Introduction to TAGWeb – EPRI’s Power Plant Cost and Performance Software

Technology Cost and Performance Program, PS178A
Agenda

- Background on EPRI
- TAGWeb -- EPRI’s Technology Cost and Performance Software:
  - Key Drivers
- Direct Application and Benefits of TAGWeb
- Utility Staff Engagement
- TAGWeb Demonstration
EPRI was founded by and for the electricity industry in 1972 following The Great Northeast Blackout in New York City in 1965.

Formally established in 1973 as the Electric Power Research Institute, EPRI manages a broad public-private collaborative research program on behalf of the electric utility industry, the industry’s customers, and society at large.
Our History…Born in a Blackout

- **EPRI** is an independent, nonprofit center for public interest energy and environmental research
- Collaborative resource for the electricity sector
- Major offices in Palo Alto, CA; Charlotte, NC; and Knoxville, TN
  - Laboratories in Knoxville, Charlotte, and Lenox, MA
Energy & Environmental Analysis

178: Integrated Energy Planning, Market Analysis, and Technology Assessment
PS178A: Technology Cost and Performance
PS178B: Integrated Energy System Planning and Market Analysis

Highlighted Applications:
- Efficient Electrification State and Utility Assessments
- Understanding Climate Scenario and Goal Setting Activities
Program 178 Structure

P178: Integrated Energy Planning, Market Analysis, and Technology Assessment

Project Set 178A
Technology Cost and Performance

- Annual Technical Assessment Guide (TAG)
- Associated Technical Studies
- Annual TAGWeb User Access
- New GTCC Project Development Interest Group
  - Reciprocating Internal Combustion Engine (RICE) Interest Group

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Included in TAGWeb supplemental

Project Set 178B
Integrated Energy System Planning and Market Analysis
EPRI’s Technology Cost & Performance Software: TAGWeb

- TAGWeb is an internet-based software package that serves as both a cost database of power generation and storage technologies and financial analysis tool.
- The TAGWeb software is accessible via membership in Program 178, Project Set 178A or TAGWeb supplemental.

TAGWeb provides a sound technical basis for understanding and comparing technology cost estimates and validating results of more detailed, engineering-based studies.
Key Drivers for the TAGWeb Software

Objective Data
- Objective technology cost and performance data to support business planning and project evaluation

Thought Leadership
- Thought leadership to better address issues that are further on the horizon regarding utility generation planning

Validation
- Validate or develop cost estimates for internal near-term new power generation development projects
Direct Application of TAGWeb Software

- Integrated resource planning
- Initial internal business planning
  - Project feasibility / Operations & Maintenance (O&M) contracting practices / internal benchmarking
- Validate internal cost and performance data
- Employee education and development
- Status of commercial technologies and near-term advancements that have the potential to be game changers
- Costs trending provides information for better decision making
- Cost granularity and detailed explanations
Benefits of the TAGWeb Software

- “One-stop” information source and analytical tool for capital investment planning in the electric power industry
- Facilitates analysis and customization
- Multi-use tool for energy professionals involved in business planning, investment analysis, integrated resource planning, installed capital and O&M costs estimation

One detailed cost report from an engineering contractor costs $75–$100k compared to TAGWeb supplemental membership at $85k for 3–5 technical cost reports and collaborative opportunities with peers
TAGWeb: A Planning Tool for Energy Professionals

- Integrated Resource Planning
- Technology Forecasting
- Generation Development
- Energy Evaluation
- Financial Evaluation
- Project Controls
- Plant O&M Budgeting

TAGWeb
**TAGWeb Supplemental Engagement Opportunities**

- Two in-person advisors meetings and program webcasts
- Program annual research prioritization process
- New Gas Turbine Combined Cycle Plant Development Interest Group Workshops
- TAGWeb Users Group Workshops*

*These workshops can be scheduled by individual companies at the convenience of interested staff*
Hands-on TAGWeb Demonstration

- With TAGWeb, users are able to:
  - Generate reports comparing technologies, fuels, and economic scenarios
  - Export data, plots, tables, text files, and graphics
  - Revise the technical data
  - Conduct sensitivity studies of cost estimates for electric generation and storage technologies

EPRI provides a baseline data for several cases for each of 19 different technologies, including, for example, different sizes, locations and types of coal and renewable based generation.

Potential builds out for future versions of TAGWeb.
Together...Shaping the Future of Electricity

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