

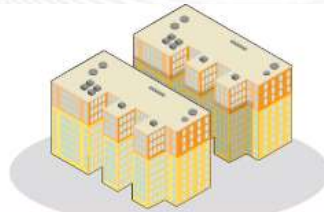
# Demand Response and Energy Efficiency In the PJM Power Market

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## Load Serving Entity (LSE)

PJM Member, including load aggregator or power marketer, that serves end-users in PJM Control Area to sell electric energy to end-users in PJM Control Areas.



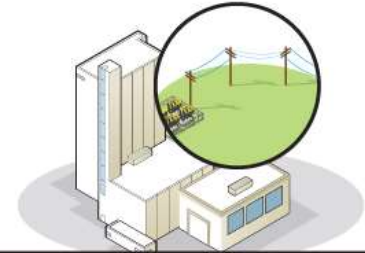
## End Use Customer

Cannot directly participate unless it is a PJM Member (e.g. as an LSE or CSP).



## Curtailment Service Provider (CSP)

PJM Members that act on behalf of end-use customers who wish to participate in PJM Load Response opportunities.



## Electric Distribution Company (EDC)

PJM Member that owns, or leases, electric distribution facilities used to provide electric distribution service to electric load in PJM Control Areas.

### Who can be a CSP?

- » Any LSE
- » Any EDC
- » Any third party (*PJM member*) specializing in Demand Response

# Demand Response and Energy Efficiency Revenue Opportunity by Wholesale Market Service

Wholesale Market	Demand Side Response	Energy Efficiency
Capacity	Yes	Yes
Energy	Yes	Cost Avoidance
Day Ahead Scheduling Reserves (30 min)	Yes	Cost Avoidance
Synchronized Reserves (10 min)	Yes	Cost Avoidance
Regulation	Yes	Cost Avoidance

*Customer may participate as Emergency and Economic DR and as EE*

## Demand Resources



14,118 MW or enough power for 5 million people or half the number of households in the state of Michigan



## Energy Efficiency



822 MW or enough to power 149,000 households about the number of households in the city of Cleveland Ohio

State	DR participation in wholesale market	Electric Supply company	Dynamic retail sales
DC	Yes	Yes	Pending
DE	Yes	Yes	Yes
IL	Yes	Yes	Yes
MD	Yes	Yes	Yes
MI	Yes	Yes	No
NJ	Yes	Yes	No
PA	Yes	Yes	Yes
OH	Yes	Yes	Yes
VA	Yes	Limited	Pending

**Delivery year 2011-12**

**10,791.1 MW  
91%**

IN	Limited (case by case approval required)	Limited	No
NC	Limited (case by case approval required)	No	No
KY	Utility only	No	No
TN	Utility only	No	No
WV	Utility only	No	No

**1,032.8 MW  
9%**