

# ***PUBLIC UTILITY ECONOMICS***

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a system peak will develop, even if the rates charged during such times include nothing for demand costs. Thus, as the Association states, this method "... allocates the cost to all customers whose decisions to consume more or less are liable to affect the undertaking's expenses, and only to such consumers."<sup>38</sup> Accordingly, no demand costs would be allocated to off-potential peak periods, although the E.R.A. Method provides that any amount could be allocated to such periods as judgment might indicate. Proponents of this method have suggested that it could be refined by zoning the potential peak periods to reflect differing degrees of peak potentiality.

More specifically, the E.R.A. Method is based upon consumption and the highest thirty-minute peak demand during potential peak periods. The symbols and equations employed are similar to those in Greene's Consumption and Demand Method, except that they apply only to the potential peak period. Like Greene's method, the E.R.A. Method takes into consideration the factors of demand and use. By largely excluding from consideration all periods in which no peak potentiality is judged to exist, the E.R.A. Method is superior to the Consumption and Demand Method from the standpoint of the time-of-use factor.

**F. Some Tests of Demand-Cost Allocation Methods.** Standards for testing the reasonableness of methods of allocating demand costs have been developed by Dr. Henry Herz, consulting economist. These standards are intended to apply generally, rather than to any one of the public utility industries. Dr. Herz would judge the reasonableness of an allocation

method in terms of its capacity to meet the following principles:

(1) All utility customers should contribute to capacity costs.

(2) The longer the period of time that a particular service pre-empts the use of capacity, the greater should be the amount of capacity costs allocated to that service.

(3) Any service which makes exclusive use of a portion of capacity should bear all the demand costs assignable to that portion of capacity. Thus, a 100 per cent load-factor service should be allocated the entire demand costs associated with the portion of capacity pre-empted, but no more.

(4) The allocation of capacity costs should change gradually with changes in the pattern of sales as the market develops. As noted previously, the original Peak Responsibility Method is prone to produce erratic results with changes in the timing of systems peaks.

(5) The capacity costs allocated to one class of service should not be affected by the way in which the remaining capacity costs are allocated to other classes.

(6) More demand costs should be allocated to a unit of capacity pre-empted during a peak period than to one pre-empted off peak.

(7) Service that can be restricted by the utility should be allocated less in demand costs as the degree of restriction increases. This principle goes to the difference between firm service (assured availability) and interruptible and other forms of restricted-availability service. Interruptible service is supplied under agreements which permit curtailment or cessation of delivery by the supplier. There are differing priorities of possible curtailment of deliveries. This seventh principle states, in effect, that a unit of firm demand for service should be allocated a greater share of capacity costs than a unit of demand which cannot

<sup>38</sup> As quoted in: Cost Allocation Committee of the Engineering Committee of the National Association of Railroad and Utilities Commissioners, "Comparison of Methods of Allocating Demand Costs (Electric Utilities)" June, 1955, p. 47.