

condition, etc) of the resources in question. The CA ISO strongly prefers use of net dependable capacity or unforced capacity as these measures include some consideration of the actual output that can be expected from particular resources based on historic production.

Second, the CA ISO supports for now a 17% level based on dependable capacity. This level is only slightly below the target reserve level initially proposed by the CA ISO when it first considered creating a resource adequacy requirement. The CA ISO has recommended a capacity reserve level of 10% to 12% based on “unforced capacity” in the forward (month-ahead) time frame and about 10% based on “available capacity” in the day-ahead time frame. These levels were intended to assure compliance with Western Electricity Coordinating Council’s (WECC’s) operating reserve (and North American Electric Reliability Council’s (NERC’s) regulation control performance) criteria. The CA ISO calculates that a 12% reserve level based on “unforced capacity” translates to an 18% level based on “dependable capacity”³. Thus, until further experience is obtained about the adequacy of the 17% of “dependable capacity” figure, the CA ISO considers that it is a reasonable starting point.

Finally, the CA ISO strongly supports making the target reserve level applicable on a monthly basis based on a utility’s peak monthly load. As described elsewhere in this testimony, to ensure that adequate resources will be in place in real time, the CA ISO recommends that, at least one month prior to the operating month, the utilities be required to demonstrate that they have procured sufficient capacity to meet their peak load and target reserve level.

In sum, consistent with D.02-10-062, the CPUC should now revise the target reserve level to adopt the final recommendation of the CPA that each utility be required to demonstrate using appropriate criteria how it will “achieve Dependable Capacity in an amount equal to no less than 17% in excess of its peak needs (i.e. 117%), as measured against its projected monthly

³ The dependable capacity is the operable capacity of the resource given the ambient and other operational conditions such as environmental or seasonal conditions and station service and auxiliary load. For example a thermal unit with a nameplate capacity of 500 MW may be able to produce 450 MW on a continuous basis on a hot summer day. The unforced capacity is the dependable capacity derated by the average annual forced outage rate. As an example, assume an average annual forced outage rate of 5% and a reserve margin of 18% based on dependable capacity; the corresponding reserve margin based on unforced capacity would be 12%: $1.18 * (1-0.05) = 1.12$. The CA ISO recommended a monthly 10-12% unforced capacity level to assure achievement, accounting for load forecast error, of a 7% contingency reserve and an adequate regulating reserve.