

## 4.4 Peak Load Pricing

The demand for many goods is larger during certain times of the day or week. For example, roads are congested during rush hours during the morning and evening commutes. Electricity has larger demand during the day than at night. Ski resorts have large (peak) demands during the weekends, and smaller demand during the week.

**Peak Load Pricing** = charging a high price during demand peaks, and a lower price during off-peak time periods.

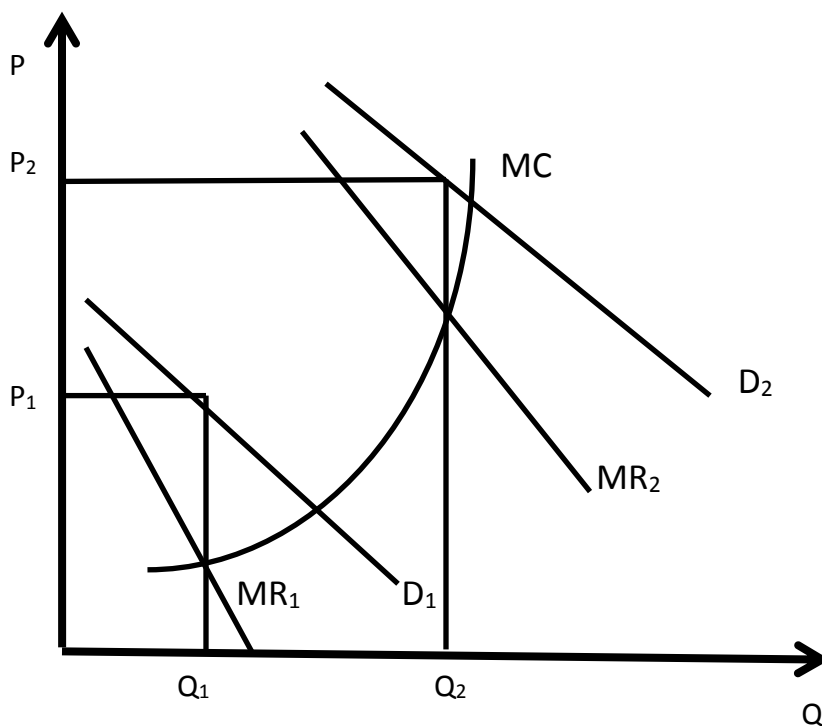


Figure 4.7 Peak Load Pricing

Figure 4.7 describes the demand for electricity during the day. Demand curve  $D_1$  represents demand at off-peak hours at night. The electricity utility company will charge a price  $P_1$  for the off-peak hours. The costs of producing electricity increase dramatically during peak hours. Electricity generation reaches the capacity of the generating plants, causing larger quantities of electricity to be expensive to produce. For large coal-fired plants, when capacity is reached, the firm will use natural gas to

generate the peak demand. To cover these higher costs, the firm will charge the higher price  $P_2$  during peak hours. The same graph represents a large number of other goods that have peak demand at different times during a day, week, or year.

Economic efficiency is greatly improved by charging higher prices during peak times. If the utility were required to charge a single price at all times, it would lose the ability to charge consumers an appropriate price during peak demand periods. Charging a higher price during peak hours provides an incentive for consumers to switch consumption to off-peak hours. This saves society resources, since costs are lower during those times.

An example is electricity consumption. If consumers were charged higher prices during peak hours, they are able to shift some electricity demand to night, the off-peak hours. Dishwashers, laundry, and bathing can be shifted to off-peak hours, saving the consumer money and saving society resources. Electricity companies also promote “smart grid” technology that automatically turns thermostats down when individuals and families are not at home... saving the consumer and society money.

The next section will discuss a two-part tariff, or charging consumers a fixed fee for the right to purchase a good, and a per-unit fee for each unit purchased.