U.S. Department of Defense
Office of Local Defense Community Cooperation

DMME

Virginia Department of Military Affairs

tools for SUSTAINABLE SOLUTIONS

Project Overview – December 2021

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OLD DOMINION UNIVERSITY

OpenSeas TECHNOLOGY INNOVATION HUB

WILLIAM & MARY CHARTERED 1693

JAMES MADISON UNIVERSITY 1908

Project Goal & Vision

Minimize/mitigate the impact of wind energy siting decisions in the Commonwealth of Virginia on US military readiness and enable the development of diverse energy sources to supply the power needs of individuals and businesses.

A set of processes, supporting tools, and training which enable organizations planning or considering the siting of wind energy projects in the Commonwealth of Virginia, to develop their projects in a way that mitigates the impact on military readiness, operations, and research activities.

Scope of Solution

- Develop processes to achieve the project goals, integrating current DoD and Coast Guard procedures with those of the Commonwealth
- Develop recommended policy and regulatory/ ordinance changes required for the success of the solution
- Develop a tool will enable a user to identify the impacts and mitigation considerations for any location in the Commonwealth of Virginia.
- Establish outreach and training program to inform and educate the various stakeholders as to the processes and tools, along with how to use them.
- Develop business model and recommendations for how the system will be maintained and sustained into the future.

Key Findings from Discovery

- Main user personas are Developer, Military, and Government
- There are multiple development cases, each having different permitting leads and supporting agencies
- There is a mixture of regulations, laws, agencies and other requirements that are not always clear
- Defense tends to be buried in the process
- Steps and coordination are missed or not done in a timely fashion
- Large need for information and education

Design Approach

- Assist Commonwealth with harmonizing approach to wind energy development
- Provide clarity by making processes transparent
- Leverage extant resources – be additive to work already done
- Provide a place where wind energy developers interested in projects in Virginia can come to learn and be facilitated through the process
- Provide state agencies and municipalities aid in tracking of permitting and site information
- **Create process to ensure the DoD receives information in a timely manner, can provide input to the permitting/development process, and is aided in tracking developments and installations.**
- **Create an extensible framework which can easily add other states wind development, or other renewables**

WindSite – Start Screen

Virginia Wind Energy Siting Tool

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WINDSite

tools for SUSTAINABLE SOLUTIONS

Providing interactive resources and process flow to customers and government stakeholders seeking to establish locations for sustainable wind energy developments.

SELECT YOUR PATH BELOW.

DEVELOPER

GOVERNMENT

MILITARY

Initial Developer Screen

Virginia Wind Energy Siting Tool

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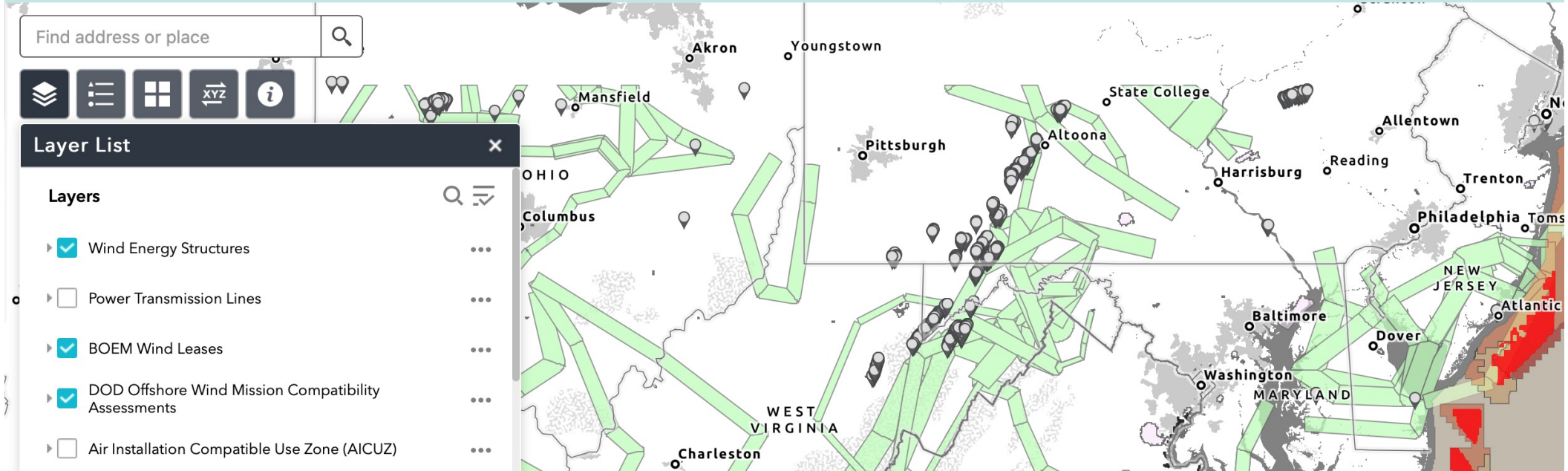
DEVELOPER

Prospective developers of wind energy sites can use our tool's public platform for exploring and learning about the various permitting processes. Here we will provide an explanation on the data, information, and resources we are sharing for our community.

This first map below is aimed at providing developers with a broad overview of siting wind projects by combining wind energy potential data, power and transmission cable routes, and local ordinances — among other types of useful information for first run analysis. **CLICK HERE to open the Map in a new window.**



Project Types

Virginia Wind Energy Siting Tool

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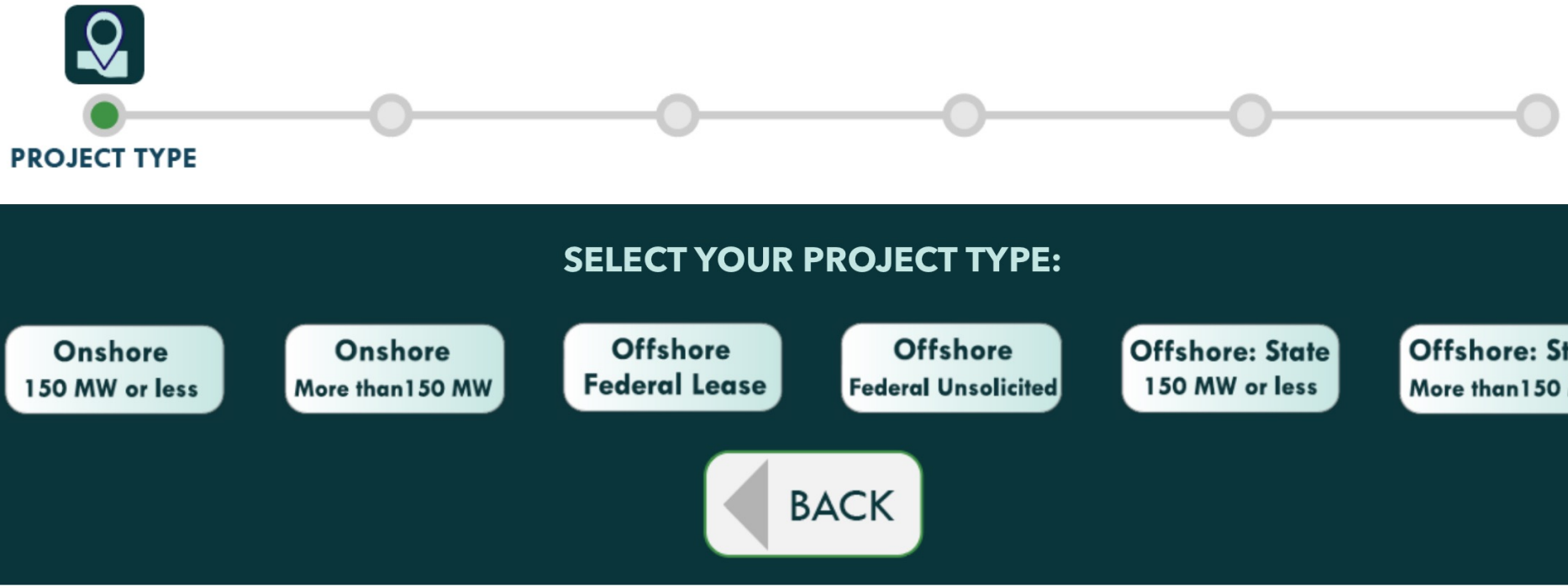
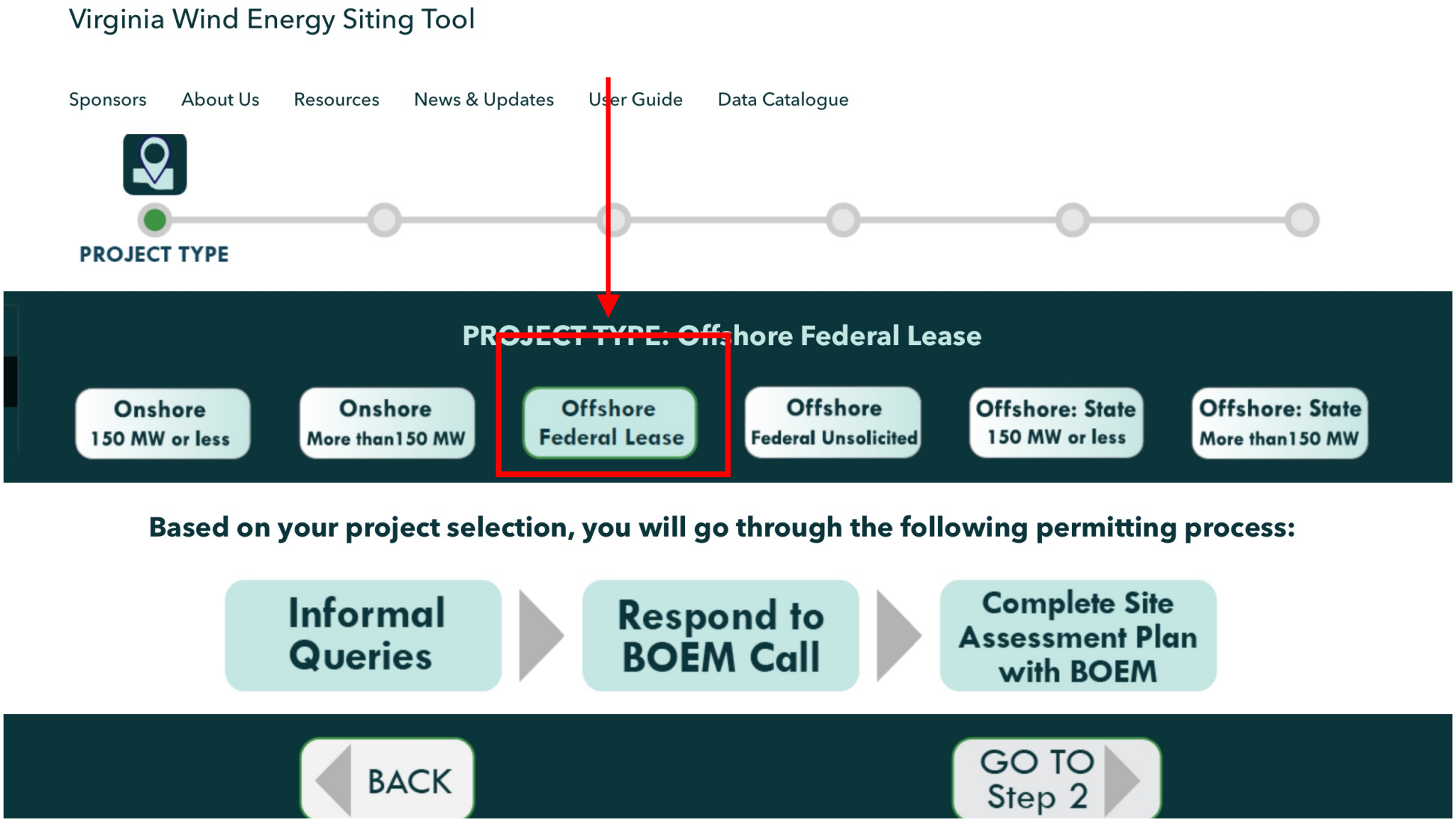


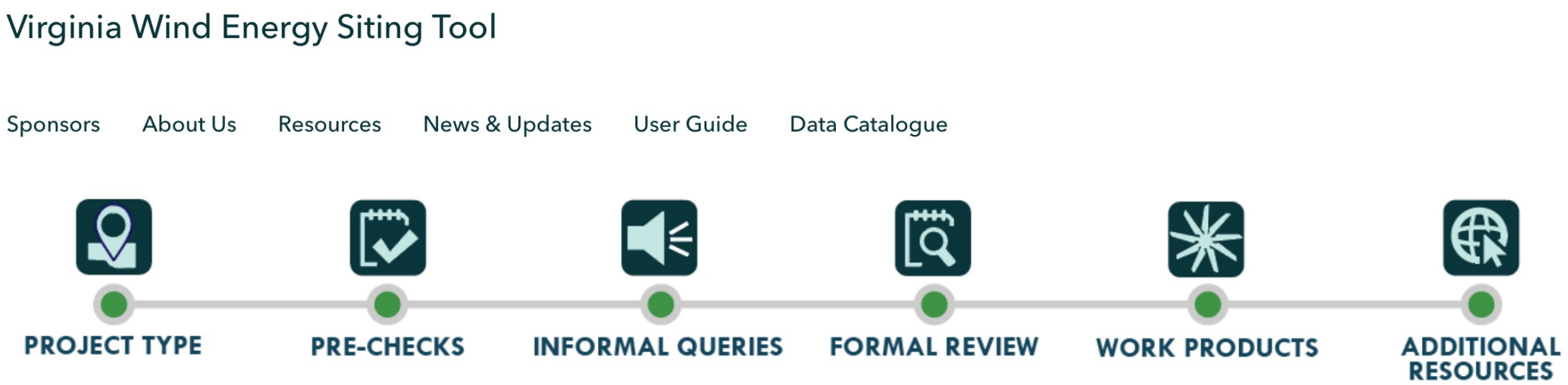
Depending on the location and generating capacity of each turbine, wind energy developers will go through different permitting and authorization processes. Use this interactive graphic to learn which permitting process your project will go through.

There are different permitting processes for onshore and offshore wind farms. In general, state agencies (DEQ and SCC) oversee onshore while BOEM, a federal agency, oversees offshore development. There are two types of process for state jurisdictions: the Permit-by-Rule process guided by the DEQ for all projects under 150 MW or the permit process through SCC for any over 150 MW. Utility scale projects almost always have to go through SCC. Offshore

Different Requirements for Each Type



Guide User Through Standard Action Series

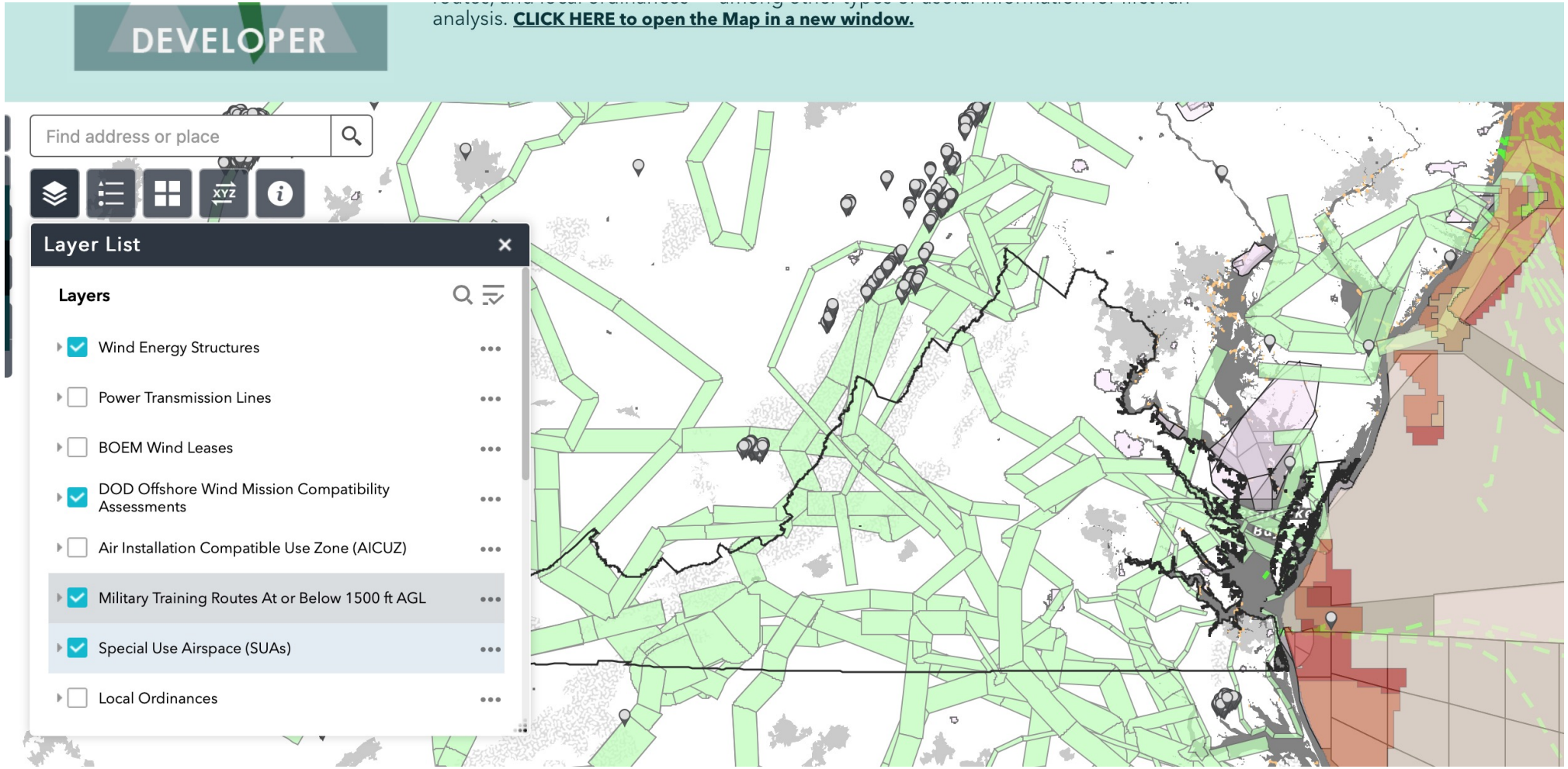


Step 6: Finishing Up

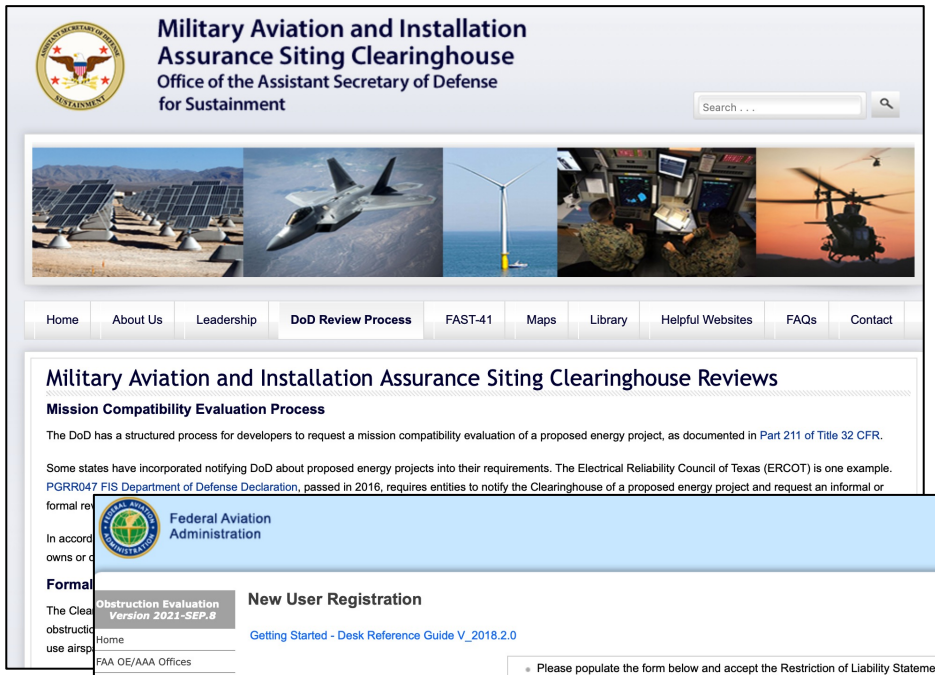
Once you have completed all required steps, continue to work with the agencies overseeing the process.

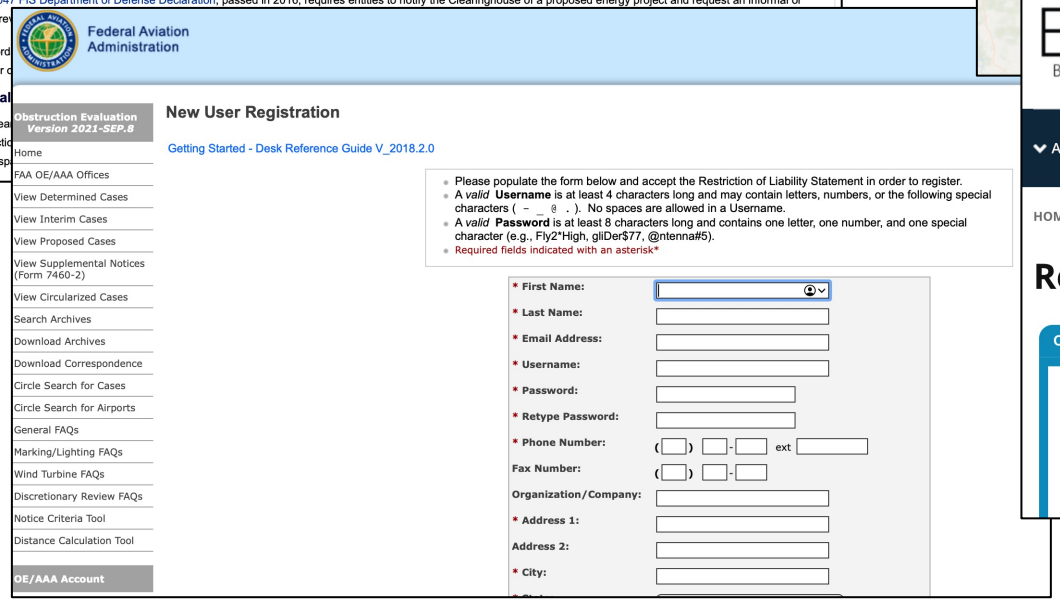
Feel free to return here should you need more data, information or resources from this point on.

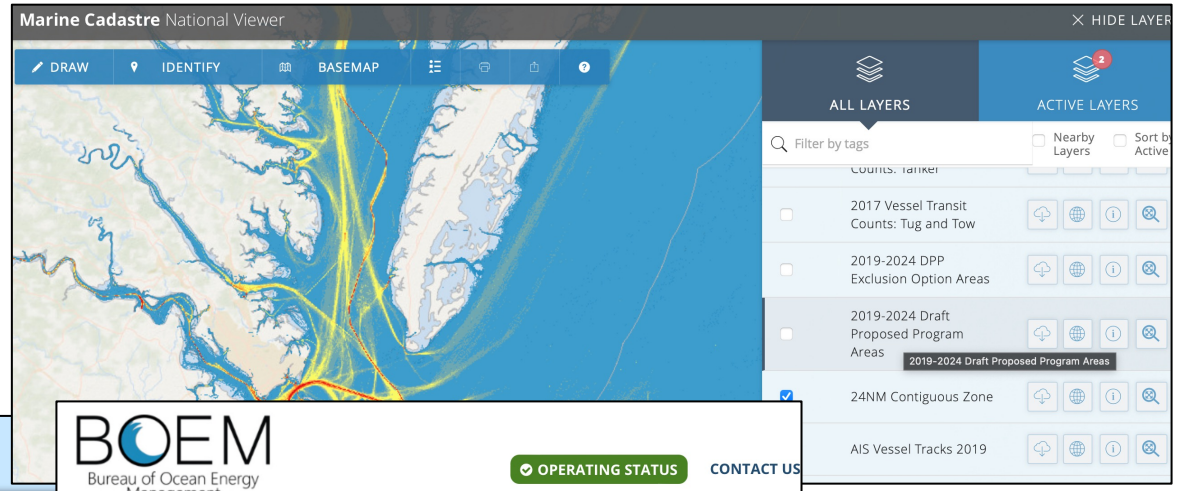
Provide Context Sensitive Mapping Data

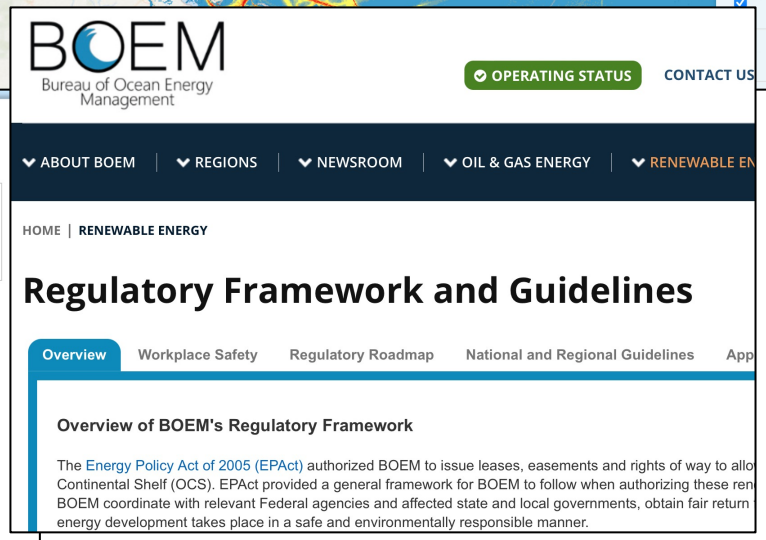


Provide Contextual Access to External Support Sites









Future Plans

Complete 1.0 in December (Current effort)

- Launch 10 December 2021

Version 2.0

- Add capabilities to 1.0
- Start addition of other states
- Start expansion into solar

Recruit participation from Smart Power Agreement states and others

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