POWER PLANT STATUS & PERFORMANCE
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Course: Operators of Geothermal Power Plant

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Overview

- Plant Status
- Capacity vs Period Hours
- Capacity Factor
- Equivalent Availability Factor
- Equivalent Forced Outage Rate

Plant Status

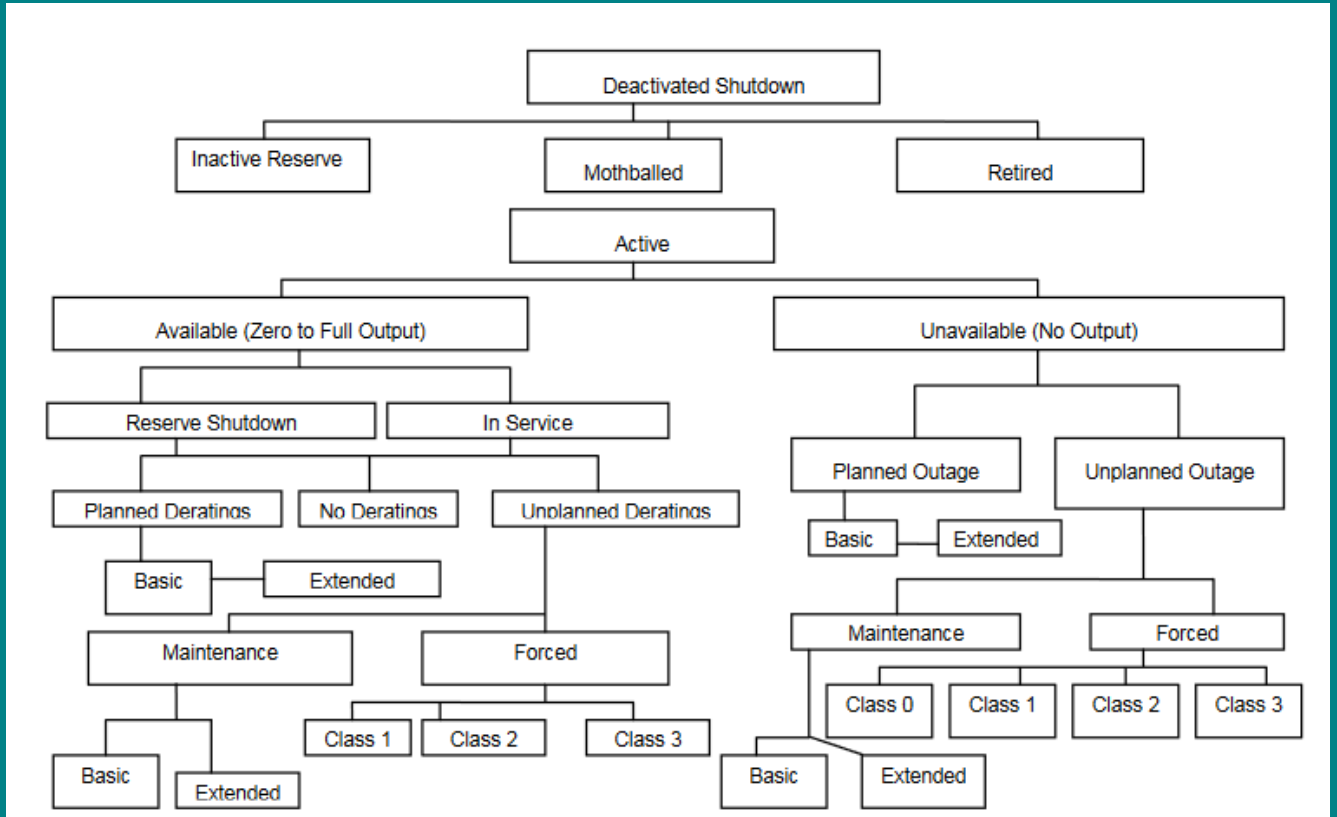

Figure 1—Relation between unit states

Capacity VS Period Hours

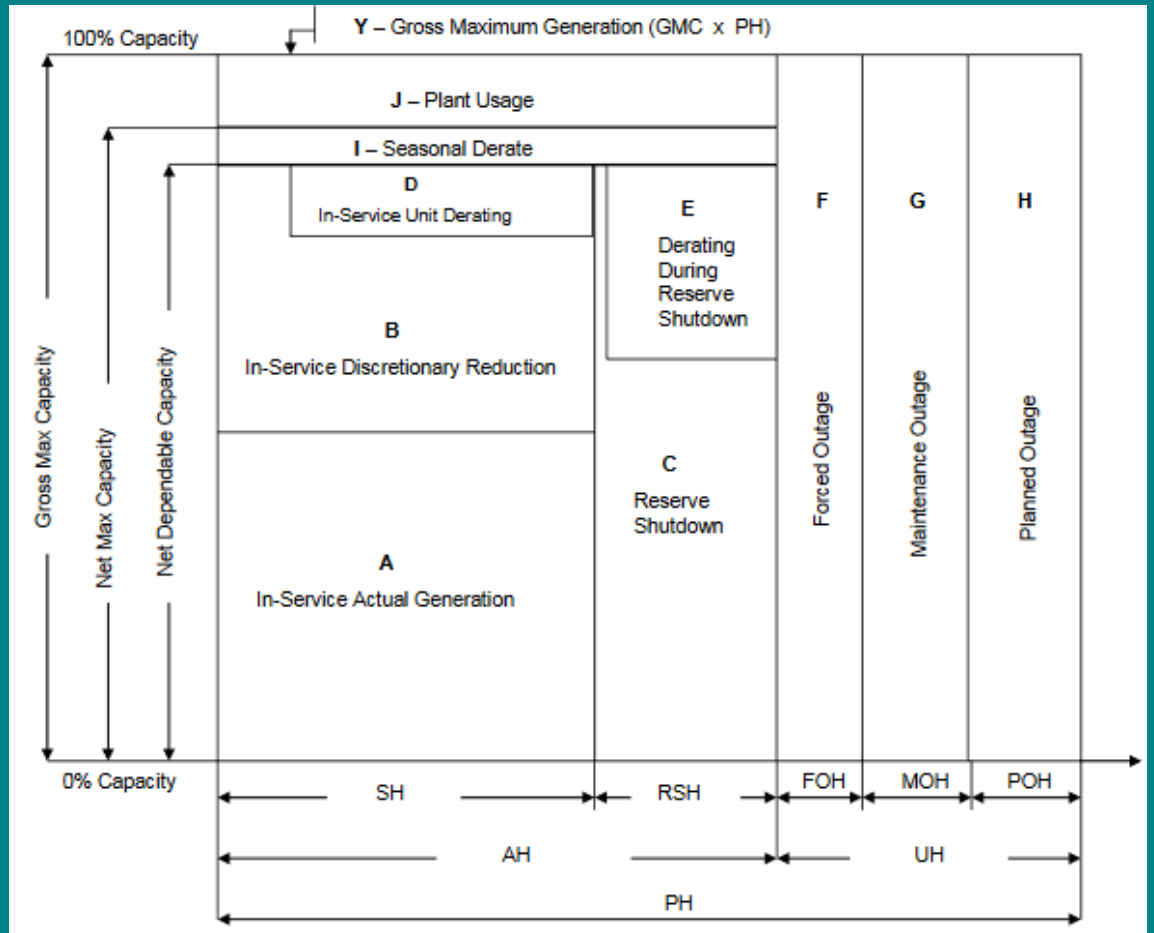

Figure C.1—Area for categories of capacity versus period hours

Capacity Factor

$$NCF = \left(\frac{NAAG}{NMG}\right) \times 100$$

The net energy that was produced by a generating unit in a given period (NAAG) as a fraction of the net maximum generation (NMG). NMG is the period hours (PH) times the net maximum capacity (NMC)

Equivalent Availability Factor

The EAF is the fraction of maximum generation that could be provided if limited only by outages and deratings:

$$EAF = \left(\frac{AG}{MG}\right) \times 100$$

$$EAF = \left(\frac{AH - (EUNDH + ESDH)}{PH}\right) \times 100$$

Equivalent Forced Outage Rate

A measure of the probability that a generating unit will not be available due to forced outages or forced deratings.

$$EFOR = \left(\frac{FOH + EFDH}{SH + FOH + ERSFDH} \right) \times 100$$

THANK YOU