

CASE STUDY / GENERAL DYNAMICS NASSCO, SAN DIEGO, CA

MIGHTY ENERGY Savings in Shipbuilding

General Dynamics NASSCO in San Diego, California has been designing and building ships in the Port of San Diego since 1960. NASSCO specializes in the design and construction of government and commercial ships and is a major provider of repair services for the U.S. Navy. NASSCO is committed to environmental excellence and joined SEM to deepen their impact from 2018 to 2022.

In the SEM program, delivered by Cascade Energy and funded by SDG&E's Public Purpose Programs fund, NASSCO took a closer look at energy efficiency, greenhouse gas reductions, and organizational change management. NASSCO formed a cohesive Energy Team that included people from Maintenance, Operations, and EH&S. They worked together to complete 55 energy saving projects identified during the 4-year engagement.

Mega Savings: Compressed Air

The facility in the Port of San Diego uses compressed air to drive many of their industrial processes and substantial projects were found within this system. The NASSCO team completed 22 total compressed air energy savings projects saving over 2,100,000 kWh, \$300,000, and 100 metrics tons of carbon annually. One interesting project was replacing 18 compressed air valves whose location and mechanism allowed employees to kick them on with their feet. The new design replaces the valves with a style that must be operated manually and creates a better seal. This project saves the site nearly 350,000 kWh/year (over \$50,000 annually).

GENERAL DYNAMICS NASSCO



ACHIEVEMENTS AT-A-GLANCE^{*}

>3,600,000 kWh estimated reduction in annual electric usage



1,680 Tons/Year estimated reduction in annual scope 1 & 2 CO₂ emissions





KEY SEM CHANGES

VALVE **REPLACEMENTS**

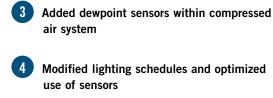






New





Adjusted compressor discharge pressure settings gradually to the right level (tweak 'n' peek)

Changed compressed air functionality through

extensive valve replacements (Left)

Turned off equipment when not in use

- Implemented setpoint controls on machinery
- Added VFDs

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The workshops gave us an opportunity to hear from similar companies to learn about what they are doing and how that can be applied (at NASSCO). Connecting with other companies with similar programs was very helpful and Cascade supported the growth of the NASSCO team. , , **SIERRA LANDAICHE**

Environmental Engineer and Energy Champion

Interested in energy efficiency options for your facility in **SDG&E territory**?

For program questions, contact our SEM Coach or visit sdsmartindustrials.com



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