

Sundt Generating Station Modernization

Reciprocating Internal Combustion Engine (RICE)

Engineering and Design—EPC



Client:

Tucson Electric Power

Project Name:

Sundt RICE EPC

Location:

Tucson, Arizona

RICE Supplier:

Wärtsilä

RICE Model:

18V50SG

RICE Size:

10x18 MW

Fuel:

Natural gas



TEP Self-Build

Tucson Electric Power—Owner

Project Team:

Sargent & Lundy—Detailed design engineering, procurement support, and commissioning

The Ashton Company—Construction

Schedule Milestones:

- | | | |
|------------------------------------|-------------------|-------------------|
| • Owner’s engineering start | Q1 2017 | |
| • RICE engineering start | Q4 2017 | |
| • RICE commissioning start | Q3 2018 – 5 Units | Q1 2019 – 5 Units |
| • RICE commercial operation | Q2 2019 – 5 Units | Q3 2019 – 5 Units |

Description:

Tucson Electric Power (TEP) is the owner of the Sundt Generating Station (formerly the Irvington Generating Station) located in Tucson, Arizona, which went into commercial operation in 1958. In 2017, TEP initiated the Sundt Generating Station Modernization Project, which consists of the installation of 10 new natural gas-fired RICE machines at the facility. In April 2017, TEP engaged Sargent & Lundy to begin supporting that effort. Our original scope of services was to develop the specification for the RICE original equipment manufacturer (OEM), perform the technical and commercial review of the RICE OEM proposals, and provide owner’s engineer services during the EPC bidding process.

Following the successful completion of our owner’s engineering services in November 2017, the TEP Self-Build Project Team composed of TEP, Sargent & Lundy, and The Ashton Company (Ashton) was assembled to design, engineer, and construct the project. Sargent & Lundy’s overall scope of services on this new fast-track RICE project encompasses detailed engineering, design, procurement support, and balance-of-plant (BOP) commissioning services.

Sundt Generating Station Modernization

Reciprocating Internal Combustion Engine (RICE)

Engineering and Design—EPC



- **Detailed Engineering, Design, and Procurement**—Sargent & Lundy is performing the complete project management, administration, procurement, and detailed engineering and design services for BOP items. This includes preparing and administering complete specification packages for BOP equipment. The major equipment—engines, auxiliaries, selective catalytic reduction system, and stack—are provided by Wärtsilä North America. Other major features in the design include sound attenuation provisions incorporated into the overall building design. Our detailed design includes mechanical/electrical process and BOP interconnects, civil works, transmission and distribution, and controls interface.
- **Commissioning Services**—Sargent & Lundy will work closely with Ashton and TEP to provide support through the precommissioning, commissioning, and integrated plant testing phases of the project to place the facility components, equipment, systems, and subsystems into an initial operating state.

Sargent & Lundy Contact:

James Malone, Director of Business Development
312-269-6890