

Shipboard Energy Management Program

At a Glance

What is it?

Ship board Energy Management (SEM) helps ships understand and manage energy consumption while in port or pier-side utilities.

How does it work?

Made possible with metering/ monitoring tools and Resource Efficiency Managers (REMs) that assist ships with in-port energy conservation programs.

What will it accomplish?

Helps to identify opportunities to conserve energy, heighten awareness, and implement change to achieve significant cost savings for the Navy.

Metrics

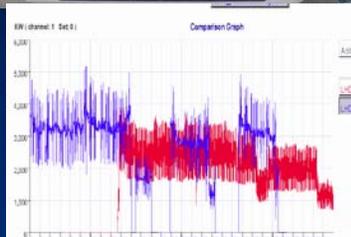
- 20% Energy reduction
- Piloted by Navy Region Southwest in San Diego – success of pilot program is generating interest for expansion to other fleet concentration areas

Applications

- Fleet wide

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Description:

The Shipboard Energy Management (SEM) pilot program was initiated by Navy Region Southwest at the San Diego bases in 2007 to expand energy managements services employed at shore facilities. The objective was to identify specific measures that could be reasonably achieved to reduce utility costs and consumption during US Navy ship in port cold-iron periods.

The SEM program is made possible with Naval Facilities metering and monitoring system called CUBIC (Computerized – Utility – Billing – Integrated – Control). The system enables the capability to monitor and record energy profiles for each ship connected to shore power. The availability of this data allows the SEM team to analyze trends, anomalies and identify energy saving opportunities.

Benefits:

The scope of Maritime Energy is not just limited to when ships are underway at sea but when they are in port as well. The SEM program in San Diego is one such program that demonstrates this overlap. As a result, the SEM program has helped to reduce the energy consumption of San Diego based ships with no impact to mission or quality of life. In addition SEM further reduces the demand on ship equipment and shore utility systems. These changes have not been the results of expensive, time consuming technology retrofits but as the result of the changing culture to prioritize energy conservation in an operational environment. An example of this energy conservation in action, while walking the space with a ship's CO, an engineer noticed the CO constantly turning off lights to reduce any unnecessary energy consumption. This first account shows sailors applying energy saving techniques at work, witnessing firsthand the financial benefits and realizing these techniques can be used at home to reduce personal utility bills. The result is a culture of sailors who recognize energy conservation as a strategic advantage.