

Discussion Terms Summary

Capacity / Demand

Capacity power supply is based on the amount of power that must be made available to a customer and the amount the customer actually uses. It is the difference between a customer's peak load during the billing period and the normal hour to hour usage during the same period. The capacity charge is for the power that has been made available to the customer. Although it may not be used, it has been generated and transported and therefore is an expense to the provider.

Base, Intermediate and Peak Power Capacity

- Base power is continuous power and is produced at a constant rate
- Intermediate Power is power demand over and above base power
- Peak Power is power above intermediate and satisfies the highest demand

Specific types of power plants are used to generate power among these ranges. They are prioritized based on their operational and economic properties. For example, hydro-electric, coal and nuclear power plants run base load and some coal-fired and all gas-fired power plants run intermediate load, and resources such as solar, diesel, and gas turbine facilities cover peak loads.

Capacity needs in each range are estimated by AMP based on the systems peak load or demand. 2016 peak demand was 43.50MW. The capacity needs were as follows:

- Base needs = 14.6MW
- Intermediate needs = 7MW
- Peak needs = 21.9MW

In 2017 Hudson's peak load was 41.6MW which occurred on July 21. At present, Hudson has sufficient base capacity but can use both intermediate and peak capacity. Both of which can be satisfied with renewable energy sources such as solar.