



U.S. Department of Energy

**Energy Efficiency and Renewable Energy**

*Bringing you a prosperous future where energy is  
clean, abundant, reliable, and affordable*

## EERE Network News

**October 20, 2004**

### **Energy Connections**

#### **Electric Research Groups Unveil New Power Grid Architecture**

A coalition of utilities, government agencies, and non-profits unveiled last week their proposed architecture for a new "smart" power grid that integrates the power delivery system with the information system that controls it. The smart power delivery system concept, called Intelligrid Architecture, includes automated capabilities to recognize problems in the system, find solutions, and optimize the performance of the system. Such a power system would offer greater reliability and flexibility while enhancing system security. The Intelligrid Architecture is described in a report that includes a catalog of the functions of the electricity system, a set of design tools, and recommendations for standards and technologies.

Some utilities and agencies are making plans to use of some of the Intelligrid Architecture tools in the near future. The California Energy Commission, for example, plans to use the tools in working with three major California utilities to design consistent automated demand response systems. Other utilities plan to use the tools to automate substation design, and upgrade communications systems between control centers and power plants.

The Intelligrid Architecture report was sponsored by a consortium of partners organized by the Electricity Innovation Institute (E2I), an affiliate of the Electric Power Research Institute. See the [E2I press release](#) or go directly to the [Intelligrid Architecture report and tools](#).

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