

January 23, 2019

The Honorable Nancy Pelosi  
Speaker  
U.S. House of Representatives

The Honorable Kevin McCarthy  
Minority Leader  
U.S. House of Representatives

The Honorable Mitch McConnell  
Majority Leader  
U.S. Senate

The Honorable Charles E. Schumer  
Democratic Leader  
U.S. Senate

Re: Growing the economy and saving consumers money through advanced energy

Dear Speaker Pelosi, Leader McConnell, Senator Schumer, and Leader McCarthy:

As a national association of businesses that make the energy we use secure, clean, and affordable, Advanced Energy Economy supports policies that enable rapid growth of advanced energy businesses. Advanced energy technologies are strengthening our grid every day. Deployment of these technologies help to both strengthen the reliability as well as resilience of the electric system. Advanced energy is also providing more diverse transportation options as the sector continues to electrify to the benefit of consumers. As you consider legislation in the 116<sup>th</sup> Congress, AEE respectfully requests your consideration of the advanced energy industry's perspective in energy policy discussions, and submits the four key priorities for your consideration:

- 1) Remove regulatory obstacles for advanced energy – particularly in wholesale markets – to lower the cost of energy, grow the economy, and provide environmental benefits
- 2) Support deep electrification of the transportation system
- 3) Accelerate creation of a 21st century electricity system
- 4) Increase market access for corporate buyers

These four priorities can help achieve the broad goals of economic growth, cost savings, and a reliable grid.

**Economic growth:** The \$200 billion advanced energy industry is a strong segment of the American economy, supporting more than 3 million jobs across the country. As the industry continues to grow, there are opportunities to reduce market barriers that prevent advanced energy technologies from deploying fully into the economy.

**Cost savings:** Increasingly, advanced energy resources provide opportunities to save consumers billions of dollars while maintaining the reliability of the grid. Costs have fallen so sharply that in some parts of the country investing in new wind and solar energy projects is more cost-effective than continuing operation (i.e., fuel and maintenance costs) of some

traditional generating resources such as coal and nuclear plants. A recent utility filing by Northern Indiana Public Service found **customers could save \$4 billion by replacing its entire coal fleet** by 2028 with a portfolio of solar, wind, storage, and demand management resources.<sup>1</sup>

**Reliability:** Advanced energy also improves reliability cost-effectively, and provides resilience during extreme weather. During the 2014 Polar Vortex, extreme cold caused onsite **coal piles to freeze, power plant control equipment to fail, and natural gas pipelines to become constrained**. But grid operators were able to turn to demand-side resources and wind energy to keep the lights on during the emergency.<sup>2</sup>

Thank you for your consideration of the priorities of AEE and its members. As a \$200 billion industry representing more than 3 million jobs across the country, we look forward to working with you on policies that can continue to provide secure, clean, and affordable energy options to all Americans.

Sincerely,

Dylan Reed  
Head of Congressional Affairs  
Advanced Energy Economy

Cc:

Members, U.S. House of Representatives Committee on Energy and Commerce  
Members, U.S. House of Representatives Committee on Transportation and Infrastructure  
Members, U.S. House of Representatives Committee on Ways and Means  
Members, U.S. Senate Committee on Energy and Natural Resources  
Members, U.S. Senate Committee on Environment and Public Works  
Members, U.S. Senate Committee on Finance

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<sup>1</sup> <https://blog.aee.net/the-numbers-are-in-and-renewables-are-winning-on-price-alone>

<sup>2</sup> <https://www.utilitydive.com/news/neither-resilience-nor-reliability-can-justify-the-rescue-of-outmoded-power/504182/>

## **POLICY PRIORITIES FOR AN ADVANCED ENERGY FUTURE**

*Submitted to Members of the 116<sup>th</sup> United States Congress*

### **Remove regulatory obstacles for advanced energy**

AEE supports technology-neutral wholesale markets that allow all resources to compete based on price and performance. Competitive wholesale electricity markets, overseen by the Federal Energy Regulatory Commission (FERC), have begun to unlock numerous opportunities for the growth of advanced energy resources, including demand response, energy efficiency resources, and renewables, while other advanced energy technologies – including storage and other distributed energy resources – look to break into these markets as new rules are implemented to allow their participation.

However, despite continuing progress in revising legacy wholesale market rules to accommodate the participation of advanced energy technologies, more work needs to be done. Wholesale market rules continue to sometimes result in barriers to participation of advanced energy technologies. Moreover, the full range of services that advanced energy technologies can provide remain undervalued and, in many cases, uncompensated. Furthermore, in some regions the requirements of the Public Utility Regulatory Policies Act (PURPA) – the federal law that requires utilities to open their markets to participation by renewable energy and cogeneration facilities – have not been fully implemented. Finally, proposals to favor certain technologies (such as existing coal and nuclear plants) with out-of-market payments or tilt the market by designing rules that value only their particular attributes (e.g. onsite fuel) rather than desired operational outcomes (e.g., resilience) threaten to disrupt the progress already made to grow the advanced energy sector.

To further open markets to investment for advanced energy technologies, and ensure that out-of-market actions do not chill that investment, Congress can:

- Oppose out-of-market policies that would preference uneconomic power plants, forcing consumers to pay more for more expensive electricity than they would otherwise, while also undermining competitive market principles.<sup>1</sup>
- Ensure FERC properly oversees Order No. 841 implementation to ensure that barriers to energy storage participation in wholesale markets are fully eliminated.
- Support reducing barriers to grid interconnection facing renewable energy resources, especially those paired with energy storage technologies, and ensure FERC moves forward with implementation of Order No. 845.

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<sup>1</sup> <http://www.brattle.com/news-and-knowledge/news/report-by-brattle-economists-assesses-potential-costs-associated-with-administration-policy-designed-to-prevent-the-retirement-of-all-coal-and-nuclear-plants>

- Encourage FERC to finalize a proposed rule on the participation of distributed energy resources in wholesale markets.<sup>2</sup>
- Support FERC's consideration of new policies to support the development of advanced transmission technology and non-wires alternatives, consistent with the direction of Congress in the Energy Policy Act of 2005.<sup>3</sup>
- Support federal funding for programs to enable greater adoption of advanced energy technologies in wholesale markets, including pilot projects to demonstrate the ability of advanced energy to provide innovative solutions to energy challenges.
- Encourage FERC – whether through policy statements, technical conferences, or additional updates to tariffs – to continue to review of existing barriers to technology-neutral markets that can preclude advanced energy resources from competing on equal footing with traditional resources.
- Pursue proper oversight of the Trump Administration's policies to use the Federal Power Act, Defense Production Act, and any other federal laws to give undue preference to "fuel-secure" power plants in energy markets.<sup>4</sup>
- Consider reforms to PURPA and ensure proper state implementation of the law. While FERC reviews potential opportunities to end abuses of PURPA and update PURPA's implementing regulations to ensure all technologies eligible under the statute can benefit from PURPA, Congress can also ensure that the law continues to encourage competition, promote affordable energy across all states, and allow participation of all advanced energy technologies.

While progress has been made in wholesale electricity markets, we believe continued action by FERC and Congress to allow advanced energy to compete fully in these markets will further lower costs to consumers, increase grid reliability and resilience, and achieve additional environmental benefits all by allowing advanced energy to compete fully in these markets.

## Support deep electrification of the transportation system

Transportation electrification is a transformational trend in the U.S. economy, offering unprecedented choice to consumers and businesses in the way we move people and goods. With the price of batteries falling over 70% since 2010, all major vehicle manufacturers, including the major U.S.-based automakers, are now aggressively developing a full range of electric vehicle (EV) models.<sup>5</sup> In addition to light duty vehicles, commercial fleets including medium- and heavy-duty EVs, transit buses, local delivery trucks and long-haul trucks are also making significant inroads.

The rapid progress of the EV industry has the potential to offer significant benefits to drivers,

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<sup>2</sup> <https://www.federalregister.gov/documents/2018/05/04/2018-09450/distributed-energy-resources-technical-considerations-for-the-bulk-power-system-notice-inviting>

<sup>3</sup> Section 219(b)(3) of the Energy Policy Act of 2005 encouraged the "deployment of transmission technologies and other measures to increase the capacity and efficiency of existing transmission facilities and improve the operation of the facilities."

<sup>4</sup> <https://www.whitehouse.gov/briefings-statements/statement-press-secretary-fuel-secure-power-facilities/>

<sup>5</sup> Bloomberg, 2017: <https://www.bloomberg.com/news/articles/2017-07-06/the-electric-car-revolution-is-accelerating>



consumers, and society as a whole. With lower fueling and maintenance costs, electric vehicles (EVs) have a lower total cost of ownership than gasoline- and diesel-powered vehicles.<sup>6</sup> Beyond the driver, the added volume of electricity flowing through the power grid benefits lowers costs for all ratepayers.

While the EV market continues to grow, Congress can prioritize key initiatives to deepen the electrification of the industry and grow the U.S. EV market by expanding support for key existing federal programs, supporting growth of EV charging infrastructure, and leveraging private capital to invest in new vehicles for localities and consumers.

Maritime and airport electrification are also emerging as a significant global trend. U.S. ports and airports gain an edge on foreign competition when they install ship-to-shore connections and electrify other operations that currently rely on intermittent diesel generators. Maritime ports are modernizing rapidly across the globe, and ships equipped with the latest electrical connection capabilities seek out ports that no longer rely on intermittent diesel. Recent electrification and installations at the ports of Los Angeles and Long Beach – the first and second busiest container ports in the United States – serve as excellent examples of modernization that brings about competitive advantage. In addition, electrification of freight traffic (e.g. trucks) at ports can significantly improve air quality, particularly in disadvantaged communities.

To accelerate and deepen the electrification of the transportation system for EVs, maritime, and airports, Congress should:

- Reform the current tax credit for electric vehicles so that future policy neither penalizes market leaders nor shuts out later arrivals to the EV market, while allowing the credit to sunset once the nascent EV industry has had sufficient time to grow and mature.
- Support efforts to broaden EV adoption into the commercial market, particularly to allow for greater adoption of electrified trucking fleets.
- Continue and increase support for key federal programs supporting EV adoption, including the Low or No Emission Vehicle (Low-No) competitive grants program. This program provides much needed funding to state and local governmental authorities for the purchase or lease of zero-emission transit and school buses.
- Direct DOE and GSA to identify barriers to Federal employee workplace charging. With most federal employees commuting less than 40 miles, smart charging infrastructure investments could be used to incentivize federal employees to buy EVs.
- Direct DOE and GSA to either require or incentivize the use of EVs as part of the U.S. Government Rental Car Program. Rental car companies could be required to bid electric or hybrid electric vehicle options into the central database on a daily basis for federal employees.
- Direct the DOE, GSA and the United States Postal Service (USPS) to evaluate regional deployment of electric vehicles, and identify any related funding barriers.
- Enact policies to leverage private capital to build out charging infrastructure, particularly in priority corridors, and provide zero-interest loans to transit authorities for electric buses to

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<sup>6</sup> Department of Energy, 2018: <https://www.energy.gov/eere/electricvehicles/saving-fuel-and-vehicle-costs>



help save on maintenance costs. While the FAST Act created an opportunity for transit agencies to save money in vehicle purchases through alternative financing mechanisms, further federal support of financing mechanisms can encourage agencies to take advantage of the benefits of these options. For example, transit agencies could lease battery storage systems, allowing them to finance the cost of the batteries through operational savings.

- To drive innovation and foster competition in the transportation electrification space, open charging standards or protocols should be adopted for both front-end and back-end interoperability. An open system also promotes greater transparency of vital data and information, which can be shared with a variety of innovative companies.
- Authorize and fund the DOE's Vehicles Technologies Office to provide competitive grants to states or utilities to ramp up financing for electric vehicle charging infrastructure, especially in typically under-served markets such as low-income communities and government-supported housing. Such grants must be designed to be catalysts for larger scale and longer-term utility investments in programs to accelerate efficient transportation electrification.
- Suggest that any port that receives federal funding consider electrification as part of its modernization efforts (such as ship-to-shore and crane electrification).
- Designate a grant program specifically for port modernization via electrification from the perspective of economic competitiveness, safety, and increased efficiency of operations.

The transportation sector continues to move towards electrification. Congress can pass productive policies to harness this market trend to increase U.S. competitiveness in this sector, enhance our national security by making us less reliant on foreign-sources of fuel, and provide cleaner transportation options to reduce air pollution.

## Accelerate creation of a 21<sup>st</sup> century electricity system

Our energy system is going through a period of transformational change. Evolving consumer preferences, dynamic new technologies and services, dramatically declining prices and the need to replace aging infrastructure are creating new opportunities across the country to modernize the energy sector. Congress has an opportunity to harness the economic power of the advanced energy industry to strengthen the American economy and put the fight for quality jobs at the heart of a vision for the country's energy future.

While the previous sections described specific opportunities that would accelerate our progress toward a 21<sup>st</sup> century electricity system in two specific areas—by removing market barriers in wholesale markets and accelerating electrification of transportation—these policy recommendations are not exhaustive. More should be done across multiple issues and technologies to accelerate the transition and adoption of a 21<sup>st</sup> century electricity system.

Congress can support policies that provides market certainty for businesses, focuses on technology-inclusivity, and allows for all market participants to compete to provide services. Congress should:



- Support key programs through the Department of Energy, including the Office of Energy and Efficiency and Renewable Energy (EERE) and Advanced Research Projects Agency-Energy (ARPA-E).
- Support a tax code that allows for businesses to make investment decisions that produce jobs and grow the economy. Extending tax credits on an annual or bi-annual basis or applying these credits retroactively can create market turmoil by not allowing businesses the certainty they need to invest wisely. We encourage Congress to prioritize market certainty when considering any legislative changes to the tax code.
- Further harmonization of the investment tax credit to include energy storage and reflect innovations in new, high efficiency energy technologies, such as linear generators, to provide parity for early stage technologies.
- Support policies that enable customer installation of resilient, grid islanding capable microgrids that meet a certain emissions standard, including streamlined interconnection to the grid and enact financing options like an investment tax credit.
- Support passage of the Nuclear Energy Leadership Act to promote commercialization of advanced nuclear reactors as well as allow the federal government to pursue up to 40 year power purchase agreements with all advanced energy technologies, including wind, solar, and on-site generation.
- Support increased investments in transmission as a complementary policy to enable greater development of renewable energy.
- Encourage the Department of Energy to take national leadership role in helping all states in adopting best practices for the integration of distributed energy resources
- Reinstate incentives for energy efficiency including Sections 25C (Nonbusiness Energy Property Credit for Existing Homes), 45L (Energy Efficient Home Credit), and 179D (Commercial Building Tax Deduction). These incentives have encouraged investment in highly efficient products to modernize buildings and homes, while supporting an industry with over 2 million jobs across the United States.
- Improve the efficiency and utilization of the production tax credit to provide for the transferability of the credit under IRC Section 45, similar to language found in the new Section 45J and existing Section 45G.

The energy sector is rapidly transitioning to a more innovative system with new technologies improving it every day. States have taken the lead so far in creating a 21<sup>st</sup> century electricity system. Congress should prioritize policies that accelerate the adoption of this system to deliver more affordable energy to consumers, increase the reliability and resilience of the energy grid, and promote cleaner resources to reduce pollution.

## Increase access to advanced energy for large buyers

Large energy users – including Fortune 500 companies, cities and towns, universities, and hospitals – are increasingly seeking opportunities to source their energy needs from advanced energy. AEE facilitates the Advanced Energy Buyers Group (AEBG or Buyers Group), a business-led coalition of large energy users engaging on policies to expand opportunities to procure energy that is secure,



clean, and affordable. Members of the Buyers Group are market leaders and major employers spanning multiple industry segments, including technology, retail, and manufacturing.

The Buyers Group shares a common interest in expanding corporate use of advanced energy resources, such as wind, solar, geothermal, and hydropower; demand-side resources like energy efficiency, demand response, and energy storage; and onsite generation from solar photovoltaics, advanced natural gas turbines, and fuel cells.

Use of advanced energy technologies and services by AEBG members has made their companies more competitive, their operations more resilient, and their footprints more sustainable. AEBG members are among the 71% of Fortune 100 companies and 43% of Fortune 500 companies that have established renewable energy and/or sustainability targets as part of our corporate sustainability commitments.<sup>7</sup> In 2017, members of the Buyers Group totaled over \$1 trillion in revenue and collectively consumed the equivalent of North Dakota's electricity sales and powered our operations from renewable electricity equivalent to the power usage of Delaware.

The AE Buyers Group will share specific policy priorities with Congress separately, and AEE's broader membership supports the principle of ensuring that federal policy seeks to increase market access to advanced energy for corporate purchasers.

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<sup>7</sup> Advanced Energy Economy, *2016 Corporate Advanced Energy Commitments* (December 2016) <https://info.aee.net/growth-in-corporate-advanced-energy-demand-market-benefits-report>.

