United States Navy Gets an Energy Management Solution

GISinc

Highlights

- The United States Navy has a goal to reduce 50% of overall energy consumption by 2020.
- GISinc developed the Navy Shore Geospatial Energy Module to provide a means for the Navy to monitor and take action on energy consumption at several different levels.
- NSGEM provides the Navy with visibility on how well they are tracking toward their goals as well as data discrepancies that may create barriers to reaching their goals.

The Navy Shore Geospatial Energy Module (NSGEM) is designed to help the United States Navy achieve legal compliance and greater energy security through increased efficiency, while also helping the Navy reach its goal to reduce 50% of overall energy consumption by 2020.

Using data from a variety of existing Navy systems, such as real property and asset management, the NSGEM solution we developed for the Navy provides Navy leadership with visual dashboards showing energy consumption at the facility, installation, region, and enterprise worldwide levels. Not only is the solution working to identify the highest energy consumers, but it is also receiving feedback on renewable energy resources. This is particularly valuable information for project managers in planning renewable energy projects across the Navy Enterprise.

NSGEM data validation is addressed through a combination of regularly updated data presented through an energy dashboard and automated reports available for each Navy Installation.

Energy use intensity (EUI) is tracked from the region level down to the individual facilities. EUI is measured against industry standard benchmarks based on climate and usage type. The many components are aggregated to present a more holistic picture for Energy Plan Development.

In summary, the Navy Shore Geospatial Energy Module (NSGEM) benefits the Navy through providing standardized tools and reports to track and measure progress toward reduction goals, pinpoint specific areas for improvements, view new and alternative energy sources within the map interface, and increase overall energy consumption awareness. NSGEM provides a comprehensive solution for viewing and using energy consumption data. Additionally, it communicates data discrepancies, through GIS, that may prevent an installation from reaching its energy consumption reduction goals.

As a result of this project, our client was honored with Esri's Special Achievement in GIS award.