



Remaining Life Assessments

Plan | Develop | Execute | Operate & Maintain

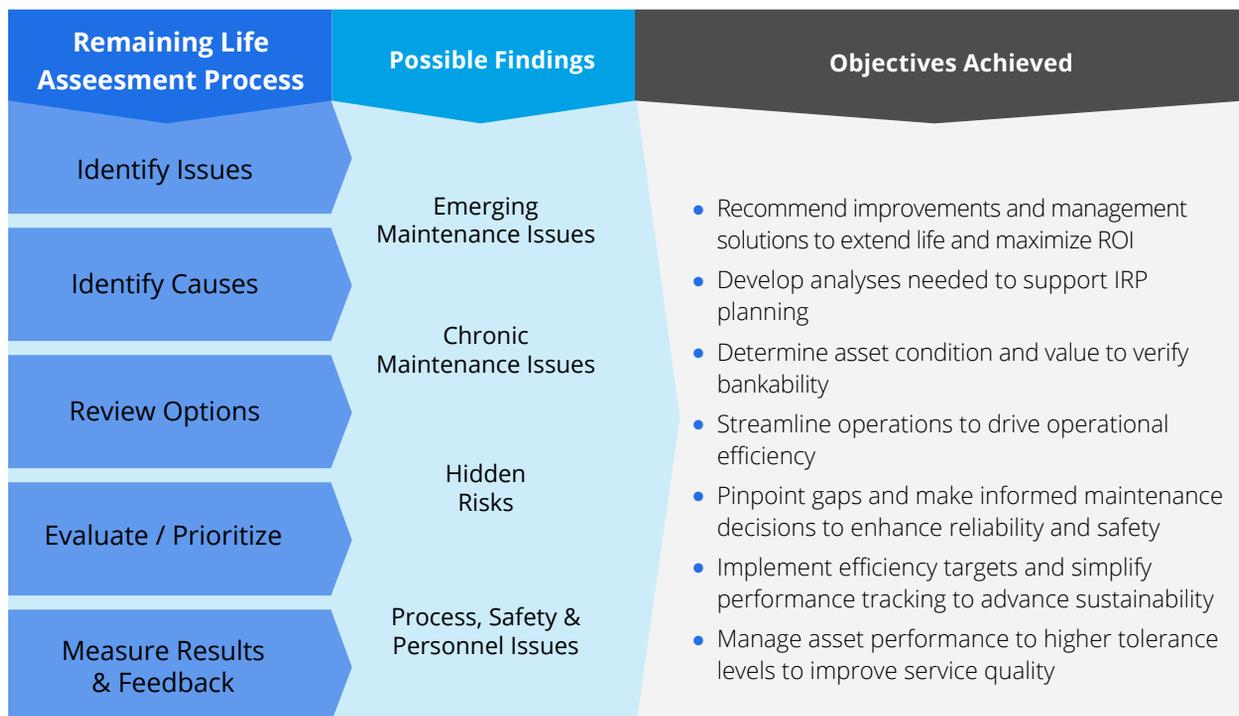


BLACK & VEATCH



Guidance for Prudent Decisions Towards Long-Term Reliability

As assets that generate and distribute power approach end of life, Black & Veatch offers services to assess and plan for a future of clean, profitable energy production. With comprehensive expertise and extensive knowledge of power plants, our remaining life assessments provide innovative, sustainable and cost-effective solutions.





Approach & Assessment Offerings

Remaining Life Assessments are available for generation, transmission and distribution assets including gas turbines, combined heat and power, reciprocating engines, solar and wind assets, substations and transmission lines.

The scale of our assessments is flexible and customizable to fit your needs. Analyses are performed using a systematic process that starts with understanding both the historic and current operation of an asset and compiling data. Findings and observations are used to determine the anticipated remaining life of all systems, risk mitigations and appropriate life-extension options.

“Black & Veatch always provides quality engineering. They’re known in the business, it’s what they do. They provided the program management, the engineering, the contract development, and the construction management. They exceeded expectations, which I think is a testament to the engineering and the scope development.”

– John Bredenkamp, Project Manager, Southern Maryland Electric Cooperative; Southern Maryland Reliability Project

We offer three distinct assessments tailored to your needs.

- **Asset Review**
 - A high-level assessment that uses on-site interviews and observations to determine equipment condition and forecast future requirements.
 - Identification of major issues that affect long-term profitability.
- **Economic Evaluation**
 - Summary of the asset.
 - Conditional evaluation.
 - Forecast of maintenance and capital projects considering the future operation of the asset.
- **Engineering Evaluation of Remaining Life**
 - Review of the remaining life in major components based on technical analysis of the condition and likely failure modes, including risks when facing extreme weather conditions.
 - A strategic plan summarizing results for each asset, prioritized based on condition and site-specific economics.

Experience

Black & Veatch has extensive experience performing life assessments, supplying critical data to help clients make informed decisions. We have demonstrated over the years the ability to quickly and accurately determine capital project requirements to continue operation of facilities while identifying all potential risks for the client.

- 1,000's of MWs of life assessment and valuation for gas, nuclear, coal and renewable assets.
- More than 1 GW of full and partial wind repower project experience.
- Integrated resource and power supply planning services provided for more than 50 projects across the U.S.
- 165 client sites with assets under management.
- 9,000+ substation projects across both AIS and GIS with bus configurations and voltage levels through 500 kV in the last decade.



Why Black & Veatch

- Extensive knowledge of all types of existing assets.
- In-depth knowledge across all technologies.
- Focused on efficient, cost-effective solutions.
- Engineering, Procurement, Construction experience yields insights regarding asset life cycle.
- Deep understanding of the specifications and capabilities of major equipment.
- Over 3,350 engineering specialists with a broad range of expertise with the ability to perform all phases of analysis in-house.
- Licensed professional engineers in nearly every state and 30+ engineers across Canada.