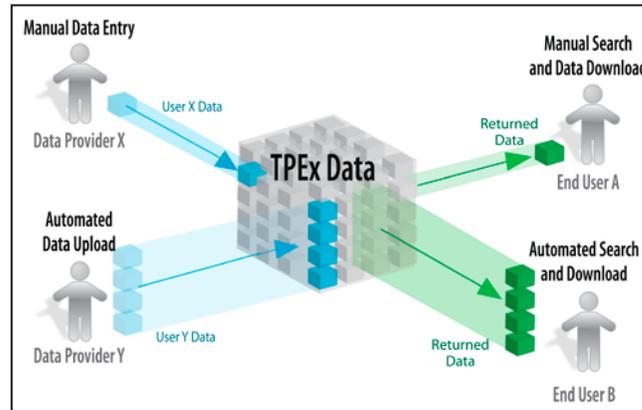


NREL Improves Access to Building Product Energy Data

Highlights in
Research & Development

Technology Performance Exchange helps move projects to implementation.

A new Web-based tool enables users to evaluate the site-specific performance of various building technologies, support more effective financial analyses, and make better-informed procurement decisions. By improving stakeholders' confidence in performance, the Technology Performance Exchange™ (TPEX™) is streamlining access to foundational energy performance data and helping many viable energy efficiency projects move from the drawing board to the implementation stage.



TPEX users can share and download product performance data directly using the TPEX Web interface, or automatically by using the application programming interface (API). By providing automated data access, the API helps users easily incorporate TPEX data into third-party applications. Image by Marjorie Schott, NREL

Stakeholders who influence energy consumption and the procurement of energy-consuming systems or technologies in the commercial building sector face two important data-related barriers. First, these stakeholders are often approached with energy-saving products, but they don't have access to data quantifying those savings. Second, even if the data exist, they are often provided as a case study, and the results are usually intertwined with non-applicable site- and operation-specific parameters. Thus, when these internal champions determine that a product would likely increase efficiency, they often have difficulty convincing their management because a lack of performance data prohibits the development of a quality business case.

To address these challenges, the U.S. Department of Energy and the Bonneville Power Administration funded the National Renewable Energy Laboratory (NREL) to develop TPEX, a free, publicly accessible Web-based portal that facilitates the identification, storage, and sharing of transparent, foundational energy performance data. TPEX uses data entry forms to identify the intrinsic, technology-specific parameters necessary for a user to perform a credible energy analysis and includes a robust database to store and share these data.

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Reference: "Technology Performance Exchange." (2014). National Renewable Energy Laboratory. performance.nrel.gov.

Key Research Results

Achievement

NREL developed TPEX to facilitate the sharing of transparent energy performance data for building-related products. With this valuable data, building managers can make better decisions on the best fit for their specific environment and project.

Key Result

TPEX defines the information required to credibly predict energy performance of individual technologies and facilitates the storage and sharing of these data via a Web-accessible database.

Potential Impact

By improving confidence in the predicted energy savings associated with specific products or technologies, TPEX will help move many projects from the drawing board to implementation.

NREL is a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, operated by the Alliance for Sustainable Energy, LLC.

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