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February 12, 2019

The Honorable Lisa Murkowski  
Chairman  
Committee on Energy and Natural Resources  
U.S. Senate  
304 Dirksen Senate Building  
Washington, D.C. 20510

The Honorable Joe Manchin  
Ranking Member  
Committee on Energy and Natural Resources  
U.S. Senate  
304 Dirksen Senate Building  
Washington, D.C. 20510

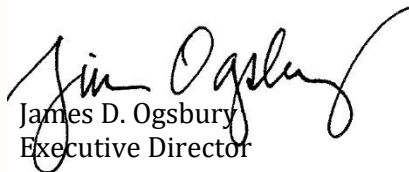
Dear Chairman Murkowski and Ranking Member Manchin:

Cybersecurity – including of the electric grid and other energy infrastructure – is a top priority of Western Governors. Thank you for examining this important topic during your hearing on the Status and Outlook for Cybersecurity Efforts in the Energy Industry on February 14, 2019. To inform the Committee’s consideration of this subject, I request that you include the following attachments in the permanent record of the hearing:

- WGA Policy Resolution [2019-02, Cybersecurity](#); and
- WGA Policy Resolution [2018-04, Energy in the West](#), and the Governors’ [Energy Vision for the West](#).

Thank you for your consideration of this request.

Respectfully,



James D. Ogsbury  
Executive Director

Attachments



## Policy Resolution 2019-02

### Cybersecurity

#### **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. 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, healthcare and public health, information technology, transportation, and water and wastewater systems.
3. Addressing cybersecurity needs across critical infrastructure sectors is further complicated by the increasing interdependency and interconnectedness of our nation's data systems to 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.
4. 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.
5. 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.
6. The Office of Management and Budget and Department of Homeland Security (DHS) 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.
7. 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 cybersecurity education, training, and recruitment programs and encourage the private sector to do the same through effective policy.

## **B. GOVERNORS' POLICY STATEMENT**

1. Western Governors urge Congress to improve coordination of congressional oversight and legislative activity on cybersecurity. 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.
2. Federal agencies must engage in early, meaningful, substantive, and ongoing consultation with Governors or their designees on all aspects of cybersecurity. The federal government must also 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.
3. The increasing number and inconsistency of federal security regulations puts an unnecessary burden on state governments and is an inefficient use of often-constrained security resources. The federal government should establish a working group with representatives from states and federal agencies, as well as restore the position of the White House cybersecurity coordinator, to harmonize disparate agency regulations.
4. 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 DHS's Office of Cybersecurity and Communications, with which state chief information officers regularly interact.
5. 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.
6. The federal government should use the full range of economic tools, including travel and financial sanctions, to deter cyberattacks organized or supported by nation-states.
7. The public and private sectors must take steps to mitigate global supply chain risks (e.g. installation of malicious software or hardware). Government and industry should also increase the cybersecurity awareness of government and private employees through training and education.
8. 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. The federal government should also expand the CyberCorp: 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.

9. Western Governors support 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.
10. 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.

*Western Governors enact new policy resolutions and amend existing resolutions on a bi-annual basis. Please consult [westgov.org/resolutions](http://westgov.org/resolutions) for the most current copy of a resolution and a list of all current WGA policy resolutions.*



## Western Governors' Association Policy Resolution 2018-04

### *Energy in the West*

#### **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, territories, and flag islands. However, the Governors remain committed to the development of policies and utilization of state energy endowments that result in the maximum benefit for their citizens, the region, and the nation.
3. Western energy production is indispensable to meeting national energy demands. The West is the energy breadbasket of the United States:
  - a. Western states have all high-yield geothermal energy capacity in the continental 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.
  - d. The Pacific Northwest produces the largest output of hydropower in the nation.
  - e. Western states have the largest contiguous areas of wind power resources in the nation.
  - f. The Southwest has some of the highest-identified solar energy resource areas in the United States.
  - g. Western states produce the largest portion of coal in the United States, which is the fuel that constitutes the largest share of the national electricity generation mix.
  - h. The West has the largest contiguous areas of high-yield biomass energy resource potential in the nation.
  - i. Western states have nuclear power generation facilities and produce all domestic uranium.
4. Western states, Pacific territories, and flag islands have the resources to drive job creation and economic development through broad growth in the energy industry.

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

**B. GOVERNORS' POLICY STATEMENT**

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, and reliable by providing a balanced portfolio of renewable, non-traditional, and traditional 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 energy development and the improvement and construction of necessary electric grid (transmission and distribution) and pipeline 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 strive to 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.
2. Western Governors support increasing the development and use of energy storage, alternative transportation fuels, and alternative vehicles.
3. Western Governors call on the federal government to lift a barrier to domestic free trade between the contiguous United States and the noncontiguous states, territories and U.S. flag islands 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.
4. Redundant federal regulation of energy development, transport, and use is not required where sufficient state, territorial, or flag island regulations exist. Existing state authority should not be replaced or impeded by Congress or federal agencies.

**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. The Governors also direct WGA staff to consult with the Western Interstate Energy Board to recommend updates to the 10-Year Energy Vision that provide detail on the Governors' energy policy objectives outlined in this resolution.
3. 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.

Western Governors enact new policy resolutions and amend existing resolutions on a biannual basis. Please consult [www.westgov.org/policies](http://www.westgov.org/policies) for the most current copy of a resolution and a list of all current WGA policy resolutions.



## Energy Vision for the West

### Introduction

The resource-rich West supplies a majority of the country's energy resources and electric power. The United States is currently projected to become a net energy exporter within five years. The increase in natural gas developed in the West, coupled with increased investment in renewable and alternative energy sources, have positioned the region and its Governors to play a central role in the nation's economy and energy policy.

The West's vast energy resources and the Governors' role in the development of energy policy underscores the value of a regional energy policy, the *Energy Vision for the West*. This policy does not impede states or territories from approaching energy choice and industry growth based on their own resource endowments and policies. It illustrates that Western Governors have coalesced around common issues and specific goals, despite diverse geography, resources, and politics. The *Energy Vision for the West* elaborates on the Governors' objectives set forth in WGA Policy Resolution [2018-04](#), *Energy in the West*.

Western Governors support a comprehensive energy portfolio for the West to ensure that energy is clean, affordable, and reliable. They are also committed to energy policies that promote economic growth and protect the environment. This approach facilitates a strong economy and jobs across a variety of professions, skill sets, and educations.

This approach also recognizes that there are challenges and opportunities associated with every type of energy resource and use, the costs and benefits of which must be considered in policymaking. One such opportunity – and challenge – is creating an effective state-federal partnership in energy development, lands management, and environmental protection. This regional policy is a guide for realizing opportunities to advance the West as the nation's principal energy provider and a leader in energy innovation and effective policy.

### **Goal 1: Secure the United States' energy supply and systems, and safeguard against risks to cybersecurity and physical security.**

Addressing threats to the nation's energy systems and resources is a high priority of Western Governors. Coordination between states, the federal government, and the private sector on energy emergency planning and response is vital to addressing physical and cybersecurity impacts on the West's energy systems and resources. To this end, the Governors establish the following objectives:

- Work with the Department of Defense to meet its national security mission by ensuring safe and secure onsite and off-site electricity generation for key defense installations.
- Continue to reduce reliance on non-North American oil imports from unstable foreign sources through individualized state-by-state solutions, such as increasing North American production, improving fuel efficiency, and developing renewable and alternative fuels.



- Ensure there is sufficient domestic energy supply, including domestic renewable electric generation, to meet existing and new market demand.
- Identify security and other vulnerabilities of energy infrastructure and create programs and standards to defend infrastructure from cyber and physical attacks, as well as natural disasters.
- Encourage effective relationships between state agencies, federal agencies, public utilities, and the private sector to prevent and prepare for risks to the region's energy supply and systems, as well as to respond to and recover from disruptions.
- Partner with the federal government to ensure the provision of adequate funding and access to resources for state emergency planning, response, and recovery.
- Expand, upgrade, and secure transmission and pipeline infrastructure, as well as ensure that all federal pipeline safety measures are efficiently implemented.

**Goal 2: Ensure energy is clean, affordable and reliable by providing a balanced portfolio of renewable, non-traditional and traditional resources.**

Western Governors believe that a balanced energy portfolio should consist of energy sources that are clean, affordable and reliable, that maintain system reliability, and limit rapid rate increases. These resources also require the maintenance and expansion of transmission and distribution infrastructure. To this end, the Governors establish the following objectives:

- Recognize the importance of western renewable (wind, solar, biomass, biofuels, geothermal, hydropower), nuclear, coal and natural gas resources, and the generation facilities that utilize those resources.
- Adapt utility regulation to changing markets, technologies, and resources.
- Encourage the addition of renewable, low-carbon, and clean generation, including utility-scale and distributed generation.
- Promote, advance and fund the evolution of new technologies, including carbon capture and advancements in renewable energy.
- Maintain the Rural Energy for America (REAP) program, which has benefited farmers, ranchers and rural businesses that are often underserved by other federal energy efforts.

**Goal 3: Increase energy efficiency associated with electricity, natural gas, and other energy sources and use to enhance energy affordability and to effectively meet environmental goals.**

Eliminating waste and using resources wisely are cornerstones of a sound energy strategy. State and local governments, utilities, households, and businesses are currently realizing the economic and other benefits of energy efficiency, but there are still substantial gains to be made. To this end, the Governors establish the following objectives:

- Prioritize energy efficiency associated with electricity, natural gas, and vehicle transportation.

- Enhance utility rate designs, including time-varying rates, and cost-effective utility energy efficiency programs that deliver electricity and natural gas savings to consumers.
- Support energy efficiency programs that provide incentives and rebates to lower the incremental up-front costs of energy efficiency technologies; Energy Service Company (ESCO) programs; and where successful, utility ratepayer-funded energy efficiency programs, including the use of rate decoupling.
- Encourage the retrofit of residential and commercial buildings and improve the energy efficiency of new buildings, such as through building energy codes and programs that stimulate energy efficient construction.
- Decrease energy intensity using tools such as combined heat and power and waste heat to power systems.
- Incorporate systems strategies to improve efficiency throughout the building lifecycle and to improve grid connectivity, including energy systems that enable two-way, automated utility-to-customer communications to facilitate demand response programs.
- Maintain funding and support long-term authorization for the State Energy Program (SEP), Weatherization Assistance Program (WAP), and Low-Income Home Energy Assistance Program (LIHEAP).

**Goal 4: Advance efficient environmental review, siting and permitting processes that facilitate energy development and the improvement and construction of necessary electric grid (transmission and distribution) and pipeline infrastructure, while ensuring environmental and natural resource protection.**

Responsible energy development and a robust, well maintained energy delivery system are vital to the economy and quality of life in the West. To this end, the Governors establish the following objectives:

- Encourage responsible leasing and development of energy resources and infrastructure.
- Create a clear and transparent process for regulation and permitting, coordinated among well-trained and adequately funded federal, state and local agencies.
- Streamline project-permitting reviews to minimize timelines, without compromising environmental and natural resource protection or states' roles in those processes.
- Maintain state and local decision-making authority over transmission line siting and permitting.
- Encourage regional transmission planning organizations to conduct interconnection-wide planning with the full participation of the states and with consideration of state energy policies.
- Create functional partnerships among states, federal agencies, tribal governments and local jurisdictions to solve conflicts that hinder energy infrastructure and resource development.

- Increase cooperation on interstate projects through interstate compacts and other tools.
- In the West-wide energy corridor process, ask federal agencies to guarantee: ongoing, substantive, and meaningful state consultation; consideration of state plans, processes, priorities, and policies; and integration of other streamlining efforts.

**Goal 5: Improve the United States electric grid’s reliability and resiliency.**

Changes in energy generation, distribution, and management are transforming the nation’s electric grid. But these advancements also highlight the need for grid level investment, along with associated updates for electricity regulation and policy. To this end, the Governors establish the following objectives:

- Protect state authority to determine the type and amount of new generation facilities and the programs used to procure new generation, recognizing that each state has their own priorities and portfolios.
- Protect state authority to encourage continued operation of existing generation facilities through long-term contracts, retail utility contracting, or other incentives.
- Encourage regional reliability organizations, utilities, state agencies and public utility commissions to assess the provision of essential reliability services under future scenarios that include a changing resource mix in the West.
- Support grid operator situational awareness of distributed energy resources by promoting coordination between utilities and distributed energy resource developers.
- Preserve areas of exclusive state authority regarding distributed energy resources, including storage, and improve utility distribution systems planning for distributed energy resources to enhance grid reliability and resilience.
- Improve understanding of grid resources and services and the need for new power production facilities and transmission/distribution infrastructure through data, analysis, and coordination.
- Prepare for potential disruptions to the grid from wildfires, flooding, earthquakes, tornadoes, cyberattacks and other disturbances and emergencies, as well as increase the grid’s ability to withstand and reduce the magnitude of such events.
- Enable utilities to take necessary actions to enhance grid reliability and reduce the threat of wildfires to and from electric transmission and distribution rights-of-way.

**Goal 6: Protect western wildlife, natural resources and the environment, including clean air and clean water, and strive to reduce greenhouse gas emissions.**

Western states have long assumed a stewardship role for the natural environment and have worked across state lines to protect air, land, wildlife and water. Western Governors are committed to ensuring that energy development is done in an environmentally responsible manner. To this end, the Governors establish the following objectives:

- Promote energy technologies and sources that lower emissions.
- Continue advancing air and water quality improvements and plans in each state and across state lines.
- Foster environmental cooperation that: protects the state-federal partnership; provides for sustainable environmental protection; is nimble and flexible; and ensures that state governments play a key role in regulation.
- Acknowledge that a productive economy and responsible development can support environmental protection by providing additional funding and opportunities for public-private partnership.
- Encourage technologies that reduce water consumption, prioritize water consumption for traditional activities (drinking water, agriculture, habitat conservation/restoration), and contribute to the responsible development of new energy resources.
- Achieve a balance between the responsible development of energy projects and wildlife conservation.
- Urge the federal government to identify and approve solutions for the long-term storage and permanent disposal of spent nuclear fuel and nuclear waste.
- Encourage the development and deployment of a full range of technologies that offer the potential for cost-effective reductions in greenhouse gas emissions from energy production and use, including carbon capture and storage, energy efficiency, zero emissions generation sources, and other emerging options.

**Goal 7: Make the West a leader in energy education, technology development, research, and innovation.**

Effective energy policy is facilitated by an understanding of a common set of impartial facts and scientific evidence. Furthermore, the advancement of technology will play a critical role in realizing a clean energy future. To this end, the Governors establish the following objectives:

- Leverage 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.
- Encourage Congress and the Department of Energy to support and fund research, development, demonstration, and deployment of advanced energy technologies.
- Create 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.
- Encourage market operators, reliability organizations, and utilities to appropriately share electric system operational data with researchers, educators, and entrepreneurs to promote

electric system innovation and technology development, while still safeguarding against risks to cybersecurity and physical security.

- Encourage training and education in energy-related fields and ensure there is an adequate workforce operating under the highest safety standards.
- Facilitate the creation of employment opportunities for displaced energy sector workers.
- Educate the public regarding: the role of energy in maintaining a high standard of living and quality of life; trade-offs and externalities associated with all types of energy development and consumption; the coexistence of a healthy environment and a thriving economy; and how federal policy on public lands impacts energy and infrastructure development.

**Goal 8: Utilize an all-of-the-above approach to energy development and use in the West, while protecting the environment, wildlife and natural resources.**

A diverse energy portfolio is essential to the provision of clean, affordable, secure, and reliable energy. Western Governors support a comprehensive energy portfolio, including: oil, gas, coal, nuclear, biomass, geothermal, hydropower, solar, wind, and conservation and energy efficiency. To this end, the Governors establish the following objectives:

- Reduce costs and risks for the environmentally sound development of all energy resources.
- Ensure competition in the market for all resources.
- Recognize the growing importance of consumer choice in driving energy policy.
- Support consumer choice of distributed energy resources to achieve affordability, environmental, and other objectives.
- Increase the development and use of alternative transportation fuels and vehicles, including the necessary infrastructure for those vehicles.
- Encourage innovation and application of energy storage, including pumped hydro storage, battery storage, and compressed air energy storage where cost-effective.
- Support the responsible and efficient development and use of traditional and renewable resources.
- Increase the amount of electricity generated from new, retrofitted, or relicensed hydroelectric facilities, including small, irrigation, and flood control hydropower projects.
- Restore financing for the geothermal exploration program financed by the Department of Energy.
- Accelerate the introduction of small modular reactors into the marketplace.