



Local capacity assessments with availability-limited resources

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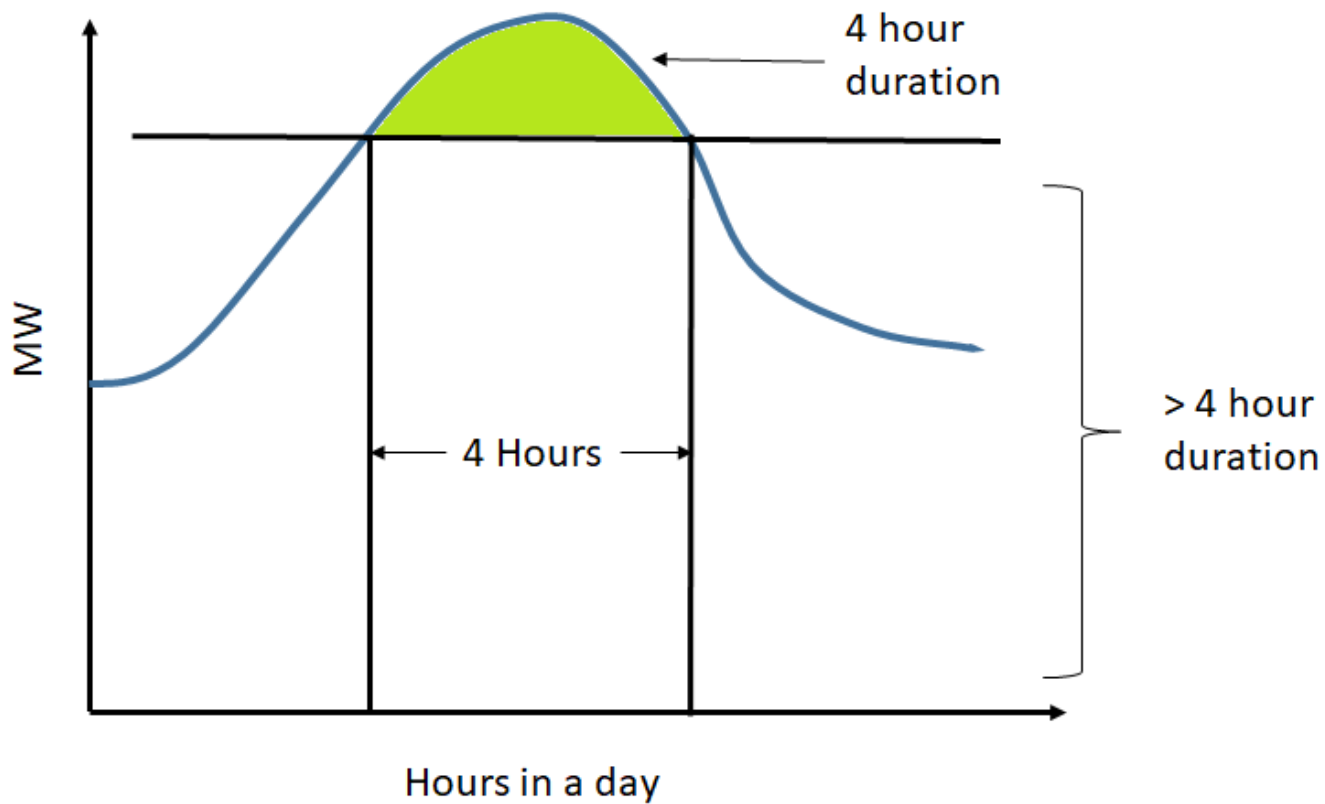
CPUC RA Track 3 Working Group
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Review of issue

- RA program does not fully consider resources' availability limitations and ability to serve local area needs
- Availability-limited resources are those with significant dispatch limitations such as limited duration hours or event calls that would limit the resources' ability to respond to a contingency event within a local capacity area
- RA requirements are only based on meeting peak capacity needs in MWs and not energy needs (MWhs) all hours of the day

Review of issue (cont.)

Hourly load shape demonstrating four hour minimum availability threshold



The ISO performs transmission planning studies annually to determine local area RA procurement needs

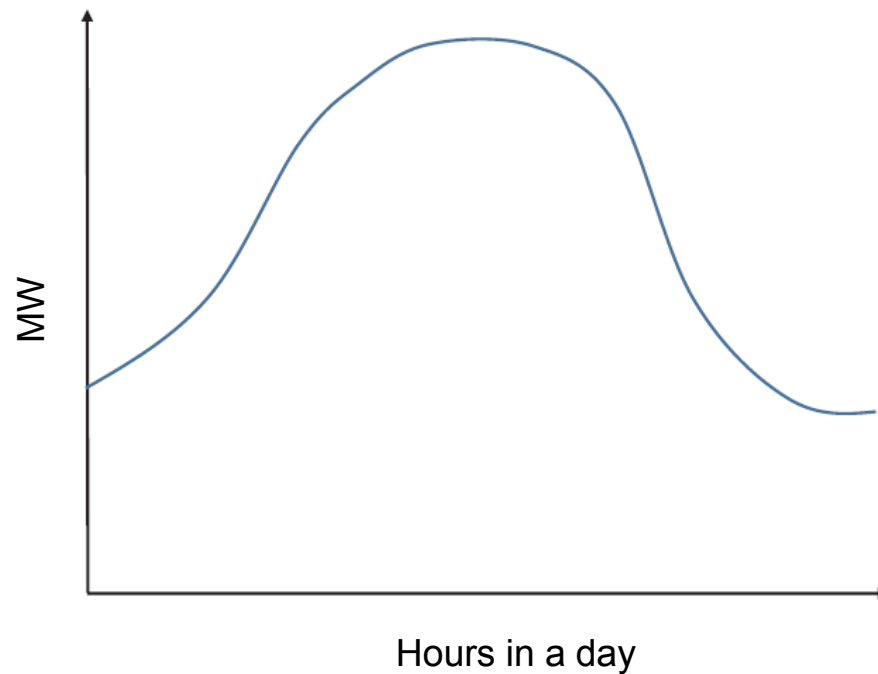
- Local capacity technical (LCT) studies determine the minimum amount of capacity needed in each local area to ensure reliable grid operations
- Study criteria, methodology, assumptions, and results are reviewed in stakeholder process
- LCT studies look out one and five years forward every year, and ten years forward every other year
- Current study determines capacity amount in MWs, based on 1-in-10 peak load forecast

The ISO plans to maintain the existing LCT study process with certain additions that inform availability needs in local areas

- The ISO will incorporate hourly load and available resource data into the LCT study process to inform the availability needs in local areas
- After LSEs procure local RA, the ISO will model load and resource dispatch for each hour in the power flow model to confirm dispatch meets local capacity needs
- The ISO will use the existing process to allow LSEs to procure any deficiencies found

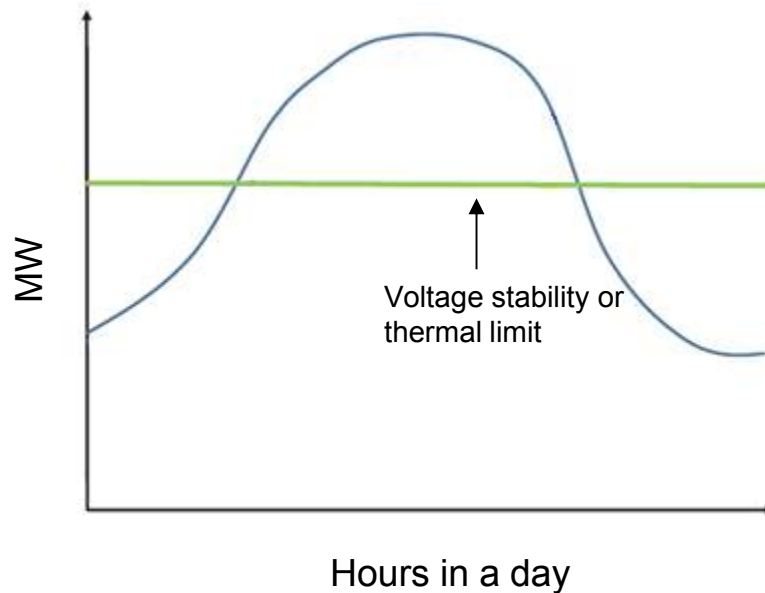
Steps for providing hourly load and available resource data

1. Determine hourly net load shape in local area



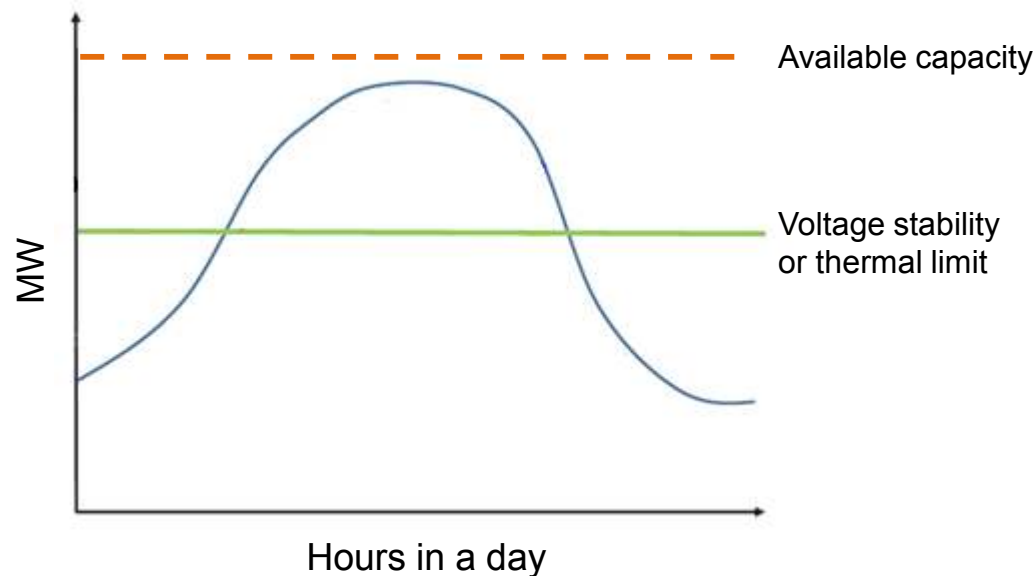
Steps for providing hourly load and available resource data (cont.)

2. Determine voltage stability/thermal area load limit to derive load that must be served by local capacity resources



Steps for providing hourly load and available resource data (cont.)

3. Determine available MWs of capacity from resources in local area using generation expected to be online during study period



Additional data will help guide resource procurement decisions

- Informs quantity of capacity in MWs and energy in MWhs needed in local capacity areas
- Informs longer term procurement and investment decisions by providing greater transparency into resource duration needs multiple years out

Topics and questions for consideration

- To minimize backstop procurement, what requirements should the CPUC consider to ensure LSEs have diverse portfolios and don't over rely on availability-limited resources?
 - Application to local areas and sub-areas?
 - Disaggregation and counting rules for local versus system
- Eligibility of resources with charging limitations
- Interactions between availability-limited and use-limited resources generally