

ABSTRACT

Performance Evaluation Method for Energy Research Projects

by

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In the last several years, EPRI has led a broad-based industry endeavor to develop and publish the *Electricity Technology Roadmap*, a high-level document that provides guidance on strategic technology planning over the next 40-50 years for the electricity industry. However, critical uncertainties over this timeframe – such as fuel prices, the economy, the environment, technology advances, and regulatory policies – complicate effective development of R&D priorities. To address these uncertainties and to develop a nearer-term technology-oriented action plan, EPRI undertook an *Electric Power Industry Technology Scenarios* project that uses scenario planning to explicitly incorporate uncertainty and focuses on a 20-year planning horizon. The first deliverable from this work effort, published in December 2005 (EPRI report 1013016), defined four carefully specified future scenarios. The second deliverable in this work effort used a scenario based R&D strategic planning approach to define and prioritize key technology R&D areas to work on and to determine the time-phasing of the work. The purpose of the present paper is to describe a method to evaluate the performance of the R&D work as it is carried out. The performance evaluation method is based on tracking agreed upon milestones for each of the R&D projects funded and then weight the annual results achieved by factors corresponding to distinguished, target and threshold performance levels. The progress achieved for each project is determined by accounting for the risk associated with each goal (e.g., some goals may be “stretch” goals), and using the sponsors of the work, as well as industry stakeholders appropriate to the topics covered in the work, to evaluate the degree for which each annual milestone is achieved and to determine the weighting factor to use for each milestone, as described above.