

DEMAND SIDE MANAGEMENT (DSM)

Any initiative or program seeking to reduce consumer demand for electricity

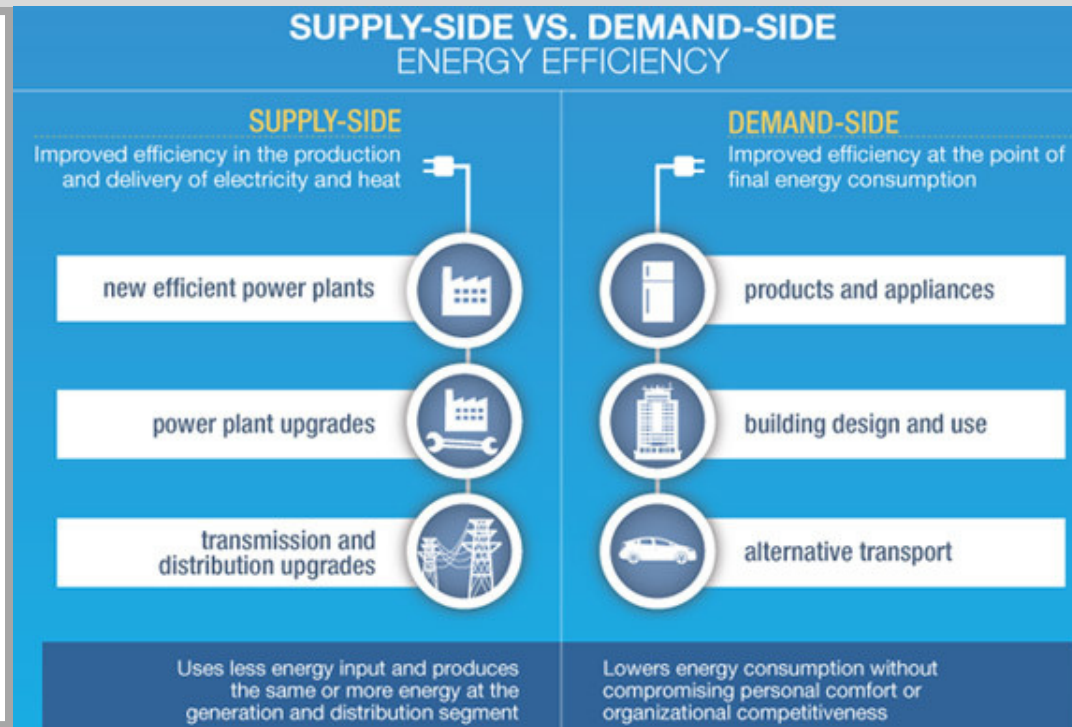
TYPES OF DSM PROGRAMS

Energy Assessment - Utility sends personnel to analyze and suggest Energy Efficiency solutions for your home or business

Financial Incentives - Cash payments or rebates on more efficient technologies or devices

Direct Installation - Free installation of energy efficiency technology

Performance Contracting - Consumer or energy service company (Aggregator) create a contract with utility to lower energy use in exchange for payment



BEST PRACTICE DSM PROGRAMS

Residential Programs: Provide information and installation of energy efficiency devices in residential households

Provide Home Energy Report with information about energy consumption and tips and methods for saving energy

Low-Income Programs: Provide Free Direct Installation of energy efficient devices and appliances to engage low-income customers

Otter Tail Power Company offers free home efficiency upgrades to replace old appliances and improve home sealing for income-qualified customers and low-income multi-unit dwellings

Multi-Unit Dwellings Programs: Provide Financial incentives or rebates to install energy efficiency equipment and appliances in order to engage MUD building managers

Con Edison power company offers building managers free LED light installations, financial incentives for equipment upgrades, and rebates for installing more efficient gas heating equipment

Education and Outreach: Advertise and explain programs effectively, provide follow-up with customers, and adapt programs based on feedback to ensure continued adoption of program

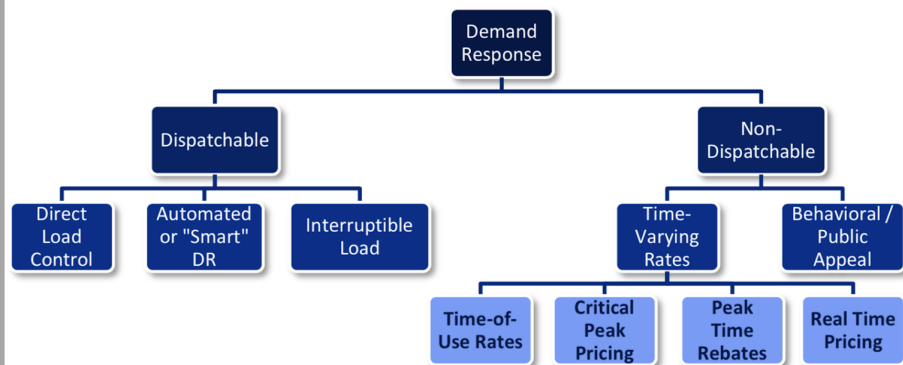
DEMAND RESPONSE (DR)

A type of Demand Side Management program or initiative to shift energy usage to off-peak time

Types of DR

Dispatchable DR - Utility can access the energy if they deem it necessary to reduce usage

Non-Dispatchable DR - Customers adapt energy usage voluntarily



Dispatchable DR

Utility controls the energy resources and can adjust usage if they deem it necessary in exchange for financial incentives.

Direct Load control - utility can turn off/adjust electricity usage during high demand

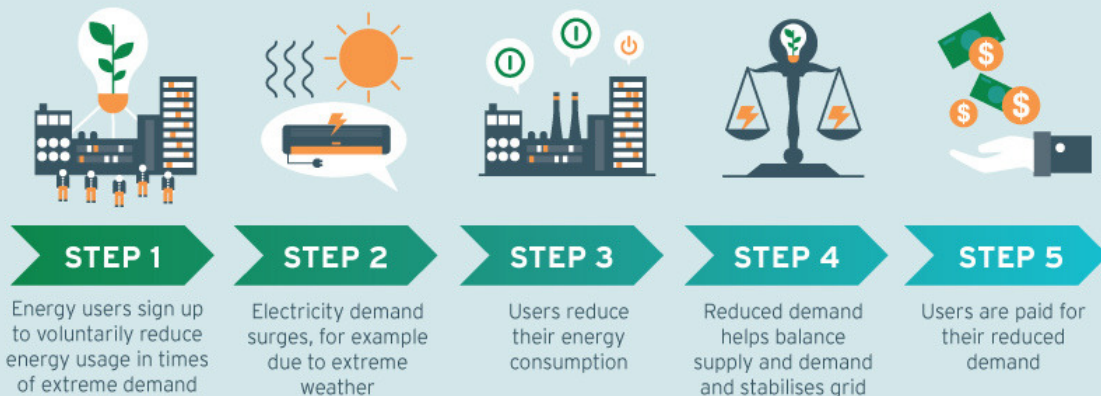
Automated DR - automated "smart" device receives signal when DR event starts that triggers action like adjusting power usage

Interruptible load - utility and customer agree that if utility calls DR event customer must reduce usage

DEMAND RESPONSE

HOW IT WORKS

Demand Response, a joint initiative of ARENA and the Australian Energy Market Operator, aims to ensure stable energy supply during times of peak demand. ARENA has contributed \$30 million to the project, which will be rolled out in the 2017-18 summer. The NSW government has contributed \$7.5 million.



Non-Dispatchable DR

Customers adapt their usage voluntarily following price signals/incentives

Pricing tariffs

Time of use - charges more for power used during peak hours of the day

Critical Peak Pricing - An anticipated high demand day/event where utility calls a critical event with higher rates

Peak Times rebates - monetary rebates to those who reduce usage during peak times;

Real Time Pricing - electricity rates vary by hour given by smart meter

Behavioral - asking customers to use less energy without incentives, assisted by technology

Best Practice DR Programs

Industrial and Large Electric Programs : Load Aggregation and Load Reduction through Utility or Energy Service Company can provide energy savings for industrial and large electric customers.

Energy Pool is an aggregator in France that identifies flexibility in industrial and large commercial users and then offers this flexibility in other electricity markets.

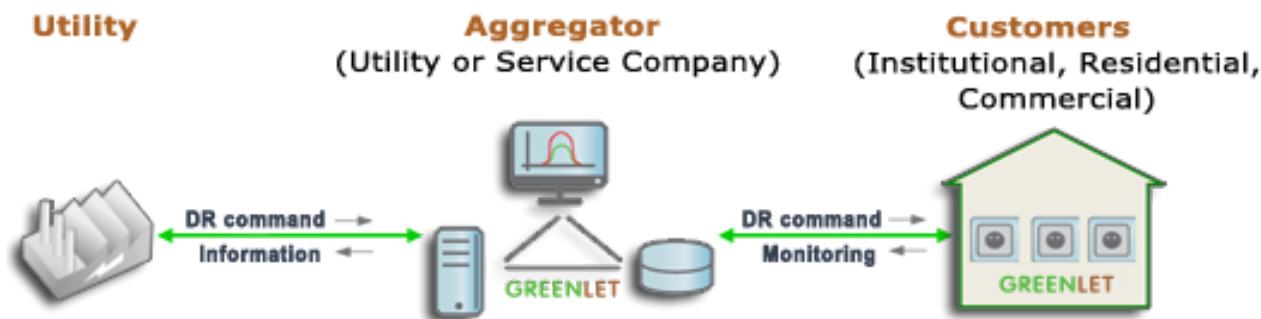
Flextricity is an aggregator in the United Kingdom that serves large commercial and industrial users to incentivize load aggregation and offer this extra usage in reserve markets.

Residential Programs : Direct control of electricity load and new pricing tariffs are the best way to help residential customers shift energy usage

French aggregator company Voltais gives free smart devices in homes, which reduce heating in short intervals when Voltais receives signal from operator

Another Example

“Tempo Tariff” in France gives each day a corresponding color according to price, and the hours are distinguished whether it is one of eight off-peak hours; Based on this information, customers can adjust their usage manually or set their meter to adjust automatically



An Aggregator works between Utility and Customers by reducing energy consumption during DR event and then sending that information back to the Utility and the saved energy back to the grid

DSM and DR Programs for You!



Entergy New Orleans - Energy Smart Program

Residential - Offers home energy assessments and instant rebates on Air Conditioning tune ups, weatherization programs, among others

Business - Offers cash incentives for completing eligible upgrades with measurable/verifiable energy savings for commercial customers

Call toll free **504-229-6868** or go to **www.energysmartnola.info** for more info

Enter Louisiana - Entergy Solutions Program

Residential - Rebates on air conditioning tune ups, reduced cost energy star products, energy savings kit, free weatherization upgrades for eligible customers, free upgrades for Multi-Unit Dwellings

Business- Rebates on HVAC equipment, lighting and automation controls

Call **844-829-1300** or **www.energy-louisiana.com/energy_efficiency/main**

SWEPSCO - Save Energy /residential program

Residential - rebates on air sealing, smart thermostats, high efficiency air conditioning

Business - Incentives for HVAC, lighting upgrades, air compressors, lighting controls, among others

Go to **www.swepco.com/save/residential/programs** and follow steps listed

CLECO - Power Wise Program

Residential - Instant rebates on insulation, HVAC and heat pump replacements, air infiltration sealing

Small commercial - (< 100 KW) receives financial incentives for energy efficiency lighting and HVAC upgrades, could be 100% of the cost covered up to \$25,000 (16 cents per kWh saved)

Large Commercial - (> 100 KW) - 10 cents/kWh for lighting upgrades, and 15 cents/kWh for HVAC upgrades

Go to **www.cleco.com/energy-efficiency-programs** for more info

Department of Energy - Weatherization Assistance Program

Free energy efficiency upgrades for low income qualified households through the Department of Energy

Go to **www.energy.gov/eere/wipo/weatherization-assistance-program** for more info