

National Infrastructure Advisory Council

Executive Collaboration for the Nation's Strategic Infrastructure

Responses to National Security Council Questions

December 1, 2015

Background

The National Infrastructure Advisory Council (NIAC) issued its report and recommendations on *Executive Collaboration for the Nation's Strategic Infrastructure* (the Report) in April 2015.

The Report and its recommendations responded to a tasking by the White House in April 2014, asking the NIAC to study Chief Executive Officer (CEO) and other equivalent decision-maker engagement. The NIAC was to provide its perspective on a CEO's decision-making role, contribution to a public-private partnership, benefits and challenges of such engagement, and criteria for effective sustainability when required. The tasking also asked the NIAC to recommend a model for CEO-level communication. The NIAC members were given the following "framing questions" to develop its recommendations:

1. What is the role and obligations of the CEO to their institutions and under what circumstances would these obligations motivate them to engage actively with the shared Critical Infrastructure Security and Resilience (CISR) mission?
2. What is the framework for mutually productive engagement for the government and senior executive decision-makers, such as CEOs, to engage to support the shared mission?
3. What might be effective and persuasive ways to communicate the objectives of the National Infrastructure Protection Plan (NIPP) to Senior Executive Decision-Makers, such as CEOs, that would motivate them to actively participate in accomplishing the NIPP objectives?

To address this task, the NIAC established the CEO Engagement Working Group to collect perspectives and data, develop findings, and make recommendations to the full NIAC for consideration. The Working Group took an approach of developing six case studies. "CEO" was used as a short-hand for senior executive decision-makers recognizing that the CEO may not always be the appropriate executive decision-maker for an issue depending on the size and scope

of the owner and operator institution's business. The Working Group delivered its final report to the NIAC on March 20, 2015.

In that quarterly business meeting, the full NIAC accepted the following findings:

1. **Specific Role of CEO and Senior Executive Decision-Makers:** CEOs and Senior Executive Decision-Makers provide thought leadership, approve strategy, set priorities, make decisions and apply investments, mobilize action, and hold accountability.
2. **Motivation for Self-Organization:** CEOs and other Senior Executive Decision-Makers organize themselves within their sectors around specific types of issues relevant to their role and responsibilities.
3. **Motivation for Public-Private and Cross-Sector Engagement:** CEOs and Senior Executive Decision-Makers engage with the Federal government and across sectors when an issue potentially has a direct impact on their financials, their operations, and when the requirements to address it lie beyond their direct control.
4. **Sustaining Engagement:** Engagement with CEOs and Senior Executive Decision-Makers can only be sustained when there are concrete results produced and progress is measurable.
5. **Leveraging Existing Sector Organizational Structures:** Most sectors have established organizational structures for engaging CEOs and Senior Executive Decision-Makers, which can be leveraged for efficiency and are often used as "trusted" channels of communication and collaboration.
6. **Challenges and Obstacles:** The inherent diversity and complexity of sector structures and governance regimes will need to be incorporated into the process for initiating and sustaining CEO engagement.

To address the first two "framing questions" of its task, the NIAC recommended the following five actions to establish a structure and process framework for CEO and Senior Executive Decision-Maker engagement:

1. The President should direct the Secretary of Homeland Security to work with the Sector Specific Agency heads for the Electricity Sub-Sector, Water, Transportation, Communications, and Financial Services to **establish a Strategic Infrastructure Executive Council** under CIPAC, composed of CEO or Senior Executive Decision-Makers from these sectors and their counterpart agencies, to identify national priorities and develop joint or coordinated action plans and agreements to implement them.
2. The Secretary of Homeland Security should work with the Secretary of Energy to **facilitate the Electricity Sub-Sector sponsorship** of the Strategic Infrastructure Executive Council and its CEO or Senior Executive Decision-Makers as a cross sector group under CIPAC.
3. For any proposed engagement within this framework, the Secretary of Homeland Security should work with the relevant Sector Specific Agency heads and the Assistant to the President for Homeland Security and Counterterrorism in the National Security Council to **identify, clarify, and articulate the relevant national priorities, and the**

compelling and mutual value proposition in consultation with their sector counterparts, in preparation for engagement.

4. The Secretaries of Homeland Security and Energy should work with other relevant Sector Specific Agency heads and their critical infrastructure counterparts to **identify the appropriate CEOs or Senior Executive Decision-Makers** to participate in this engagement framework.
5. The President should **establish a permanent budget line item** through the Office of Management and Budget and the Department of Homeland Security, as the recognized national coordinator for the critical infrastructure security and resilience mission, to provide permanent staff, analytic resources and administrative support, to assure the effectiveness and efficiency of participation by Senior Executive Decision-Makers in the framework **to advance the national actions needed. Sustainable progress** for a forum of both public and private **senior executives to produce meaningful results** for critical infrastructure-related national security issues **requires dedicated support**.

To address the last framing question, the NIAC provided recommendations composing a model for communication targeting CEOs and equivalent senior executive decision-makers. The NIAC transmitted its final report bearing these findings and recommendations to the President following its March 20, 2015 quarterly business meeting.

Clarification Request

In August 2015, the National Security Council requested that the NIAC address additional questions to clarify recommendations in the report. These questions were based on feedback from various Sector Specific Agencies and Sector Coordinating Councils of the NIPP Sector Partnership. The National Security Council requested clarification through five questions:

1. Given the current objectives and composition of the NIAC and the Partnership for Critical Infrastructure Security (PCIS), how would the role of the proposed Strategic Infrastructure Executive Council (SIEC) differ from the existing councils? How (if at all) would the current structure need to be modified to accommodate the proposed SIEC?
2. Please clarify the proposed reporting structure for the SIEC as well as the process for tasking the group.
3. How would the sectors not recommended as core members to the proposed SIEC communicate with or take part in the SIEC?
4. How could the proposed SIEC best optimize sector representation when some sectors include a very complex and diverse range of stakeholders and participants?
5. Please provide a list of the questions that were asked of the subject matter experts who were interviewed.

NIAC Clarification Responses

1. Given the current objectives and composition of the NIAC and the Partnership for Critical Infrastructure Security (PCIS), how would the role of the proposed Strategic Infrastructure Executive Council (SIEC) differ from the existing councils? How (if at all) would the current structure need to be modified to accommodate the proposed SIEC?

For the purpose of the Report, the NIAC defined “engagement” as an outcomes oriented activity which convenes parties to address and solve a mutually identified issue.

The NIAC sees clear differences between the NIAC, the PCIS and its recommended SIEC.

COMPARISON

Entity	Type	Membership	Purpose
NIAC	Public Sector (Federal Government)	CEO-level Subject Matter Experts from across CI sectors, State and local government and academia	ADVISE: “NIAC shall advise the President through the Secretary of Homeland Security on issues related to the security and resilience of the Nation’s critical infrastructure sectors and their functional systems, physical assets, and cyber networks.” ¹
PCIS	Private Sector	Affiliation of Sector Coordinating Councils under the NIPP	COORDINATE AND PROMOTE: “The mission of the Partnership for Critical Infrastructure Security (PCIS) is to coordinate common CI/KR cross-sector initiatives that promote public and private efforts to help ensure secure, safe, reliable, and resilient critical infrastructure services” ²
SIEC	Public-Private Sector (CIPAC Working Group)	Sector-identified CEOs, or equivalent decision-makers, relevant to the 5 sectors central to the operations of all sectors; and their counterparts in Sector Specific Agencies	ACCELERATE DELIVERY OF SOLUTIONS to NATIONAL CISR ISSUES: Formalize process for direct CEO engagement (similar to the CEO model in the Electricity sector) for strategy and policy problem solving on relevant issues among the five sectors; and bring resources and leadership to accelerate solution development and implementation

The nature and sheer volume of the evolving threats require accelerating progress for improvements and realizing commitments to substantive action in a more systematic, coordinated way across sectors. Consequently, **senior executive decision-makers in both public and private sector need to be drawn into systematic discussions on priorities,**

¹ www.dhs.gov/NIAC, NIAC Charter, 2013

² <http://www.sheriffs.org/content/partnership-critical-infrastructure-security>, accessed Oct. 19, 2015

particularly in sectors central to the operations of other sectors. These senior executive decision makers would focus on problem-solving through joint strategies and policies, and empower action to achieve measurable results within and across their sector communities.³

Resilient infrastructure operations require much more consequential coordination across an enterprise. It requires a consideration of trade-offs between efficiencies of operations that rely on use of technology and design of business processes. Both a focus on long term capital expenditures and asset and functional design and the potential changes in business or industry strategies must be considered together, in order to assure operations continuity against threats with potential catastrophic consequences. Resilience also requires managing dependencies across sectors, as well as with government, potentially requiring the coordination of investment actions to support mutual interests across sectors. Most of **these activities require decisions and direction from CEOs or equivalent senior decision-makers**. CEOs have the influence to **move entire sectors or sub-sectors in a desired direction rapidly** when it is in the best interest of their businesses and industries to do so.

Consequently, the NIAC found in its Report that the greatest value proposition for engagement at the CEO level came from cross-sector strategic and policy problem solving, particularly with, and among, the nation’s lifeline sectors. Moreover, the NIAC determined that there is a compelling case to bring greater focus to meet national needs by creating a new breakout group which should be called the “Strategic Infrastructure,” comprised of electricity, communications, financial services, transportation, and water. It would be established as a cross-sector group under the Critical Infrastructure Partnership Advisory Council (CIPAC) to incorporate both sector CEOs or equivalent senior executive decision-makers, and their counterparts in the Sector Specific Agencies from the five sectors. Any engagement of CEOs would require careful and clear definition of the issues to be addressed that are appropriate for their level of problem-solving and decision-making.

The makeup of the SIEC would include three to five senior executives from each of the five sectors or sub sectors, as identified through the process provided in recommendation number four (page 3 of this document). Further, the appropriate sector specific agencies working with DHS would identify their membership to the SIEC. It is expected that the group will be self-organizing based on relevant and important issues and effective and efficient processes for addressing those issues

The SIEC would focus on specific issues and include making commitments to action for their sectors or the relevant segment of their sector. The relevant Sector Specific Agencies would work through their Sector Coordinating Councils (SCCs) to identify the representative CEOs

³ NIAC, *Executive Collaboration for the Nation’s Strategic Critical Infrastructure*, p. 12

or equivalent senior executive decision-makers relevant to the topics at hand for the group.⁴ The NIAC recommended from its findings on the nature of the role and responsibilities of the CEO, that “the degree of engagement will depend on the issue, its relevance and value proposition to a sector, and its national priority.”⁵ In fact, the NIAC included in its second recommendation steps to identify those priorities and value propositions (i.e. issues and challenges addressed with practical outcomes) appropriate for CEO level engagement.

The CIPAC framework was originally conceived as an outcomes oriented, issue resolution mechanism, which at times would require advice to be given to the Federal government when its inherently governmental authorities were needed to address an issue.⁶ The CIPAC was originally designed to empower engagement with the right level of individual decision-makers or subject matter expertise when it was needed by the Federal government and the sectors, depending on the issue or activity to be addressed. “CIPAC membership is organizational. Multiple individuals may participate in CIPAC activities on behalf of a member organization.”⁷ As an example, in the Electricity Sub-Sector, when strategic and policy issues need to be addressed for the entire sector, the Sub-Sector brings CEO-level representatives to the activity, and will have operational subject matter experts participate when the issue is implementation-oriented, operational, or tactical.

The PCIS’ membership is broadly composed of the chairs of each of the SCCs. A few of the SCCs represented on the PCIS are composed of CEO-level members, but active participants in the PCIS are most often not CEO or senior executive decision-maker equivalents with the ability to influence sector-wide direction. It operates independent of the Federal government. It coordinates self-selected activities across the sectors and meets regularly as a cross-sector channel of communication for the SCCs to the Federal government.

The NIAC is a government entity whose membership is composed of CEO-level subject matter experts, who become Special Government Employees as a requirement of membership. It provides independent advice to the President on topics at his direction under the Federal Advisory Committee Act. It only has authority to provide advice. Its members can neither represent their sector nor their companies as Special Government Employees. The value of their participation is in the strategic expertise and decision-making experience they bring as CEOs or senior executive equivalents as owners and operators of the Nation’s critical infrastructure.

The current structure of the NIPP Sector Partnership and the CIPAC would require no

⁴ NIAC, *Executive Collaboration for the Nation’s Strategic Critical Infrastructure*, p. 27

⁵ NIAC, *Executive Collaboration for the Nation’s Strategic Critical Infrastructure*, p. 25

⁶ Federal Register Notice: *Critical Infrastructure Partnership Advisory Council, Notice of committee establishment*, March 24, 2006, page 149321

⁷ Federal Register Notice: *The Critical Infrastructure Partnership Advisory Council, Notice of CIPAC charter revisions*, January 14, 2015

modification to establish the SIEC.

- 2. Please clarify the proposed reporting structure for the SIEC as well as the process for tasking the group.*

CIPAC was originally designed so that critical infrastructure sectors could engage with the Federal government to jointly identify and solve problems at any leadership level when required by a given type of issue. Under CIPAC, any working group may work directly with their counterparts in government. By CIPAC procedural policy, and in the spirit of intra-sector coordination, each member of the working group or through their representatives reports back to their SCCs the results of the working group meetings.

In its Report, the NIAC recommended that the **Electricity Sub-Sector sponsor the SIEC as a cross-sector working group under the CIPAC**. The Electricity Sub-Sector was found a common thread of dependency among the other infrastructure sectors, as well as a “best practice” in CEO “engagement” as defined by the NIAC, with the Federal government. CEOs in other sectors have begun participating in the Electricity Sub-Sector CEO-level SCC meetings.⁸ The SIEC would formalize this process for the five sectors which are central to the operations of the other sectors, and provide for direct engagement of all the relevant Sector Specific Agencies as well.

NIAC bounded core participation in the SIEC to these specific sectors strategic to the other sectors in order to strengthen focus on producing concrete and substantial outcomes.

The CIPAC houses a voluntary engagement framework between the sectors and the Federal government. It was originally designed so that the sectors could engage with the Federal government to jointly identify and solve problems.⁹ Consequently, **tasking is mutually agreed upon by the relevant sectors and the Federal government**. The NIAC recommended in its Report that for any proposed engagement through the SIEC, “the **Secretary of Homeland Security should work with the relevant Sector Specific Agency heads and the Assistant to the President for Homeland Security and Counterterrorism in the National Security Council to identify, clarify, and articulate the relevant national priorities, and the compelling and mutual value proposition in consultation with their sector counterparts**” in the SIEC.

- 3. How would the sectors not recommended as core members to the proposed SIEC communicate with or take part in the SIEC?*

⁸ NIAC, *Executive Collaboration for the Nation’s Strategic Critical Infrastructure*, p. 8

⁹ NIAC, *Executive Collaboration for the Nation’s Strategic Critical Infrastructure*, p. 25

The Council identified Electricity, Water, Communications, Financial Services, and Transportation as the five sectors or sub-sectors to be core members of the SIEC because of their centrality to the resilience of most of the other sectors and their national security implications when disrupted.¹⁰ The NIAC intended the SIEC to be issue specific and focused on mutually agreed upon topics that were relevant across these five sectors.

Under CIPAC, sectors not identified as core to the SIEC would communicate through the relevant SCCs whose members are participating in the SIEC. Other Sector Specific Agencies would communicate directly with those Sector Specific Agencies as members of the NIPP Federal Senior Leadership Council. The NIAC found in its case studies of six sectors a common theme that CEOs and equivalent senior executive decision-makers would continue to participate only if topics are relevant to their industries and their businesses, the level of discussion and decision-making is appropriate for their role and responsibilities, concrete results can be produced, and progress is measurable. The SIEC would not preclude other sectors' participation when those sectors have particular vested interest in an issue it may address.

4. *How could the proposed SIEC best optimize sector representation when some sectors include a very complex and diverse range of stakeholders and participants?*

The work of the SIEC is intended to be primarily issue specific and relevant to the five identified sectors on which the other sectors strategically depend. The NIAC found from its case studies a common theme that “the sectors or industries organize around specific issues that are important to their businesses or operations.”¹¹ The NIAC also found, and acknowledged that:

“Each of the sectors studied have some unique characteristics that affect CEO engagement. The process to initiate engagement will vary substantially across sectors, even within the lifeline sectors, based on diversity of composition, market structure and competitive characteristics, regulatory frameworks, and operational requirements such as dependencies. Flexibility and process for investment decision-making are very different between public and private sectors.”¹²

The NIAC Report's sector case studies identified issues or topics of common interest such as cyber security and catastrophic disaster response and recovery, but also saw differences in perspectives on the need for coordination and collaboration with other sectors at the national level. Some of the sectors are compartmentalized into sub-sectors or modes with very different

¹⁰ NIAC, *Executive Collaboration for the Nation's Strategic Critical Infrastructure*, p. 23

¹¹ NIAC, *Executive Collaboration for the Nation's Strategic Critical Infrastructure*, p. 16

¹² *Ibid.*

concerns, operating norms, and cultures.¹³

Consequently, the NIAC intent for participation on the SIEC from the relevant sectors would be for the relevant Sector Specific Agencies to work through their respective SCCs to identify CEO-level representatives from segments of their industries with the most relevant interest in the issue being addressed, and who would have the ability to influence agreed upon actions to be taken in that segment of their industry. Since the CIPAC houses voluntary engagement across the sectors and with the Federal government, a core sector may choose not to participate if it finds an issue irrelevant to it.

5. *Please provide a list of the questions that were asked of the subject matter experts who were interviewed.*

The scope of the Report was limited to CEO and senior executive level engagement by the tasking. Consequently, the focus of its Working Group's data collection was on perspectives of individuals with subject matter expertise on how senior executive leadership in their sectors are organized and motivated. The rest of the data was collected from various public sources in order to assist the NIAC members to understand the landscapes of the sectors and factors which influence the motivations of CEOs within their sector.

The data collected, both from open source and from subject matter experts, particularly CEOs or equivalent senior executive decision-makers, focused particularly on the lifeline sectors (Electricity for Energy, Transportation, Water, Communications), as a priority, but also on two others (Financial Services and Chemical) to enrich the members' understanding of the differences between sectors. The data was organized and summarized into case studies, and attached in Appendix C of the Report. Report findings were developed from assessing the findings from the case studies.

The Working Group used the following core framing questions for the interviews:

1. What would motivate CEOs or their equivalents in your sector to personally become involved in an issue as a group?
2. What would motivate them to engage with other sectors or the Federal government?
3. What mechanisms, if any, would CEOs use to organize themselves for such an interaction?
4. What decisions or actions would actually be performed by the CEOs and what would be delegated, and to whom?
5. Could you describe a recent example of when such organizing was deemed necessary?

¹³ Ibid,

6. How is engagement with the Federal government or other sectors to address issues organized?
7. Is the engagement as a group representational of the entire sector? Has this broader representation been needed in the past?

These questions were tailored by the working group members conducting the interviews for each sector and the individual interviewed to acquire the most relevant information.

Summary

The NIAC concluded in its final report that the Nation and the critical infrastructure community are really at a defining point. The growth and complexity of threats, whether man-made or natural, and their potential catastrophic consequences, create a sense of increased urgency and more coordinated substantive action. The future will likely get more complicated.

NIAC has recognized in multiple reports that national outcomes on the scale required needs greater focus, speed of action, and effectiveness across the sectors. This result can only be achieved with greater engagement at the most senior levels, particularly to address high-level national priorities. This recognition led to NIAC's recommendation for the formation of a Strategic Infrastructure Executive Council focused on a few strategic sectors on which the majority of the sectors rely.

In its final report, the NIAC considered critical success factors for such a group to be:

1. Five specific sectors, with electricity as the sponsor;
2. Engagement of CEO's or equivalent, senior executive decision-makers, and their government counterparts;
3. A focus on national priorities and policy matters appropriate to the CEO and senior-executive level;
4. A focus on achieving significant measurable outcomes, creating a basis for sustainability; and
5. Provide a budget to provide for experienced and capable staff to support such a high level group to assure progress.

The critical infrastructure sectors, combined, are the foundations of the robustness, resilience, public confidence, and wealth of the country. To better prepare for a likely challenging future, where adversaries seek to create major disruption to the critical infrastructure, the nation would benefit significantly from the establishment of a senior, active, focused group of executives who can take public-private partnership to a new and higher level of effectiveness. Together, we can

take on all threats, whether man-made or natural, and not only survive, but thrive.¹⁴

Acknowledgements

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¹⁴ NIAC, *Executive Collaboration for the Nation's Strategic Critical Infrastructure*, p. 30

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