

# Energy Facility Siting in Washington: Projects, Strategies and Resources

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# Table of Contents

<b>Background</b> .....	<b>2</b>
<b>Ongoing Washington efforts</b> .....	<b>3</b>
<b>Example strategies to address or mitigate siting challenges</b> .....	<b>4</b>
<b>Examples of siting initiatives in other states</b> .....	<b>4</b>
<b>Articles and resources</b> .....	<b>6</b>
<b>Acknowledgements</b> .....	<b>6</b>

# Background

Expanding the use of renewable energy resources in Washington State is key to meeting the state's carbon emissions reduction goals. In addition to climate benefits, the build-out of new wind and solar facilities can benefit communities, provide an income stream to property owners, generate taxes for schools and other services and create jobs, especially during construction. At the same time, this growth can also come with siting challenges.

Wind and solar generation require more land per unit than fossil fuel generation by an average of tenfold.<sup>1</sup> Most new onshore wind turbines installed in the United States today are the height of a 35-story building.<sup>2</sup> Offshore turbines can be even higher. Open spaces suited for large-scale energy generation can be high value for agriculture or other resource uses. Electricity from new generation often requires construction of added transmission infrastructure between source and point of consumption. Sites for electricity generating facilities and transmission lines must maximize access while minimizing disturbance of existing economies, habitat and wildlife and quality of life.

In addition to attracting the attention of environmental and conservation advocates, siting decisions can raise tension between local culture and planning structures and statewide energy needs and policies. A combination of strategies can help address these challenges using policies and informational tools.

In Washington, this means considering the existing framework and potential adaptability of our existing siting authority and our growth management laws and policy.

This document outlines siting-related efforts underway in Washington, relevant resources, approaches other states have adopted and potential strategies for overcoming siting barriers. The material is not comprehensive but is intended to present ideas for further consideration.

## Energy Facility Site and Evaluation Council

Washington's legislature created the Energy Facility Siting and Evaluation Council (EFSEC) in 1970 as a "one-stop shop" for energy permitting and siting. As necessary, EFSEC has authority to preempt local government regulations and the Council's decisions can be directly appealed to the state Supreme Court to allow for timeliness and certainty.

In 2018, at the direction of Gov. Inslee and under the leadership of incoming Chair Drew, a report<sup>1</sup> was prepared reviewing the EFSEC mission and outlining five strategic opportunities for EFSEC to better respond to the state's clean energy transition. Among other things, the report observes: **"While EFSEC's statutory authority was at one time logical and comprehensive, changes in technology and energy sources have left EFSEC with a haphazard patchwork of oversight responsibilities. In some areas, EFSEC is restricted to only reviewing types of facilities which are unlikely to ever again be proposed; in other areas, EFSEC is excluded from addressing facilities which Washington's current economy demands."**

Since the report was released, some adjustments have been made to EFSEC's processes, composition and jurisdiction. More can be done. This is likely something that will be identified through the several ongoing siting-related projects described below.

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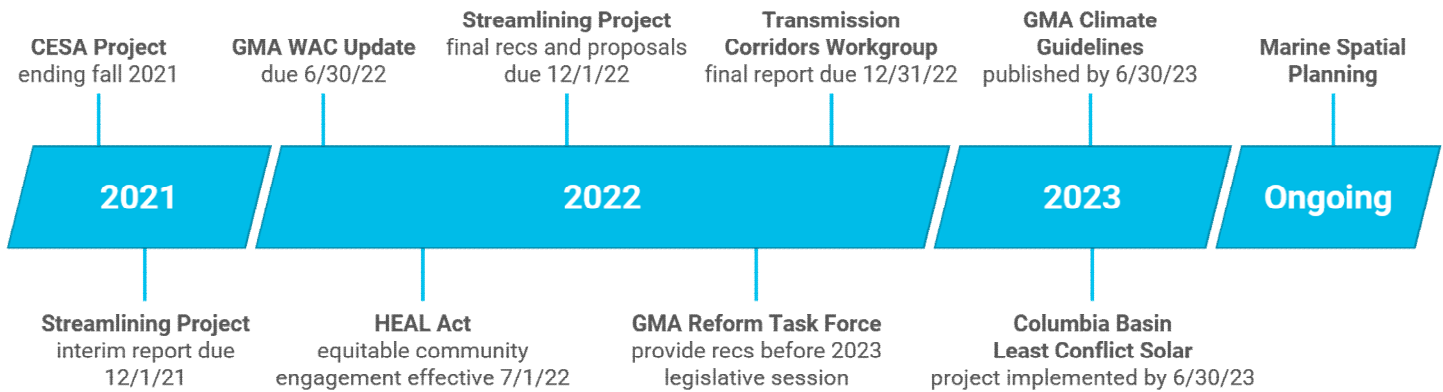
<sup>1</sup> Vaclav Smil, Power Density; John van Zalk and Paul Behrens, "The spatial extent of renewable and non-renewable power generation, as cited in Brookings report on [Renewables, Land Use, and Local Opposition in the US](#), p. 3.

<sup>2</sup> David Roberts, "These huge new wind turbines are a marvel. They're also the future," Vox, May 20, 2019, <https://www.vox.com/energy-and-environment/2018/3/8/17084158/wind-turbine-power-energyblades>, as cited in Brookings report on [Renewables, Land Use, and Local Opposition in the US](#), p. 9.

## Ongoing Washington efforts

- Streamlining Project: (Ecology (ECY), Commerce (COM)) “Develop recommendations for potential improvements to the permitting processes for industrial projects and facilities in Washington that would contribute to achieving greenhouse gas emissions limits.” An interim progress report with initial policy proposal recommendations is due Dec.1, 2021. A final report with findings, recommendations and further policy proposals is due Dec.1, 2022. [HB 1091, sec. 28.](#)
- [CESA Project](#): (COM, EFSEC) Funded by the Department of Defense to support early and ongoing civilian-military coordination for compatible siting decisions. Project outcomes will include recommendations for streamlined processes and mapping resources to assist energy facility siting. End date, fall 2021.
- Transmission Corridors Workgroup: (EFSEC) The workgroup will identify areas where transmission and distribution facilities may need to be enhanced or constructed, identify environmental review options that may be required to complete the designation of needed transmission corridors and recommend ways to expedite review of transmission projects. The findings will be reported by Dec.31, 2022. [E2SSB 5116 \(2019\), sec. 25.](#)
- [Marine Spatial Planning](#): (ECY) The MSP project includes a mapping application and data catalog and is intended to inform marine planning and ocean and coastal management decisions including the development of marine renewable energy projects. Ecology will soon release an MSP guidance document for applicants proposing a new ocean use and regulators reviewing proposed projects.
- Columbia Basin Least Conflict Solar Project: (Washington State University (WSU)): This project will “identify priority areas where there is the least amount of potential conflict in the siting of utility-scale PV solar [in the Columbia Basin] and...develop a map highlighting these areas.” Funding is for SFY23. [ESSB 5092, Sec. 19, p. 461.](#)
- Growth Management Act (GMA) Reform Task Force: (COM) This group will make recommendations regarding needed reforms to the state’s growth policy framework, including the growth management act, state environmental policy act and other related statutes. The group will report on its activities and recommendations prior to the 2022 and 2023 legislative sessions. [ESSB 5092, sec. 101, p. 64.](#)
- GMA Climate Guidelines: (COM) An interagency group will draft guidelines for use in county and city comprehensive plans and development regulations. The guidelines will describe actions to reduce greenhouse gas emissions and per capita vehicle miles traveled and may be used for developing and implementing climate change and resiliency plans and policies. The guidelines will be published no later than June 30, 2023. [ESSB 5092, sec. 126, p. 74.](#)
- [GMA WAC Update](#): (COM) Commerce is working with stakeholders and the public to update the GMA rules to provide cities and counties clear guidance before the next round of comprehensive plan updates. Among other things, this process could consider the designation and protection of resource lands of long-term commercial significance which could affect the siting of energy facilities, see [Chapter 365-190 WAC, Minimum Guidelines to Classify Agricultural, Forest and Mineral Lands and Critical Areas](#). Commerce will complete this project by June 30, 2022.
- [Healthy Environment for All \(HEAL\) Act](#) Implementation: Signed into law in 2021, the HEAL Act provides a framework for community engagement and environmental justice considerations that could help mitigate land-use and siting conflicts and improve siting decisions. In coming years, the law requires that each covered state agency incorporate practices that reduce environmental and health disparities and otherwise incorporate environmental justice considerations into the agency’s programs and activities, including “significant agency actions.”

# A Timeline of Washington's Ongoing Siting Efforts



## Example strategies to address or mitigate siting challenges

- Development or expansion of mapping tools and GIS layers at the state and local level to inform siting decisions and encourage stakeholder consultation
- Identifying least conflict, or shovel-ready, sites for energy development
- Pollinator, native plant and habitat incentives for developers and landowners
- Funding and processes for community participation in siting decisions. Communication between developers and community stakeholders early in the siting process provides valuable opportunity to identify and mitigate some of these challenges
- Model ordinances, guidelines or incentives for use in local planning and zoning
- Incentives for rooftop solar, microgrids, offshore generation and other alternatives to large, land-based generating facilities and transmission
- Expansion of authorities to create one-stop, state- or regional-level expedited permitting (i.e. NY ORES below)
- Low-interest loans or tax credit incentives for renewable energy investments on qualified brownfields, degraded lands and right-of-ways

## Examples of siting initiatives in other states

### 1. California: [San Joaquin Valley Least Conflict Solar Project](#)

- Stakeholder-led process to identify least-conflict lands for solar PV development.
- The project identified 470,000 acres of least-conflict land, amounting to roughly 5% of the 9.5 million acres in the stakeholder study area.

### 2. Maryland: [Governor's Task Force on Renewable Energy Development and Siting](#)

- The task force examined renewable energy siting issues and explored other development opportunities such as development on brownfields or parking canopies, as well streamlining of state permitting processes. One particular focus was siting of utility-scale solar on farmland.

- The [Final Report](#) submitted in August 2020 after a year-long process contains 14 consensus-based recommendations for consideration.
  - The effort included key state agencies, representatives of the agricultural community and local governments, as well as folks from the solar and wind industries.
3. Massachusetts: [Solar Massachusetts Renewable Target Program](#) (SMART) SMART Program
    - Incentive program establishing a tariff-based incentive for installing solar projects.
    - Includes adders for storage, agriculture, brownfield and low-income communities.
  4. Minnesota: [Voluntary incentive](#) adopted in 2016 to allow solar developers to make a claim of “habitat beneficial to gamebirds, songbirds and pollinators” if certain conditions are met.
    - [Pollinator-friendly](#) solar arrays can incorporate native grasses and wildflowers throughout the project, benefitting soil and crop yields.
    - Five other states have enacted similar incentives: Illinois, New York, Maryland, Vermont and South Carolina. [Pollinator habitats: The bees' knees of rural solar development | Utility Dive](#)
    - These sorts of efforts are supported by conservation groups [Making Solar Wildlife Friendly \(nature.org\)](#).
  5. New Jersey:
    - [Solar Siting Analysis and GIS mapping application](#) released in 2012 and updated in 2017 to provide state-level guidance on siting solar PV projects based on the land use/land cover resources.
    - [Community Solar PV Siting Tool - Overview \(arcgis.com\)](#) released in 2018 to assist with identifying sites that may be given a higher preference for siting Community Solar PV projects under the [Community Solar Energy Pilot Program](#).
  6. New York: [Office of Renewable Energy Siting](#) created in 2020 to serve as the central forum for predictable siting and permitting for all renewable energy projects larger than 25 megawatts.
    - Funded as a part of NY’s 2021 State Budget for up to 25 full-time employees
    - Some funds are set aside to [assist community members and municipalities](#) in reviewing and providing comments on a proposed project
    - ORES [regulations](#), [Solar](#), [Energy Storage](#) and [Wind Guidebooks](#)
    - But see, legal challenge to ORES authorities [Suit Filed On Renewable Projects | \(post-journal.com\)](#)
  7. Oregon:
    - The [Oregon Energy Facility Siting Council](#) makes the siting decisions for certain large energy facilities and some transmission infrastructure.
    - The Department of Land Conservation and Development (DLCD) provides guidance and directions on local land use decisions for solar and wind facilities and policies for siting ocean energy facilities.
    - In 2019, the DLCD adopted rules ([OAR 660-033-0130\(37\) and \(38\)](#)) for wind and solar energy siting that restrict the extent to which counties may approve construction of new commercial solar facilities on high-value farm land, with the intent of directing energy development to lands that have limited value to wildlife and farming. For example, solar panels are allowed up to 12 acres in areas with the best soil for farming. Up to 320 acres of land may be used for solar in areas with poor soils and no water rights.

# Articles and resources

## Northwest

- [NW solar, wind developments could impact vast swaths of ag land | Idaho | capitalpress.com](#)
- [Even In The Bright Of Day, Some Klickitat County Residents Have A Solar Energy 'Nightmare' | Northwest Public Broadcasting \(nwpb.org\)](#)
- [A proposed \\$1.7 billion wind and solar project generates hopes and fears in South Central Washington state | The Seattle Times](#)
- [Solar farms are booming in Washington State, but where should they go? | The Seattle Times](#)
- [Seek compromise before siting solar, wind farms in rural Washington | The Seattle Times](#)

## National

- [Clean megaprojects divide surprise group: environmentalists | The Seattle Times](#)
- [More power lines, or rooftop solar panels? The fight over energy's future. | The Seattle Times](#)
- Brookings report on [Renewables, Land Use, and Local Opposition in the US](#)
- [National Conference of State Legislators resource](#) describing states' approaches to siting wind energy facilities, including those with state, local or hybrid authorities over siting
- [NREL Wind Siting Resource](#)
- Forbes [Barriers to Renewable Energy Siting](#) article
- [Energy Zones Mapping Tool](#) to identify potential U.S. energy resource areas and energy corridors
- List of permitting standards [DSIRE \(dsireusa.org\)](#) (filter by "solar/wind permitting standards")
- [Shovel-Ready Sites Provide Plenty of Development Opportunities in 2021 - Expansion Solutions \(expansionsolutionsmagazine.com\)](#); [Shovel-Ready Sites: Certified and Ready to Go | Business Facilities - Area Economic Development, Site Selection & Workforce Solutions](#)

# Acknowledgements

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