March 3, 2022

Katherine MacFarland  
National Institute of Standards and Technology  
U.S. Department of Commerce  
100 Bureau Drive, Stop 2000  
Gaithersburg, MD  20899

Dear Ms. MacFarland:


The cybersecurity resolution recognizes the importance of the National Institute for Standards and Technology (NIST) and its role in facilitating effective, consistent, and risk-based decisionmaking in government and industry. Western Governors urge government and industry to run real-world simulations of attacks on critical infrastructure to prepare for potential threats. In the energy resolution, Western Governors advocate for securing the United States' energy supply and systems and safeguarding those systems against cybersecurity risks.

As NIST takes action to improve its cybersecurity resources, Western Governors encourage your consideration of the priorities and recommendations highlighted in these resolutions. Thank you for your attention to this matter, and please do not hesitate to contact us if we may be of assistance as you contemplate how to strengthen our nation’s cybersecurity. In the meantime, with warm regards and best wishes, I am

Respectfully,

James D. Ogsbury  
Executive Director

Attachments
A. **BACKGROUND**

1. In the age of automation, digitization, big data, artificial intelligence, and machine-to-machine learning, the United States’ capabilities to prevent, detect and respond to cyberattacks are of ever-growing importance to our society. The cybersecurity of our nation is an all-of-government and industry-wide endeavor.

2. Aging information technology (IT) infrastructure and systems pose serious cybersecurity risks and increase vulnerabilities for government and organizations. Due to the longstanding financial and national security implications of prior cybersecurity breaches resulting in data theft and other adverse outcomes, modernizing these systems to help prevent successful cyberattacks and better safeguard our data is imperative.

3. The COVID-19 pandemic has transformed society and accelerated the shift to a virtual environment, further increasing vulnerabilities across systems as threat actors become more complex and widespread. Ransomware attacks, a type of malicious software attack that threatens to publish sensitive information or impedes access to data or computer systems until the victim pays a ransom to the attacker, have grown by 148 percent due to the rise in remote activities. These attacks can shut down public and private sector operations, posing particular challenges to critical infrastructure functions.

4. Cybersecurity is especially imperative for critical infrastructure, which includes the nation’s electric grid, energy resource supply and delivery chains, finance, communications, election systems, the chemical industry, commercial facilities, critical manufacturing, defense industrial base, emergency services, food and agriculture, government facilities, health and public health, information technology, transportation, and water and wastewater systems. Large-scale cyber incidents, including the SolarWinds and Colonial Pipeline attacks, demonstrate the risk cybercrime now presents to national security.

5. Addressing cybersecurity needs across critical infrastructure sectors is further complicated by the increasing interdependency and interconnectedness of our nation’s data systems to a myriad of non-critical infrastructure systems and a dynamic threat environment. Effective cybersecurity programs require strategic and functional relationships and information sharing between federal, state and local levels of government, and the public and private sectors.

6. The cybersecurity of their states and the nation is a high priority of Western Governors. State governments are responsible for securing public networks, the state’s digital assets, and citizen data, as well as coordinating their cybersecurity efforts with federal agencies and potentially-affected private entities (e.g., utilities, financial institutions, transportation, and health). Governors lead efforts to plan and implement state cybersecurity programs, respond to cyberattacks, and investigate intrusions.
National Guard cyber protection teams, serving in 59 cyber units, provide invaluable assistance to states across the country with threat assessment and cyber incident response and remediation. Currently, states can mobilize Guard members through State Active Duty (SAD) and Title 32 of the U.S. Code. Supported by state funds, Governors can activate SAD for disasters or homeland defense, although state constitutions or statutes often constrain deployment of the Guard to state emergencies. Title 32 gives Governors the authority to order the Guard to duty, using federal funds, with the approval of the President or the Secretary of Defense. However, this process can create barriers to rapid and nimble action in the face of cyberattacks. While both of these functions are vital resources, potential exists to further leverage the capabilities of the National Guard for the cybersecurity posture of states.

Although state and local governments remain significant targets for cyberattacks, they often lack adequate funding to address these issues and modernize their systems. According to a study by Deloitte and the National Association of State Chief Information Officers, state cybersecurity budgets comprise less than 3 percent of their overall IT budgets.

Prior to the passage of Public Law 117-58, the Infrastructure Investment and Jobs Act, the Homeland Security Grant Program was the primary federal mechanism to provide cybersecurity funding to state, local, territorial, and Tribal governments. Over the years, less than 4 percent of that funding was allocated to cybersecurity. Such low levels of funding have been insufficient for states to meet their pressing, and rapidly growing, cyber security needs. The Infrastructure Investment and Jobs Act sought to address this issue by establishing a much-needed standalone cybersecurity grant program for state and local governments, marking a huge increase in federal support for state and local cybersecurity efforts.

The $1 billion program will be administered by the Federal Emergency Management Agency (FEMA) for four years, with the Cybersecurity and Infrastructure Security Agency (CISA) serving in an advisory role. Funding will be distributed to states, tribes, and territories, who must allocate about 80 percent to their localities. States must also meet varying match requirements to share the financial burden and account for cybersecurity costs in their budgets.

State election systems remain targets of foreign interference. As Governors, we remain committed to protecting our states’ election systems. There is nothing more fundamental to the enduring success of our American democracy, and we take seriously our responsibility to protect the integrity and security of our elections. This is an imminent national security threat that transcends party lines. This is a matter of protecting and preserving fair elections – the underpinning of our democracy.

The Office of Management and Budget and Department of Homeland Security May 2018 Federal Cybersecurity Risk Determination Report and Action Plan concluded that 71 of 96 federal agencies are at risk or high risk of cyber intrusions. It also determined that federal agencies are not equipped to determine how threat actors seek to gain access to their information. This deficiency results in ineffective allocations of the agencies’ limited cyber resources.
13. Currently, there is a severe deficit of cyber workers, especially in government. Our nation cannot defend itself without a well-trained, experienced cyber workforce. The public sector must dedicate resources to “K through gray” cybersecurity education, training, work-based learning and apprenticeships, and recruitment programs and encourage the private sector to do the same through effective policy.

14. While investments in workforce development and human capital are a key component in addressing workforce shortages, states can leverage other tools to meet the scale of these challenges. Technology and innovation will be needed to alleviate workforce strains and keep pace with a wide range of attacks while also reducing burdens associated with operational functions.

B. GOVERNORS’ POLICY STATEMENT

1. Western Governors urge Congress to improve coordination of congressional oversight and legislative activity on cybersecurity, including by reducing the number of committees in Congress that have jurisdiction over this issue.

2. Western Governors support modernizing our systems to be more resilient to minimize vulnerabilities and protect against unauthorized access to information and data theft. We request that FEMA and CISA work collaboratively with Governors in executing the newly created state and local cybersecurity grant program to ensure the funds are administered in a flexible and measurable manner to all states, Tribes, and territories. Designated, flexible, and measurable cybersecurity funding would help ensure that states, Tribes, and territories have resources to build resilient systems and meet growing cybersecurity challenges.

3. The federal government has a responsibility to provide adequate funding for states to meet election security needs. Western Governors encourage Congress and the Administration to work cooperatively with states in developing election security legislation and mandates, and to fully fund implementation.

4. Federal agencies must engage in early, meaningful, substantive, and ongoing consultation with Governors or their designees on all aspects of cybersecurity. Western Governors advise the federal government to clearly define the roles for state representatives in CISA’s recently established Joint Cyber Defense Collaborative.

5. Western Governors recommend that the federal government continue the DHS State, Local, Tribal, and Territorial Engagement Program, which provides cybersecurity risk briefings and resources to Governors and other officials. The Governors also support CISA Central, with which state chief information officers regularly interact.

6. The federal government must continue to clarify the roles and responsibilities of federal agencies in preventing, preparing for, and responding to cyberattacks. Centralized authority, points of contact, and formalized communication pathways are necessary to address increasingly complex threats. In addition, these pathways must occur at each level within government and other organizations.

7. The federal government must also improve agency coordination to use often-constrained security resources more efficiently and harmonize disparate regulations that put an
unnecessary burden on state governments. Western Governors urge Congress to provide appropriations for the Office of the National Cyber Director commensurate with the importance of the office’s position in leading federal coordination efforts.

8. The National Institute for Standards and Technology (NIST) Cybersecurity Framework and other standards can facilitate effective, consistent, and risk-based decision making in government and industry. Real-world simulations of attacks on critical infrastructure are essential to prepare our nation for potential threats.

9. The federal government should build a stronger international framework for cybercrime and use the full range of economic tools, including travel and financial sanctions, to deter cyberattacks organized, supported, or harbored by nation-states.

10. Western Governors recognize the need for states, Tribes, and territories to work together to address gaps or vulnerabilities in these systems to reduce disruptions. The public sector, particularly the federal government, must take steps to mitigate global supply chain and national critical infrastructure risks (e.g. ransomware) in collaboration with the private sector.

11. Western Governors implore Congress and the Administration to reduce bureaucratic burdens and change restrictive guidance related to deploying the National Guard under USC Title 32 for cybersecurity prevention, detection, and response activities. Clarifying the use of the National Guard for these purposes and streamlining the approval process would improve state capacity to confront cyberattacks, contain threats, and help protect neighboring jurisdictions. Western Governors also support efforts to develop civilian cybersecurity reserves, which help alleviate workforce shortages and augment National Guard forces.

12. The Administration should propose, and Congress should provide, long-term authorization and sufficient appropriations for high-quality cybersecurity education and workforce development programs to grow and sustain the cybersecurity workforce, including those that target underrepresented populations, those that include rotational components to retain personnel, and work-based learning opportunities such as apprenticeships. The federal government should also expand the CyberCorps: Scholarship for Service program and continue to support educational initiatives, such as NIST’s Initiative for Cybersecurity Education and National Centers of Academic Excellence in Cyber Defense.

13. Government and industry should increase the cybersecurity awareness of government and private employees through training and education. Western Governors encourage the federal government to develop a national cybersecurity literacy and awareness campaign to educate citizens about how to stay safe online and prevent effective cyberattacks.

14. Western Governors support incentives for the creation of and participation in programs that encourage information sharing across all levels government, industry verticals, and regions. We also support other policies that incentivize the private sector to improve cybersecurity and share information regarding cyber threats as early as possible, including policies to improve access to information or create common standards for information-sharing. The federal government should emphasize the benefits of information sharing, while alleviating private sector concerns with this essential communication. The federal
government and states should continue to investigate liability protections, such as safe harbor provisions, for entities that report cyber intrusions.

15. Our nation requires innovation in detecting, preventing, and responding to continually evolving cyber threats. More research is required to understand the use of blockchain and encryption by perpetrators and its utility for defense against cyber threats, and address vulnerabilities of other emerging technologies, including connected vehicles and Internet of Things devices. The federal government should provide funding and technical assistance for these and other types of cybersecurity research and development.

C. **GOVERNORS’ MANAGEMENT DIRECTIVE**

1. The Governors direct WGA staff to work with congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.

2. Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

*This resolution will expire in December 2024. Western Governors enact new policy resolutions and amend existing resolutions on a semiannual basis. Please consult [http://www.westgov.org/resolutions](http://www.westgov.org/resolutions) for the most current copy of a resolution and a list of all current WGA policy resolutions.*
A. **BACKGROUND**

1. Energy policy and the development of sustainable energy resources are major priorities for every Western Governor.

2. Western Governors recognize that approaches to energy use and development vary among our states and territories. However, the Governors remain committed to the development of policies and utilization of state energy endowments that result in sustainable practices that can benefit citizens, the region, the nation, and the world.

3. Electricity generation and delivery systems are undergoing rapid, significant change across the West. The increasing integration of renewable energy and distributed energy resources, electrification of vehicles and buildings, and retirement of traditional energy generating assets are all contributing to fundamental shifts in the electric sector. Several western states have accelerated these developments by enacting legislation to create targets or deadlines to further support renewable energy.

4. In addition, some energy systems face heightened threats from digital and physical sources, including wildfires, severe storms, heat waves, droughts, and other extreme weather events. Ensuring the reliability of energy generation and delivery systems despite these threats is a priority of every Western Governor.

5. Western states and communities are served by a diverse mix of electricity providers. Investor-owned utilities, public power utilities, and rural electric cooperatives all serve an invaluable role in delivering reliable, affordable power across the West. These electricity providers are characterized by differences in federal and state oversight, governance structures, capital assets, and geographic service territories.

6. The presence of federal lands affects energy projects and infrastructure deployment across the West. Planning, permitting, and siting energy generating assets and transmission and pipeline infrastructure can require close coordination between states, private developers, utilities, and one or more federal agencies. Western Governors are committed to working with federal agencies to create an effective state-federal partnership in energy development, land management, and environmental protection.

7. Western energy production is indispensable to meeting national energy demands. Because of this, the West is in a strong position to lead the development of energy systems that make the best use of land and resources and balance technical, economic, environmental and cultural considerations. The West provides a diverse range of energy resources:

   a. Western states have the vast majority of high-yield geothermal energy capacity in the United States.
b. Western states supply the majority of non-federal United States petroleum.

c. Western states are at the forefront of unconventional natural gas production and produce the majority of the nation’s natural gas. Natural gas currently accounts for approximately 40 percent of the nation’s electricity generation mix.

d. The West produces the largest output of hydropower in the nation.

e. Western states have the largest contiguous areas of land-based wind power resources in the nation and have over two-thirds of the nation’s installed capacity. In addition, the Pacific Ocean offers some of the best offshore wind resources in U.S. waters.

f. The West has some of the highest-identified solar energy resource areas in the country and the majority of installed solar capacity.

g. Western states produce the largest portion of coal in the United States.

h. The West has the largest contiguous areas of high-yield biomass energy resource potential in the nation.

i. Western states are uniquely situated to produce low carbon intensity, clean hydrogen to facilitate greater economic development and decarbonization efforts.

j. Western states have conventional nuclear power generation facilities, produce all domestic uranium, and are at the forefront of advanced nuclear reactor technology development.

8. Western states are also leading the way in the development and deployment of innovative energy storage technologies. Utilities across the West have installed a range of battery technologies to improve grid function, flexibility, and resilience.

9. Western states and Pacific territories have the resources to drive job creation and economic development through broad growth in the energy industry.

10. The Merchant Marine Act of 1920 has prevented certain noncontiguous states and territories from being supplied with domestically produced energy commodities.

B. GOVERNORS’ POLICY STATEMENT

Governors’ Energy Priorities

1. Western Governors recognize the following as energy policy priorities for the West:

   a. Secure the United States’ energy supply and systems, and safeguard against risks to cybersecurity and physical security.

   b. Ensure energy is clean, affordable, equitable, and reliable by providing a balanced portfolio of resources.
c. Increase energy efficiency associated with electricity, natural gas, and other energy sources and uses to enhance energy affordability and to effectively meet environmental goals.

d. Advance efficient environmental review, siting, and permitting processes that facilitate clean energy development and the improvement and construction of necessary energy infrastructure, while ensuring environmental and natural resource protection.

e. Improve the United States’ electric grid’s reliability and resiliency.

f. Protect western wildlife, natural resources, and the environment, including clean air and clean water, and reduce greenhouse gas emissions.

g. Make the West a leader in energy education, technology development, research, and innovation.

h. Utilize an all-of-the-above approach to energy development and use in the West, while protecting the environment, wildlife, and natural resources, and reducing emissions.

**Grid Modernization and Resilience**

2. A robust, resilient, and well-maintained energy delivery system is vital to the economy and quality of life in the West. Grid infrastructure in the West faces potential disruptions due to natural disasters, particularly wildfires, as well as growing cyber threat landscape. Increased grid threats due to wildfires and extreme weather events highlight the need to use and develop energy systems that are both reliable and combat climate change. Upgrades to transmission and distribution infrastructure, including information technology systems, are needed to properly address these risk factors, as well as anticipated increased electricity demand. Coordination between electricity providers and states in energy markets can lead to cost-effective energy for ratepayers and leverage regional resources.

3. Transmission infrastructure in western states often crosses one or multiple federal lands jurisdictions. In these situations, close coordination between states, utilities, and federal agencies is needed to ensure that projects are planned, permitted, and sited in a timely, efficient manner. Western Governors encourage federal agencies to streamline project-permitting reviews to minimize timelines without compromising environmental and natural resource protection or states’ roles in those processes.

4. Western Governors encourage Congress to provide federal agencies, particularly the Bureau of Land Management (BLM), the Environmental Protection Agency, the Department of Energy (DOE), the Federal Energy Regulatory Commission, U.S. Forest Service (USFS), Bureau of Ocean Energy Management, and U.S. Fish and Wildlife Service with additional support to enhance staff and resource capacity to conduct environmental review and permitting activities associated with transmission infrastructure.

5. Western Governors recommend federal agencies leverage designated West-wide Energy Corridors to support the effective and efficient permitting and siting of energy infrastructure assets. Where applicable, Western Governors encourage the BLM and USFS to integrate designated corridor specifications into local land use plans.
6. Western Governors believe clear, coordinated and consistent wildfire mitigation strategies including application of federal vegetation management practices is integral to maintaining the health of western forests, preventing dangerous and damaging wildfires, and maintaining grid reliability. The Governors support effective and efficient cross-jurisdictional coordination that enables vegetation management for federal transmission rights-of-way.

Innovation and Technology

7. Western Governors encourage innovation and application of energy storage, including battery, hydrogen, pumped hydropower, and compressed air technologies, where cost-effective.

8. The U.S. has the opportunity to continue global leadership in carbon capture and storage (CCUS) research and technology development, while further deploying CCUS technologies, where cost-effective, that provide financial benefits to our nation’s entire value chain.

9. The President and Congress should consider federal incentives to expand cost-effective deployment of carbon dioxide (CO2) capture at power plants and other industrial sources.

10. Federal policies aimed to limit CO2 emissions should promote, and not impede, development and deployment of CO2 capture and commoditization. Federal regulations should allow states to create programs tailored to individual state needs, industries and economies and consider permanent CO2 storage that results from enhanced oil recovery in meeting federal regulatory objectives.

11. Western Governors are committed to considering advanced and small modular reactors as an energy resource.

12. Western Governors are committed to developing regional hydrogen hubs to spur economic development and add more clean energy sources to the region’s resource mix.

13. The developing floating offshore wind industry presents a strong economic and sustainable energy generation opportunity for the West. Western states can work collectively, and in consultation with Tribal governments and in coordination with stakeholders, to address workforce, economic, infrastructure, social, environmental, and manufacturing challenges associated with offshore wind planning, siting, and deployment.

14. Western Governors commend efforts by the United States Geological Survey and state geological surveys to identify potential, critical minerals deposits for alternative energy technologies and other consumer products vital to modern society.

15. Governors also support development of emerging tools and technologies that address barriers to mineral supply chain reliability, including technologies that help recycle or reuse existing critical mineral resources for use in electric vehicles and other clean energy technologies.

16. Western Governors are committed to leveraging the vast expertise in the West’s industry, academic institutions, and national laboratories to make the region an international hub for new energy technology research and development, as well as energy education.
17. Western Governors encourage Congress and DOE to support and fund research, development, demonstration, and deployment of advanced energy technologies.

18. Western Governors support the creation of public-private research and development partnerships among industry, academia, the national labs, and federal agencies to identify promising new technologies, including energy efficiency technologies that advance clean energy with reduced environmental impacts.

**Economic and Workforce Development**

19. Western Governors and states are committed to encouraging training and education in energy-related fields and ensuring there is an adequate workforce operating under the highest safety standards.

20. Many western states and communities have been affected by localized job losses due to changes in the energy sector and the closure of coal power plants. Western Governors and states are working diligently to facilitate the creation of employment opportunities for displaced energy sector workers.

21. Western Governors offer their support for the U.S. Department of Agriculture (USDA) Rural Energy for America program, which has benefited farmers, ranchers and rural businesses that are often underserved by other federal energy efforts.

22. Western Governors support funding and long-term authorization for the State Energy Program (SEP), Weatherization Assistance Program (WAP), and Low-Income Home Energy Assistance Program (LIHEAP).

23. Western Governors support legislative measures that promote flexibility for rural electric cooperatives to refinance or adjust loans secured through the USDA Rural Utilities Service.

24. Western Governors support increasing the development and use of energy storage and low- and zero-emissions vehicles and associated infrastructure. WGA's Electric Vehicles Roadmap Initiative Report provides valuable insights on strategies to effectively integrate electric vehicle charging equipment with local grid infrastructure.

25. Western Governors call on the federal government to lift a barrier to domestic free trade between the contiguous United States and the noncontiguous states and territories by the Merchant Marine Act of 1920 by allowing those jurisdictions to receive energy commodities produced in the mainland but transported by foreign vessels, should those jurisdictions, and the jurisdictions whose ports are being used to ship these materials, desire it.

26. Redundant federal regulation of energy development, transport, and use is not required where sufficient state or territorial regulations exist. Existing state authority should not be replaced or impeded by Congress or federal agencies. Where additional regulations are necessary, federal agencies should consult and coordinate with states and tribes to ensure collaboration and understanding of unique circumstances within individual states and tribal nations.
C. **GOVERNORS' MANAGEMENT DIRECTIVE**

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