

# OpenADR: The Killer App for the Smart Grid



*Utilities can cost-effectively meet changing energy demand – and customers can control their energy uses – and cost.*



When the weather is hot or cold, sun and wind fluctuate, or other factors change the dynamics of the grid, power demands can change frequently as both generation and end users demands put extra stress on the stability of the electrical supply. Costs, in turn, can skyrocket and grid reliability goes down.

How do utilities and other power stakeholders deal with this extra stress – and the associated expenses? Demand Response (DR) and Distributed Energy Resources (DER) management.

Demand side management programs allow building owners and DER operators to plan how their building systems will work when the power grid is under stress. Automating DR and DER makes it more reliable. OpenADR makes it easier to use and more widespread.

OpenADR leverages common language and existing communications (i.e. Internet) to negotiate dynamic price and reliability signals from the smart grid. As a result, utilities can cost-effectively meet growing energy demand – and customers can control their energy uses – and cost.

## The OpenADR Value Proposition

Widespread adoption of OpenADR accelerates the successful implementation of Demand Response programs and Distributed Energy Resources, thereby providing the following major benefits for all stakeholders:

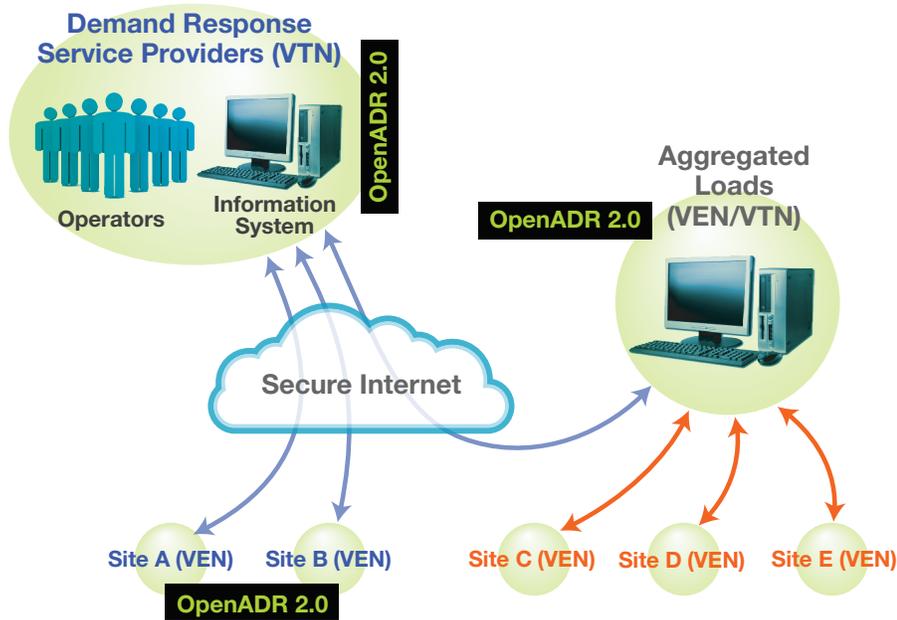
**Reduced Implementation Costs:** Standardization lowers development and support costs for vendors and, ultimately, their utility customers. Standardization also fosters technology innovation and competition, which expands product choices for both utility Demand Response and DER programs and vendor development.

**Assured Interoperability:** Power providers and users alike are assured interoperability because of a rigorous testing and certification program implemented by the Alliance.

**Greater Reliability:** Products based on robust standards function dependably under normal circumstances and are able to recover from any anticipated error conditions to deliver dependable operation.

**Enhanced Flexibility:** With its support for both Simple and Smart Clients, OpenADR can work with existing Demand Response and DER equipment (so-called backwards compatibility), as well as with newer, more sophisticated systems offering advanced feature sets.

## OpenADR Diagram



## OpenADR Reduces DR & DER Implementation Costs

Commercial, industrial and residential customers, and energy aggregators, can reduce costs, time and risk in the selection and deployment of products and systems based on the OpenADR standard. Work being performed by the OpenADR Alliance will educate these users about the benefits of Demand Response and DER management, and will increase their confidence in the available solutions with rigorous testing and certification programs.

As a result, equipment vendors and systems integrators can accelerate the time-to-market for and lower the development costs of innovative products and services, while electric utilities, ISO and RTOs gain faster access to the market, experience lower capital and operational expenditures, and achieve greater success with Demand Response programs. Even regulatory agencies benefit from knowing that the introduction of new pricing policies will not be undermined by incompatibilities or other end-to-end impediments in the marketplace.



## Join the OpenADR Alliance

Industry stakeholders worldwide are working together to foster the development, adoption and compliance of the OpenADR standard through collaboration, education, training, testing and certification.

The OpenADR Alliance brings system operators, utilities, aggregators, controls vendors and solution providers — to facilitate and accelerate the use and adoption of this international standard.

Policies will not be undermined by incompatibilities or other end-to-end impediments in the marketplace.

**More information on the OpenADR Alliance is available at [www.openadr.org](http://www.openadr.org)**

### OpenADR Alliance

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