairman Nye that the group has accomplished a lot of substantial work and would be moving forward to conduct detailed interviews. He added that the working group as continued to be actively involved and meets every Friday at 11 a.m. with assistance through both Jack Eisenhauer and the NIAC staff. Upon completion of his remarks, Mr. Berkeley opened his session to questions from the NIAC.

Chairman Nye commended Mr. Berkeley and Mr. Goetz on their work for the study group. He expressed that he has always recommended opportunities to invite prominent people in the industry to participate in deliberations and pointed out slide six's list of individuals, recruited by Mr. Berkeley to work on the study. He then asked if any efforts have been made to reach out to the public power sector; primarily investor owned companies like a state agency or municipality. Mr. Berkeley replied that the working group welcomes additional resources and suggested further discussions of this subject.

Mr. Flynn inquired about assigning any weight factors to resilience components, if a company has a continuity of operation plan (COOP), and if there is a metric or way to assign to that versus other components or resilience. Mr. Berkeley replied that the council had developed a scale for weighting various threats early in the history of the NIAC and it was used by Congress in the budgeting process to balance the interest of different requests for funding based on threat assessments around the country. To date, this has not been done yet but is up for consideration.

Chairman Nye expressed gratitude to Mr. Berkeley and Mr. Archuleta and also extended his appreciation to Mr. Wallace, who was unable to attend the meeting. Mr. Berkeley added that Mr. Wallace deserves credit for being instrumental in recruiting the study group members to participate. Todd Keil, Assistant Secretary for Infrastructure Protection, was then invited by Chairman Nye to offer comments.

Secretary Keil began by thanking Chairman Nye and expressed his enthusiasm to be able to meet with the Council. He stressed to the Council that DHS, the Secretary and the President all value the recommendations and commitments of the NIAC members. Secretary Keil stated that the Secretary, the Under Secretary and the Deputy Under Secretary, apologized that they couldn't be present for the meeting due to business travel but it was great to have Mr. Darrell Darnell from the National Security Staff at the White House present for this important meeting.

Secretary Keil stated the Council's charter renewed in October of 2009 speaks to the view of the administration and DHS that it continues to provide a valued service by obtaining an understanding of critical infrastructure owners and operators and state and local leaders strategic and policy concerns for both infrastructure protection and resilience. The national missions of critical infrastructure protection and building resilience have long been recognized as a shared mission that results in work progression in local communities. The focus of the current NIAC studies mirrors this shared mission.

Secretary Keil discussed his attendance at a meeting with the state local tribal and territorial government coordinating council (SLTTGCC) where he learned that that NIAC studies and reports are taken very seriously, reviewed and applied to their programs at the state and local levels. He expressed how gratifying it is to see the NIAC's work actually being utilized and then explained that IP's capabilities are widely recognized as filling the federal role to identify and prioritize national critical infrastructure. The IP is undertaking a major initiative to expand and focus its program activities at a regional and a local level and he emphasized the critical importance of the NIAC's work on local communities. This is now a renewed focus of infrastructure protection and it is something they will continue to monitor in the future.

Secretary Keil explained that IP is now positioning itself in line with the Quadrennial Homeland Security Review (QHSR) to deploy more of IP's capabilities into the field to build capability and capacity by stakeholders and that the NIAC can expect to receive tasking from the secretary that will reflect more regional and field focus on the QHSR alignment, required by the QHSR.

Secretary Keil stated that he looked forward to receiving recommendations that come out of the studies and the specific perspectives they represent. The NIAC has a reputation for delivering well-researched studies and thoughtful recommendations and pointed out the NIAC's 18 full reports and commended Chairman Nye for his dedicated efforts and support to the council. On behalf of the president's administration, Secretary Keil

recognized and thanked members of the council for their participation and commitment to improving the nation's critical infrastructure protection and resilient policies and strategies.

Secretary Keil mentioned conversations with Secretary Napolitano and Undersecretary Beers about additional taskings that they would like the Council to consider. Specifically on behalf of the secretary, IP has requested the NIAC to focus on intelligence sharing review and update. IP would like to see the Council review and assess the current state of intelligence information sharing between government, the critical infrastructure owners and operators and its effectiveness, identifying progress, gaps, and recommendations for improvement as well as identify issues and recommend improvements; identify the role of critical infrastructure owners and operators; and their contribution to the Homeland Security mission of counter intelligence; and recommend an approach to implementation. Secretary Keil emphasized the vital importance of this task as the information sharing component is a critical issue for the state and local level and critical infrastructure owner operator.

Secretary Keil proceeded to an additional task the secretary suggested the NIAC to focus on the emergency services sector. Under this task the Council would be asked to review and assess the role the emergency services sector plays relative to the critical infrastructure protection and resilient mission, consider the application of the NIAC's definition of resilience to the sector and identify strategies and approaches to achieve such resilience. Secretary Keil stressed the significance of this and how it will be beneficial for the NIAC to apply its expertise and knowledge to the task. Secretary Keil then concluded his remarks and commended the council on its work and dedication to the NIAC.

Chairman Nye responded that the two studies the Secretary outlined are important, complete and challenging. He recognized the relevance of the studies and stated that some of the NIAC's previous studies focus more on the cooperation and the sharing between Federal Government and private sector. Additional members would be helpful, specifically in the area of emergency services and telecommunications. Historically the NIAC has always had great support from the telecommunications industry, although they have their own advisory council, but it is imperative they be represented in the NIAC. Moreover the telecommunications sector is a part of almost every study conducted by the NIAC. Chairman Nye thanked the Secretary for his presence at the meeting before his formal introduction of Mr. Darrell Darnell, Director of Critical Infrastructure Protection and Resilience Policy on the National Security Staff, as friend of the Council.

Mr. Darnell thanked the Chairman Nye and followed up on Secretary Keil's comments regarding the accomplishments of the NIAC as well as what it means to build both a sustainable critical infrastructure protection program and resilience policy program. Overall he praised the work of the Council, in particular, the September report on Resiliency and expressed what the council's work means to the National Security Office. Mr. Darnell pointed out that the reports are generating a great deal of attention within the

White House as well as interagency and looks forward to hearing the NIAC's progress as well as Mr. Berkeley's working group.

Mr. Darnell stressed the importance of the *Framework for Establishing Critical Infrastructure Resilience Goals* working group and how it is beneficial to the White House in the development of a standardizing process. He affirmed that the White House will be working closely with the IP to fill the member vacancies and that this process is currently underway and agreed with the assertion that the Council's needs a telecommunications person on the NIAC. Mr. Darnell added that the National Security Telecommunications Advisory Committee (NSTAC) has the primary responsibility for telecommunication; however he had discussions, with Mr. Howard Smith, the President's Advisor on Cyber Securities on that issue and believes that while each committee has a separate focus that there are overlaps and it is important to recognize these and identify where the two bodies can work together.

Chairman Nye thanked Mr. Darnell and assured him that there are statements on the two undertakings that describe the aforementioned sectors explained by Mr. Darnell.

V. WORKING GROUP: The Optimization of Resource For Mitigating Infrastructure Disruptions

Margret Grayson, NIAC Member
Principal
Essential 2 Management

Mr. Thomas E. Noon
NIAC Member
Former General Management,
IBM Internet Security Systems

Ms. Peg Grayson thanked Chairman Nye and introduced her co-chair Mr. Tom Noonan. She explained they chose the title of the study as *Optimization of Resources for Mitigating Infrastructure Disruptions* due to the fact that the main focus of the study fell under critical infrastructure instead of community resilience. She then mentioned the key topics of the study were to include: background, framing the challenge of the study with the working group members, the study scope, the synergy between the CIKR resilience and community resilience, and finally the evaluation and understanding of interdependencies.

Ms. Grayson then addressed the "The Background and Context" slide and mentioned that the administration has established a new strategic framework for the Department of Homeland Security where resilience is one of the three core concepts. This approach envelopes the entire ecosystem of infrastructure related services and products; both the service providers and those who rely on these services at the individual, the family and the community level and clearly ties infrastructure resilience to the broad based resilience of communities and the people that live in them.

Ms. Grayson described how the 2009 study led the way in establishing resilience as a fundamental concept for sustaining and enhancing infrastructure capability. This study defined core elements of the infrastructure resilience and how they contribute to the nation security and to all citizens' quality of life.

Ms. Grayson noted that community resilience was excluded from the 2009 study and although this was intentional because of the complexities, the findings indicate that they worked through the early stages of the study. It is extremely complex with significant interdependencies and is necessary to reach out below the level of CIKR owners and operators to the state and local community councils and also to the individual community personnel for information and ability to inform the study.

Ms. Grayson proceeded to the "Framing the Challenge" slide which shows that the linkage between infrastructure resilience and community resilience is very clear. A community cannot recover without vital services and 18 critical infrastructure sectors were examined, then look at the way to measure the order in which the CIKR recovery modes would be most important if there is a disruption in a community. Clearly power, water, food, medical care, even the ability to get cash in an emergency is and was defined in the earlier resilience study as critical. In turn infrastructure cannot fully be resilient without the close linkages to the community. Synchronizing these relationships is important to understand the complexities; the study group learned that this is an enormous challenge. In order to enhance the contributions they are examining and identifying linkages of infrastructure so that the study group can evaluate the ecosystem of the critical infrastructure as well as the communities and define the interdependencies.

Many of the critical sectors have established well proven programs and the group has learned this with the critical infrastructures their ability to have backup, redundant systems and in many situations the ability to support each other by sharing capabilities and sharing their resources is important and was stressed. Many communities are smaller and don't have the resources that large communities have. We are looking to the critical infrastructure then to share that information and support the communities directly.

In the next slide, "Study Scope" Ms. Grayson expressed that they will consider all CIKRs to evaluate criticality and the timing of loss. They are using that as the basic measure of the way to identify and rank order of the critical infrastructures and the required support for communities. The working group will examine the strength of resilience to recovery present in the individual sectors; consider interdependency effects, both among the sectors among physical and cyber systems and across the sectors, examine potential plans to optimize resource availability and coordination in planning, work with the emergency services that supports the communities and the ability for the critical infrastructures to come back up and running in the case of a critical situation. In short, the group would be looking at policies that will strengthen the robustness of high criticality sectors, and the synergy and interrelationships between those critical infrastructures and the communities that they support.

In the next slide, Ms. Grayson explained the "Key Aspect" which is focusing the original and early stage part of the study to enhance the synergy between the CIKR and community resilience. Although the study has evolved over the past several months, it has become clear that optimization of resources cannot be achieved without considering the combined capabilities of infrastructure owners and operators as well as the communities that they serve. The 2009 study articulated a clear definition of resilience as it applies to the familiar world and the infrastructures that they support. This study will now focus into less familiar territory, where coordination of resources is important. Ms. Grayson noted that there is no single point of contact to be found when they start to explore the community resilience and community capability.

Moving back to an individual CIKR, Ms. Grayson explained that this is very difficult and it is imperative to work with the communities themselves, understand their needs and their requirements, as well as understand what the communities can provide when there is a disruption of service. In a broad world of successful community resilience life must go on: businesses have to operate, people have to work, and children have to go to school. The intent of the study is to delve into the requirements of the community, and then to understand what those interrelationships are with the critical infrastructures as well as to establish coordination and bring forth recommendations that would provide and inform the government in ways that they can help support and ensure that life does go on in a community that encourages disruption.

Ms. Grayson then pointed the study's approach. This slide describes the fundamental direction the working group would take this study by using an approach that has proven successful in previous studies. For this study, the functional steps will include: data gathering; analysis; synthesis; developing the findings; and recommendations, a process that has been practiced in previous studies. The difference in this study will be those that are not directly involved with the business infrastructure. Ms. Grayson indicated that they are currently dealing with the communities; and the communities are dealing with the business of everyday life. Accordingly, one of the most critical aspects of the study is the effective engagement of its colleagues in the state and local levels and to make sure that their insights, their information, their support in developing the research, and making the recommendations is gained by and included in this study.

Ms. Grayson concluded her remarks by turning over the presentation to her colleague, Mr. Tom Noonan, who talked about the details of the information resources and how the study will progress. Mr. Noonan thanked Ms. Grayson and the Council and went on to say that Ms. Grayson has framed the challenge and the step, the study scope and the approach. The next step is to report out on key information sources, and this is a critical part of the study and the input comes from two primary sources: discussions with leaders and experts in government industry and members of the State, Local, Tribal, and Territorial Government Coordinating Council (SLTGCC). These in person discussions and teleconferences will be underpinned by background research and analysis on government policies and programs. It is anticipated that the two primary sources will provide a broad depiction of the current activity as well as emerging trends and issues.

Mr. Noonan pointed out some of the sample questions are not all inclusive, however some are key to open discussions and to frame the general context of the desires and information that the study seeks. These lead questions provide the initial focus on functions to answer what works well and what doesn't. A second set of questions will focus on resources to answer what are the resource management aspects of this functional performance. Finally the focus will be at the heart of the NIAC mission by addressing core policy and program question and what steps might the government take to encourage the contribution of CIKR resilience to community resilience..

Clearly, key sector discussions will include emergency services, communications, energy, electricity, water, transportation and chemical as well as other sectors that are central to the study. It was noted that this list is hardly exclusive, but clearly these are some of the critical sectors in key industries. As, Ms. Grayson previously mentioned, the financial sector is vital; individuals and business need access to cash and credit and the same is certainly true for infrastructure repair and restoration crews, health and healthcare sector, those are similarly important. Just one example of this is a need to maintain the supply for pharmaceuticals, particularly if disruptions are protracted, sustained or wide-spread.

Mr. Noonan reminded the council that he already mentioned the particular importance of the goal in SLTTGCC and others in the state, local and regional communities participating. They can be engaged in the study which is very helpful because they can bring a wealth of knowledge to the table from a perspective and understanding in which they are uniquely qualified to offer that type of expertise. As a result together this combination of owner operator and community governance perspectives, utilizing subject matter experts as well as state local and regional perspectives will yield fresh insights on the core issues and opportunities.

The study will examine a linked series of three topics related to resilience. Broadly the recommendations will address the functional attributes of what works and what doesn't work. The heart of the study, which is the resource management aspect of the joint public/private planning coordination and where and how changes or refinements to governance can help both improve the functioning as well as develop the resource management. They anticipate that the findings will lead not just to meeting the NIAC mission of advice to government, but it will also identify key insights, lessons learned, and effective and best practices that can be immediately useful to infrastructure owner operators and government.

As Ms. Grayson indicated the working group created the study timeline at the beginning of the year and it took them some time to really get focused on what problem they needed to solve. Most of the constructive dialogue, debate and help from DHS support team were narrowed down to this as a natural extension of the resiliency study. As a result the working group is well underway today with background research and analysis component of the study, and also initiating interviews and discussion component of the study. Mr.

Noonan reiterated what he previously mention about engaging SLTTGCC formally at their town meeting as an organization.

Mr. Noonan announced the study group members in addition to him and Ms. Grayson included: Mr. David Kepler, Mr. Jim Nicholson and Mr. Al Edmunds, all who bring great interest and expertise to the topic. He thanked the working group members for their great insight and years of experience and with their assistance as well as the assistance of others the working group looks forward to delivering a substantive, interim report in the summer and a more substantive and useful report in October. Mr. Noonan concluded his remarks with thanking the council and opening up floor for questions and comments.

Mr. Darnell offered a suggestion with regards to slide nine under subject matter expertise and slide ten under governance and policy programs. In his query, he asked the group if they considered interviewing community leaders and referred back to the Lake Force community in New Orleans and some of the obstacles they endured in getting their infrastructure back in place. In response, Ms. Grayson recognized that their study group discussed the matter and they are currently reaching out to the Lake Force community in order to enhance their knowledge of how communities can recover. Mr. Darnell responded by offering his assistance not only from himself, but from other groups as well.

Chairman Nye opened the floor for other comments and suggestions.

Secretary Keil referred back to slide three, where the group discussed how many critical sectors established programs and processes for resource sharing. He asked the panel if they are only going to look at the formal process or if they are going to try to see what happens. Ms. Grayson responded by acknowledging their formal approach of shared resources based on their previous study on resilience, however she understood the difference among smaller communities and their means of sharing resources and called on Secretary Keil to help in regards to recommending resources.

Ms. Armstrong later asked Ms. Grayson if they ever considered tapping into the Local Emergency Planning Committee (LEPC), networking the LEPC, in terms of what they do, how they plan, lessons learned, and best practices. She then offered assistance from IP in helping the group select places in the country to consult with their committee.

VI. ADJOURNMENT

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

Chairman Nye reiterated that there are currently two complex studies underway with substantial but necessary requirements remaining before completion of these tasks, Before asking Mr. Berkeley for any remarks, he closed by encouraging each member to facilitate the work that they do for the Council and continue to remain actively engaged
Mr. Flynn touched base on some of the statements that Secretary Keil made in regards to the tasks of the Council.

He continued by looking back to 2009, and how it was the busiest year for the Federal Government in terms of counter terrorism and encouraged the group to understand the demand placed upon the council and its importance.

Mr. Darnell thanked the council and reiterated its great work and how he looks forward to the final outcome of both reports. He offered support from the White House level if needed and Chairman Nye thanked Mr. Darnell for his comments and support.

Chairman Nye concluded by asking the group to complete a survey to determine how many members could meet on particular dates in the future but reminded the group that July 13, 2010 and October 19, 2010 are the current dates selected for Council meetings. He encouraged everyone to be present and reminded them to anticipate discussions on the two current studies.

Chairman Nye thanked the group for being present and the meeting was adjourned.

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

April 13, 2010

Al Berkeley
Chairman
Pipeline Trading Systems

Mike Wallace
Vice Chairman
Constellation Energy
Chairman, UniStar Nuclear Energy

Overview

- Objectives
- Scope
- Study Approach
- NIAC Member Participation
- Study Group Members
- Conceptual Framework for Developing Resilience Goals
- Next Steps
- Questions

Objectives

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

Scope

- Determine if and how resilience goals are established within sectors
- Understand how sectors are positioned to respond to an event that severely strains their resilience
- Conduct three sequential case studies: 1) Nuclear and Electricity; 2) Oil and Natural Gas; and 3) Transportation Sectors
- Study will **not** seek to formulate and/or impose resilience goals on CIKR sectors

NIAC Member Participation

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

Study Group Members

Core Study Group (weekly conference calls):

- **Mike Wallace**, Vice Chairman, Constellation Energy, **Study Group Chair**
- **Michael Assante,** Vice President and Chief Security Office, North American Electric Reliability Corporation (NERC)
- **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)
- **Kenneth DeFontes**, President and CEO, Baltimore Gas and Electric Company
- **Jose Delgado**, President and CEO, American Transmission Company
- **Scot Hathaway,** Vice President, Transmission, Dominion Virginia Power
- **Paul Koonce,** CEO, Dominion Virginia Power
- **Robin Manning**, Executive Vice President, Power System Operations, Tennessee Valley Authority (TVA)

Study Approach

- Each case study will include four interrelated information collection and analysis tasks:
  - Task 1: Assess current resilience practices and strategies
  - Task 2: Assess sector resilience in “stressed” state
  - Task 3: Develop a template for developing sector goals
  - Task 4: Identify policies and practices to enhance sector resilience and achieve goals
- The results of each case study will be used to inform and refine subsequent case studies

Next Steps

- Review latest studies on infrastructure resilience
- Conduct interviews focused on sector-specific resilience
  - Current resilience practices and strategies
  - Scenarios that stress sectors beyond their current levels of resilience
  - Steps to achieve greater resilience
- Design and hone “goal template”
- Examine public and private sector roles and actions to address gaps in resilience

Questions?

National Infrastructure Advisory Council (NIAC)

Optimization of Resources for Mitigating Infrastructure Disruptions Working Group

April 13, 2010

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Overview

- Background and Context
- Framing the Challenge
- Study Scope
- Key Aspect: Enhancing the Synergy Between CIKR and Community Resilience
- Study Approach
  - Key Information Sources
  - Sample of Key Questions
  - Discussions and Interviews
- Areas for Potential Recommendations
- Study Timeline

Background and Context

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

Framing the Challenge

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

Study Scope

- Consider all CIKR to evaluate criticality and timing of loss
- Examine strength of resilience and recovery present in sectors
- Consider interdependency effects:
  - Among sectors
  - Among physical and cyber systems
  - Across sectors and communities
- Examine potential paths to optimize resource availability, coordination, and planning
- Examine policy options to strengthen:
  - The robustness of high-criticality sectors
  - Synergies in the contributions of CIKR robustness to the resilience of communities

Key Aspect: Enhancing the Synergy Between CIKR and Community Resilience

- **Infrastructure resilience** is the ability to reduce the magnitude and/or duration of disruptive events. It is the ability to *anticipate, absorb, adapt to, and/or rapidly recover* from a potentially disruptive event. Key aspects:
  - Interdependency effects
  - Resource availability/flexibility/sharing
  - Time to service recovery
- **Community resilience** is the capability to return citizens to work, reopen businesses, and restore the basic services and economic stability of a community or a linked group of affected communities. Key aspects:
  - Understanding of shared dependencies – across communities, across services
  - Timing and coordination of resources – local, regional, and national

Key Information Sources

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

Sample of Key Questions

- What are current practices in aligning CIKR resilience with community resilience?
- Are there existing success models in public-private partnerships that can guide improvements in CIKR/community resilience?
- Are there areas of current (or potential) weaknesses in resilience practices?
- Where are the best areas of opportunity to achieve synergies among communities and sectors?
- How do existing government programs help or hinder synergies in these areas?

Discussions and Interviews

- Key Sector Discussions
  - Emergency Services
  - Communications
  - Energy – Electricity
  - Water
  - Transportation
  - Chemical
- Local, State, and Regional Perspectives
  - SLTTGCC
  - Regional consortia and programs
- Subject Matter Expertise
  - Community effects of infrastructure loss
  - Cyber security and information assurance
  - Interdependency, recovery, and mutual aid agreements

Areas for Potential Recommendations

- Functions: Interdependency and Timing
  - Defining and targeting critical "rate-limiting" interdependencies that
    - Contribute to cascading impacts
    - Inhibit time to recover
  - Identifying and aligning resilience capabilities of physical *and* cyber infrastructure
- Resources: Planning and Coordination
  - Assuring availability of time-critical resources
  - Capitalizing on potential synergies in mutual assistance and resource sharing
- Governance: Policy and Programs
  - Enhancing the framework of *shared* CIKR and community resilience
  - Attaining alignment and synergy between bottom-up (community) and top-down (national) planning and strategy
  - Identifying model policies and programs

Study Group Members

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