

DISTRIBUTED GENERATION



Distributed generation, also called on-site generation or decentralized generation, is the term for generation of electricity from sources that are near the point of consumption, as opposed to centralized generation sources such as large utility-owned power plants.

Centralized generation facilities are widely prevalent in industrialized countries, the vast majority of electricity being generated by centralized coal, natural gas, oil, nuclear, and hydropower plants. While centralized plants have good economies of scale, they usually transmit electricity

long distances, requiring more energy to make up for transmission and distribution losses.

Distributed generation systems, which can include on-site renewable energy systems and combined heat and power (CHP), reduce the amount of energy lost in transmitting electricity because the electricity is generated near the point of consumption, often even in the same building or facility. This also reduces the size and number of power lines that must be constructed.

Despite the economic, energy, and environmental benefits of distributed generation, such systems face market and regulatory barriers, which differ among states and utility territories. Regulations dealing with air emissions, interconnection, net metering, and standby rates can often determine whether a distributed generation project will be implemented. ACEEE reviews and scores these regulations on a state-by-state basis in our annual State Energy Efficiency Scorecard, and we advocate for sound distributed generation policies at the federal level.

Source: <http://aceee.org/topics/distributed-generation>