

## Astoria Unit 20 Restoration Project

Orion



### LOCATION:

Astoria, New York

### PROJECTS & SERVICES:

- Managerial and Technical Consulting
- Engineering (Mechanical, Electrical, I&C)
- Planning/Project Management
- Quality Assurance/Quality Control
- Operations and Maintenance
- Design

### PROJECT OVERVIEW:

Source California Energy Services, Inc. (SCES) was the primary on-site engineering and operations coordination contractor for Orion Power in the restoration and startup of a retired, 1952 vintage, 180MW gas-fired fossil fuel generating unit. This unit had been retired for approximately eight years. SCES engineers were challenged with having very limited plant documentation and the fact that many of the plant systems had been pirated to maintain the remaining three units at the Astoria site. SCES engineers relied on their in-depth knowledge, expertise, and experience in bringing this unit back to life.

The scope of the project included:

- Completely restored the hardwire unit trip schemes for the turbine, boiler, and generator. Developed trip test procedures to thoroughly test these schemes after restoration work was completed.
- Provided engineering design and contractor coordination of the replacement and reconnection of the main transformer bank.
- Purchased and installed a set of boiler flame monitoring cameras for operator visual observation of flame quality.
- Provided startup direction for restoring plant systems to service including a new ABB/Bailey DCS.