

TAGWeb®



PROJECT HIGHLIGHTS

- An integrated, comprehensive source of customizable data and an analytical tool to evaluate the economic cost and technical performance of power generation and energy storage technologies
- Powerful planning tool to support energy system technology screening
- Current data and information supports evaluation and planning for future capacity expansion
- Facilitates company-specific evaluation and comparison of the price of electricity from different power generation and energy storage technologies

Background, Objectives, and New Learnings

TAGWeb® (Technical Assessment Guide Web) is an integrated, web-based software tool that provides current economic cost and technical performance data and analytical tools to assess power generation and storage technologies, including:

- Renewable power generation: Wind, solar thermal, solar photovoltaic (PV), geothermal, and biomass.
- Energy storage technologies: Batteries (lithium ion; flow; metal air; sodium-based), compressed air energy storage, flywheels, and pumped storage hydropower.
- Fossil-fired technologies: Natural gas combustion turbines (CTs) and combined cycles (CCs), pulverized coal, and coal gasification technologies, all with and without carbon capture and storage (CCS) options.
- Nuclear technologies: Conventional and small modular reactors (SMR).
- Distributed generation: Reciprocating internal combustion engines (RICES), small combustion turbines, and fuel cells.

TAGWeb enables company resource planners, engineers, and strategists to identify lower-cost, environmentally-compliant power generation and storage options related to new capacity additions, plant retrofits and retirements, and major asset replacement and refurbishment. Many electric companies use TAGWeb to support development of their Integrated Resource Plans (IRPs) and screen new potential capacity additions. Data from TAGWeb can be used in utility planning documents and provided to regulatory agencies, as long as the criteria in the [TAGWeb Usage Guidelines](#) have been met. Some electric companies also use TAGWeb to validate or benchmark cost and performance data collected internally or from third-parties.

Each year, EPRI updates cost and performance data for specific technologies to reflect evolving market conditions and technology trends based on input from the members of EPRI's Energy System Technology Cost, Performance, and Techno-Economic Analysis (Project Set 178A) R&D program. The objective of this project is to update TAGWeb based on data and information from the updated technology cases.

Benefits

TAGWeb software can provide the following benefits:

- Facilitates more informed decision-making for power plant retirements, retrofits, and new generation resources. EPRI uses data derived from TAGWeb to inform public-domain technical analyses and to conduct assessments of energy technologies, energy-economic analyses, and potential emissions reduction strategies.
- Provides a single, comprehensive source of data on the economic cost and technical performance of power generation and energy storage technologies to support capital investment and system resource planning.
- Delivers consistent, credible, and current cost and performance data and information on conventional and advanced power generation, energy storage, and environmental control technologies.
- Offers customization based on ambient conditions and regional labor and material rates to develop company and state-level specific data to support financial analysis and resource planning needs.
- Provides critical technology cost and performance data to benchmark and validate technology information developed internally or by third-parties.
- Enables electric companies to reduce market and operational risk from a portfolio of generation and storage resources by evaluating a range of technology, fuel, and economic scenarios.
- Supports electric company capital investment and financial planning, as well as risk management.

Project Approach and Summary

Industry and Technology Updates

EPRI plans to update cost and performance information for specific technologies based on input from the members. Regularly updated technologies are expected to include:

- CTs, RICEs, and CCs with CCS
- Conventional reactors and SMRs
- Solar PV, solar thermal, onshore wind, offshore wind, and biomass
- Batteries (multiple types) and emerging energy storage technologies

TAGWeb Capabilities

TAGWeb serves as a single, comprehensive source for current capital and operations and maintenance (O&M) costs and technology performance data that can be customized to meet individual company needs. TAGWeb data can be used as inputs into production cost and capacity expansion modeling tools to support long-term resource planning analyses and preparation of IRPs. High-level sensitivity analyses can also be performed with TAGWeb to support “what if” scenarios related to key economic attributes (e.g., fuel pricing, financing costs).

Deliverables

- **TAGWeb® Access:** One-year license to access for up to five individual users in a single company.
- **Online Training Materials:** Access to online training materials to assist users in learning TAGWeb.

Price of Project

The price to participate is \$85,000 per year. This annual project is included with membership in Project Set 178A. EPRI members may use Self Directed Funds (SDF).

Project Status and Schedule

Annually: January 1 to December 31.

Who Should Join

TAGWeb is open to existing and new participants. The project provides a valuable tool for project planners, system resource planners, and company staff engaged in financial, marketing, engineering, and technology R&D.

Contact Information

For more information, contact the EPRI Customer Assistance Center at 800.313.3774 (askepri@epri.com).

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