

Environmental Services for Affordable Clean Energy Rule



Sargent & Lundy has the technical expertise and experience to identify heat rate improvement opportunities and prepare the technical evaluations needed to support an achievable, unit-specific performance standard.

Our project teams work closely with clients to quantify efficiency improvements, identify balance-of-plant impacts, determine capital and O&M costs, and establish performance goals that are sustainable and reflect continued long-term operation of the unit.

CONTACT US

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Sargent & Lundy has more than a century of experience working with clients to identify heat rate improvement opportunities and implement cost-effective solutions needed to support compliance with the Affordable Clean Energy (ACE) rule. Our experience pre-dates regulatory initiatives intended to reduce greenhouse gas emissions and has focused on opportunities to improve overall plant efficiencies and economics. Over the past decade we have completed comprehensive heat rate improvement studies on more than 30 coal-fired units representing upward of 14 GW in generation.

Systematic Approach to Heat Rate Improvement Studies

We have developed a systematic approach to identify heat rate improvement opportunities that take into consideration past projects and unit upgrades, historical O&M practices, plant operations, operational risks, reliability, and costs. Our studies include, but are not limited to, an assessment of the following systems:

- Boiler Island, including combustion efficiency and controls, heat transfer, intelligent sootblowers, economizer design, and air heater leakage.
- Steam Cycle, including turbine overhaul and blade path upgrades, feedwater heater, condenser, and boiler feed pump.
- Flue Gas System, including forced draft (FD) and induced draft (ID) fan improvements and variable-frequency drives.

Technical Expertise and Experience

- Establish representative baseline conditions, taking into consideration prior unit upgrades, historical O&M, and plant operations.
- Identify potential heat rate improvement opportunities.
- Prepare required evaluations quantifying efficiency improvements and corresponding costs.
- Recommend a performance standard that is achievable, cost-effective, and provides operating flexibility.

