

## Definitions Relevant Chapter 045

RTO means regional transmission organization, operator.

Smart grid means an intelligent, autobalancing, self-monitoring power transmission and distribution grid that accepts power generated by any source of fuel generation and transfers transforms it for into a consumer's end use with minimal human intervention. It is a grid that has the ability to sense when a part of its system is overloaded and reroute power to reduce that overload and prevent a potential outage situation; a grid that enables real time communication between the consumer and utility to allow the customer's energy usage to be optimized based on environmental and/or price preferences. A smart grid is characterized by:

(A) Increased use of digital information and controls technology to improve reliability, security, and efficiency of the electric grid.

(B) Dynamic optimization of grid operations and resources, with full cyber-security.

(C) Deployment and integration of distributed resources and generation, including renewable resources.

(D) Development and incorporation of demand response, demand-side resources, and energy-efficiency resources.

(E) Deployment of 'smart' technologies (real-time, automated, interactive technologies that optimize the physical operation of appliances and consumer devices) for metering, communications concerning grid operations and status, and distribution automation.

(F) Integration of 'smart' appliances and consumer devices.

(G) Deployment and integration of advanced electricity storage and peak-shaving technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air conditioning.

(H) Provision to consumers of timely information and control options.

(I) Development of standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid.

(J) Identification and lowering of unreasonable or unnecessary barriers to adoption of smart grid technologies, practices, and services.