

November 2020

The
Solar
Vision
A 100-day agenda



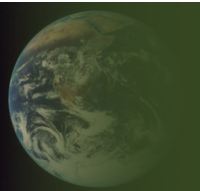
Introduction

The 2020 election will have tremendous consequences for the future of energy and climate policy in the United States. To meet this moment and provide guidance for the incoming Biden administration and new members of Congress, SEIA has prepared a legislative and executive agenda for 2021 and beyond.

This plan envisions scenarios related to leadership in the White House, federal agencies, the House and the Senate. Next year will bring the first new Congress and presidential term in the Solar+ Decade and an opportunity to develop policy frameworks that create hundreds of thousands of jobs and lasting economic prosperity. The new year will also be a pivotal time for the federal government to take steps that increase renewable energy deployment and address climate change. Finally, COVID-19 has brought into sharp relief the need for long-term thinking on workforce development, infrastructure, resilience, equity and economic recovery. The U.S. can address all of these needs by investing in a clean, affordable electricity system.

There is no single policy that can help the U.S. achieve a clean energy future. As such, this document outlines a suite of policies, encompassing both executive and legislative actions, that can put America on a path to 100% clean energy. It is important to note that while a comprehensive federal carbon policy, including stable tax policies and a renewable/clean energy standard, are core components of this agenda, a successful transition to a carbon-free economy will depend on the regulatory changes and infrastructure programs contained in this vision.

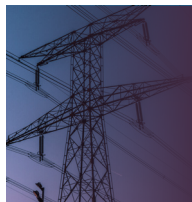
To lay the foundation for a strong clean energy economy that prioritizes equity and environmental justice, the solar industry proposes an agenda organized around three strategic principles:



Achieving Clean Energy Goals & Developing Comprehensive Carbon Policy



Investing in Clean Energy Infrastructure & the Workforce Needed to Build It



Ensuring Markets are Competitive & Remain Open to Clean Energy

Across these focus areas, there are policies and initiatives that can be addressed by Congress and the Executive Branch. This document outlines the proposed policies for each area and immediate steps both branches of government can take to set the U.S. on a path to achieving our long-term goals. Where applicable, we list bills introduced in the 116th Congress that SEIA has supported to help achieve our long-term goals.

Achieving Clean Energy Goals & Developing Comprehensive Carbon Policy

Over the past several years we have seen new urgency to address the effects and causes of climate change. Leaders from both sides of the aisle have offered legislation around carbon pricing, economy-wide mitigation efforts, clean and renewable energy standards, and a host of ways to use the tax code to incentivize climate and energy policies. Solar energy would benefit from many of these initiatives.

President-elect Biden's campaign has released extensive proposals that focus on building clean energy capacity, including solar and wind, as part of broad efforts to address climate change and economic inequities. Many of the priorities outlined in this document are in line with the vision laid out by the Biden campaign, and we look forward to working with the new administration and our bipartisan champions in Congress to advance an ambitious agenda to grow clean energy in America.

Legislative Goals

—○ A tax framework that drives solar deployment (including ITC modifications in light of COVID-19, and longer-term tax policy)

The solar investment tax credit (ITC) is the single most effective current policy available to encourage clean energy deployment. In light of obstacles the industry has faced, such as unexpected tariffs on imported solar cells, modules, and steel racking equipment, the end of the Clean Power Plan, and now the coronavirus pandemic, in addition to the increasingly urgent nature of climate action, the phasedown of the ITC must be delayed and replaced with a long-term extension. In addition, SEIA will continue to advocate for a direct pay or cash grant option for the ITC given the current poor health of the tax equity market and the long-term ramifications of that on the pipeline of solar projects to come.



SEIA will continue to support legislation such as HR 3961/S 2289, the Renewable Energy Extension Act (Thompson/Cook, Cortez Masto) and HR 7491, the Energy Tax Credit Direct Payment Act (Casten)

—○ A meaningful federal carbon policy mechanism

SEIA recognizes that the most effective policy to reduce carbon emissions and ensure competition among energy sources is through accounting for negative externalities with a price on carbon. There have been a variety of carbon pricing proposals put forth in the 116th Congress and before. In addition, there have been many proposals that create either federal renewable energy standards or federal clean energy standards. SEIA has not taken a position on one specific carbon pricing approach but continues to monitor and analyze legislation based on our goal of increasing solar deployment, one of the most cost-effective and rapidly deployable sources of zero-carbon electricity generation.



SEIA has expressed support for RES/CES legislation, such as HR 2597, the Clean Energy Standard Act of 2019 (Lujan), S 1974, the Renewable Electricity Standard Act (Udall) and S 1359, Clean Energy Standard Act of 2019 (Smith)

—○ An Investment Tax Credit for energy storage

To reach and surpass our goal of 20% of electricity generation from solar energy by 2030, The U.S will need to add energy storage to increase the availability of solar as a variable resource. The Investment Tax Credit as currently enacted makes energy storage installations eligible if it is installed at the same time as a solar energy system. With more than 2 million solar installations already installed in the United States, however, retrofits and increased deployment in general are needed.



SEIA supports standalone energy storage systems qualifying for the ITC, through policies like HR 2360/S 1142, the Energy Storage Tax Incentive and Deployment Act (Doyle, Heinrich, Gardner)

—○ Clean energy development on public lands

Encouraging the deployment of solar energy on public lands is a winning strategy both for the solar industry and its workforce and the local communities. A solar installation can bring millions of dollars of investments and local tax revenue to a local community, and in many cases solar can help regenerate agricultural land. SEIA supports the increase of solar development on public lands and policies that localize the benefits of these projects.



SEIA supports HR 3794/S 2666, the Public Land Renewable Energy Development Act (Gosar, McSally)

—○ Federal funding for solar energy research and development

Research and development of solar energy technologies and efficient, low-cost deployment is imperative to the industry moving forward to reach our 20% goal. SEIA supports federal investment in research and development for solar energy technologies and best practices such as perovskite, concentrated solar power, agrivoltaics, and soft costs reduction. With sustained federal funding for research & development, the industry can deliver billions of dollars of returns on this investment and hundreds of thousands of jobs for the American people. SEIA supports fully funding the Department of Energy's Solar Energy Technologies Office and ARPA-E.



SEIA supports HR 3597/S 2668, the Solar Energy Research & Development Act (McAdams/ Fortenberry, Sinema/McSally)

Executive Action

—○ Increase renewable energy deployment on public lands

In concert with efforts from Congress, there is a great deal that the Executive Branch can do to expand clean energy development on public lands. The President should: 1) select a Secretary and Deputy Secretary of the Interior who are committed to responsible development of renewable resources on public and private lands; 2) Direct the Secretary or Director of the Bureau of Land Management to use discretionary authority to solve problems with BLM rental rates due to 2016 leasing rule; and 3) direct the U.S. Army Corps of Engineers to implement a workable approach to Nationwide Permit 12 that allows solar projects to move forward.

—○ Increase solar adoption by federal agencies and facilities

Executive branch departments, agencies and facilities have large electricity footprints and should be investing in clean energy to power their operations. The U.S. government should lead by example and set ambitious goals for renewable energy procurement, including the Department of Defense, which has already recognized the strategic economic and resiliency benefits of solar at military facilities around the globe.

Investing in Clean Energy Infrastructure & the Workforce Needed to Build It

As SEIA laid out in our vision for the Solar+ Decade, the transformation to a clean energy economy will not be limited to increasing electricity generation from clean sources, it will require a holistic approach to infrastructure, transmission, transportation, and many other areas. To create an environment that will allow clean energy sources like solar to flourish, and to build a 21st century electricity grid that prioritizes the needs of average American families, significant investments in our nation's infrastructure are needed. It is critical that this transition to a clean energy economy supports communities that have too often been left behind, and investments in infrastructure and clean energy deployment should be carried out with environmental justice as a core value.

As these transformations take place and both public and private investments in solar energy continue to grow, solar is poised to lead the nation in job creation. More than 200,000 U.S. solar jobs could be created over the next two years alone with the right policies in place. It is critical that these opportunities are available to all Americans, and that solar growth is matched by expanding employment opportunities for disadvantaged and frontline communities. The solar industry is committed to supporting working families through good jobs and a healthy workforce.

Legislative Goals

— ○ Workforce training and development

With an ambitious goal to reach 20% of electricity generation by 2030, the solar industry must scale up and diversify its workforce. Community college and professional training programs exist in many parts of the country. On-the-job training allows solar companies to hire workers who may come from other energy industries or are otherwise nontraditional candidates and can allow employers to tailor the training to the specific needs of the company. This need is specific to the renewable energy industry as one of the fastest-growing industries in the United States and one that will continue to grow given falling prices and a more urgent need to decarbonize our electricity system. SEIA supports federal incentives for the renewable energy industry to hire and train workers new to renewable energy.



SEIA supports HR 1315, the Blue Collar to Green Collar Jobs Development Act (Rush)

— ○ Developing a strong, diverse workforce & supporting a just transition

The solar industry remains committed to providing high-quality jobs that support American families. SEIA recognizes the need to create opportunities within the solar workforce for people of diverse backgrounds, such as race, gender, geographic location, educational background, work history, and veteran status. With a growing workforce, there is a growing need to ensure opportunities are provided for those in marginalized communities, workers with backgrounds in fossil fuel electricity generation, and returning servicemembers. SEIA has shown leadership within our industry by collecting metrics and publishing best practices for the diversity of our workforce. The Department of Energy's Solar Ready Vets program is one of piece of the puzzle to increase the diversity of our workforce.



SEIA supports S 876, the Energy Jobs for our Heroes Act (Duckworth)

—○ Community solar programs and virtual net metering requirements

In addition to broadening and diversifying our workforce, SEIA also believes strongly in broadening the availability and access to solar and its benefits as a customer. Solar provides significant cost savings on energy that can relieve burdens on families and small businesses. However, often the barriers of solar-ready-single-family-homeownership prevent potential customers from accessing the cost saving benefits of solar. Community solar programs have been implemented on the state level across the country and have shown to be successful in extending access to solar to those for whom residential solar is inaccessible. Many companies also offer low-income carveouts for the subscribers of community solar.



SEIA supports HR 5986, the Community Solar Consumer Choice Act (Lujan), which would establish a program to increase participation in community solar subscriptions in the U.S.

—○ Low-income access to solar

Another way to increase access to the benefits of solar is through intentional policymaking to encourage and allow existing federal energy programs for low-income families to be used for solar energy. It is imperative for a just and equitable industry to ensure that adequate tools are deployed to open up access to renewable energy and its cost savings. SEIA also believes that existing federal policy to promote weatherization and energy efficiency can easily be opened up to also apply to solar.



SEIA supports legislation like HR 4291/S 2492, the Low-Income Solar Energy Act (McEachin, Duckworth)

—○ Transmission planning and grid modernization

Our electricity system needs necessary upgrades to increase security and reliability, and to allow for putting much more new renewable energy generation on the grid in the places where it is best generated. To allow for this, the United States must improve its interregional transmission infrastructure. SEIA supports the buildout of more transmission to safely and effectively bring new solar onto the grid over the next ten years.



SEIA supports HR 4511/S 3109, the Interregional Transmission Improvement Act (Haaland, Heinrich), which would require FERC to reform the interregional transmission planning process

—○ Common sense investments for federal properties and other community anchor institutions, such as schools, libraries and hospitals

As the federal government invests in solar energy, it should also work to make its own facilities cleaner using solar energy. We support legislation that would allow federal properties to enter into long term power purchase agreements.

—○ Clarification and strengthening of FERC's siting and permitting authority over interstate transmission projects

The growth of interstate transmission lines is key to bringing clean, renewable energy from where it is generated to major load centers. Delegating the authority to designate transmission corridors from the Department of Energy to the Federal Energy Regulatory Commission will ensure that this critical infrastructure is developed quickly and effectively.

—○ Powering electric vehicles with clean solar energy

The nation's electric vehicle fleet is growing rapidly, and investments in charging infrastructure are continuing to grow. For the transportation sector to successfully decarbonize, we must ensure that EVs are charged with renewable energy to the maximum extent possible. Solar charging stations and home energy systems that pair electric vehicles with rooftop solar and battery storage are an important component of the transition to a clean energy economy.

—○ Long-term federal tax policies to support domestic manufacturing of clean energy technologies

The U.S. solar industry is part of a complex global supply chain, but the acceleration of solar deployment also presents an opportunity for domestic manufacturing, to ensure that the U.S. is a global leader in the production of clean energy technologies. Tax incentives that support projects utilizing U.S.-manufactured equipment, materials and components will create positive incentives for purchases of these products while also offering long-term certainty to manufacturers.

Executive Action

—○ Improve interregional transmission planning

Coordinated planning to establish long-distance transmission lines is critical to building a 21st century electricity grid. FERC should direct a re-examination of Order No. 1000 and establish a better process to plan interregional transmission. The President should nominate FERC Commissioners with a clear interest in promoting an updated transmission grid.

—○ Optimize the electrified transportation sector

Electrifying the nation's transportation sector should be done thoughtfully and with increases to clean energy generation in mind. DOE should provide funds to study and plan for an optimized electrified transportation sector. This information should be readily available to transmission and distribution grid planners, as well as developers of electric charging infrastructure.

—○ Continued support for SolarAPP to streamline local permitting

Costs associated with permitting and inspection can account for up to 30% of the total price of a rooftop solar system, adding as much as \$1.00/watt for an average project. The onset of the COVID-19 pandemic has further underscored the need to streamline and improve the permitting process for residential solar. By automating the process and moving permitting online, the costs of going solar can decrease dramatically, allowing more Americans to reduce the electricity bills and build more clean energy capacity nationwide. The Solar Automated Permit Processing (SolarAPP) program is under development by the National Renewable Energy Laboratory and provides a flexible, web-based permitting tool at no cost to authorities having jurisdiction (AHJs). The Department of Energy should increase funding and resources for this program to ensure as many local permitting offices have access to this cutting-edge technology.

—○ Careful enforcement of the Migratory Bird Treaty Act

The U.S. Fish and Wildlife Service should approach enforcement of the MBTA thoughtfully. If changes are to be made, provide a clear pathway and workable timeline for the industry to adapt.

Ensuring Markets are Competitive & Remain Open to Clean Energy

In keeping with free market principles, a strong competitive marketplace for energy generation, that includes a full accounting of costs and benefits, is essential to keeping costs low for consumers and promoting innovation. In many cases, energy market rules were designed before clean energy technologies became widespread and are in need of reform to ensure that independent power producers, regardless of generation type, have access and can compete fairly.

By removing unnecessary costs for clean energy producers, ensuring open competition in regional electricity markets, and creating tax frameworks that account for negative externalities, the federal government can level the playing field for energy generation and help facilitate a rapid transition to a clean energy economy.

Legislative Goals

- ○ **Technology-neutral tax paradigms that allow solar and other clean energy generators to compete fairly with other fuel sources in power markets**

SEIA supports carbon pricing and other carbon policy that would properly price negative externalities and allow for fair competition among energy sources. In the absence of a carbon price, a tax paradigm that encourages the growth and deployment of low-carbon emitting energy sources is imperative. Tax incentives that are based solely on the amount of carbon emitted from an energy source are technology-neutral and an effective, holistic strategy to deploying clean energy and reducing carbon emissions.



One example of tax legislation designed to grow clean energy in the 21st Century is S 1288, the Clean Energy for America Act (Wyden)

- ○ **Fair treatment on tax policy**

Solar companies rely on open competition to provide consumers with the lowest cost energy. To do so, they depend upon a fair playing field in tax policy. For example, normalization is a 50-year old tax policy requiring investor-owned utilities (IOUs) that receive investment tax credits to spread those savings out to their customers over the lifetime of the asset. Changing this policy would trigger an anti-competitive shift in the solar and storage industries, harming private businesses, rolling back and reducing competition, eliminating opportunities for small business, undermining Congressional efforts to advance clean energy, and sticking consumers with higher prices. The best way to rapidly deploy renewables is to support a healthy competitive market with a diversity of companies

Executive Action

- ○ **Responsible trade policy that encourages clean energy growth**

As a result of the Section 201 and 301 tariffs placed on solar cells and modules, and other components and raw materials necessary for assembling solar panels, the cost of panels in the U.S. is roughly 50% higher than the global average. There are more effective ways to stimulate manufacturing in the U.S. than tariffs which in totality reduce solar employment and negatively impact economic development. Removing tariffs on clean energy equipment imports, including Section 201 and 301 tariffs, will increase solar deployment nationwide and help create jobs in all sectors of the solar value chain.

—○ Proper valuation of clean energy benefits to the electric grid

FERC should direct/encourage RTOs to develop new ancillary service products that value what the grid needs, including flexible resources, fast ramping capability and greater demand response. The President should nominate FERC Commissioners with an interest in promoting truly competitive markets that encourage new entrants.

—○ Fair and transparent PURPA implementation

The Public Utility Regulatory Policy Act has enabled independent power projects to sell power at competitive rates, and has successfully encouraged clean energy growth for decades. FERC, with strong oversight from Congress, should ensure that PURPA is implemented in a transparent and non-discriminatory manner, and that adequate enforcement follows any improper action on the part of utilities or their state regulators.

—○ Governance of Regional Transmission Organizations and Independent System Operators that allows for clean energy to compete fairly

The governance and rulemaking processes at Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) were developed without clean energy generation in mind. FERC should investigate RTO/ISO governance and stakeholder processes to ensure that energy and capacity market rules are being developed by a wide variety of stakeholders and that no undue burdens exist to participation.

—○ Organized electricity markets that respect state autonomy

FERC should ensure that states maintain autonomy to set retail electricity rates and create clean energy incentive programs. The President should nominate FERC Commissioners committed to respecting state decisions on electricity supply, integrating state and regional carbon pricing proposals into organized market rules, and encouraging the expansion of organized markets.

