



Cycling and Low Load Analysis

Improve your facility's competitiveness and operation by identifying modifications and improvements that support cycling operation and reduce low load limitations.

How Black & Veatch Can Help



Provide you with target costs and performance impacts for specific upgrades.



Compare current operation requirements and limitations with industry standard.



Screen different modifications or operational changes that will optimize the units cycling performance and reduce low load limitations.



Determine and quantify key performance indices to make qualitative decisions on potential upgrades.



BLACK & VEATCH



Cycling and Low Load Assessments

Black & Veatch applies software tools, our extensive database, and our experience to compare current performance to similar units and determine where upgrades and operational changes will yield the highest return.

Our analyses focus on three critical aspects of your facility that help you gain financial and competitive advantages.

- **Equipment:** We identify specific limitations on equipment performance that restrict low load operation and ramp rates resulting in a metric of performance that is then compared to similar units and allows for identification of upgrades and modifications.
- **Processess:** Compare specific processes to industry standards and best in class performance.
- **Condition:** Observe to identify where cycling has had the largest impact on your facility. This condition assessment then provides a means to determine potential equipment replacement or modifications that will reduce operational and maintenance costs.

Cycling and Low Load Assessments are available for all conventional generation types including the following four:

- Coal Fired Units
- Gas Turbines
- Combined Heat and Power
- Reciprocating Engines

Achieve Your Objectives

Operations & Maintenance Cost Control

Identify equipment upgrades and modifications as well as operational changes that will reduce plant O&M costs.

Dispatchability

Provide an objective basis for upgrades that can increase the dispatchability of the facility.

Unit Optimization

Provide the best information available to screen between different modifications, upgrades, and operational change options.

Budget Accuracy

Provide accurate independent basis for both capital and Operations and Maintenance spending.

Enhance Reliability and Safety

Ensure the unit can operate at its optimum reliability through the entire cycling process while still maintaining best in class safety practices by using our proprietary tools and our global experience.

Economic Benefits

Recommendations often have immediate payback periods. Past projects have seen significant improvements in ramp rates and the ability to withstand cycling operation with low load capabilities being reduced as much as 20% compared to current operations.