Staff Overview Planning Standards Table 1, footnote b

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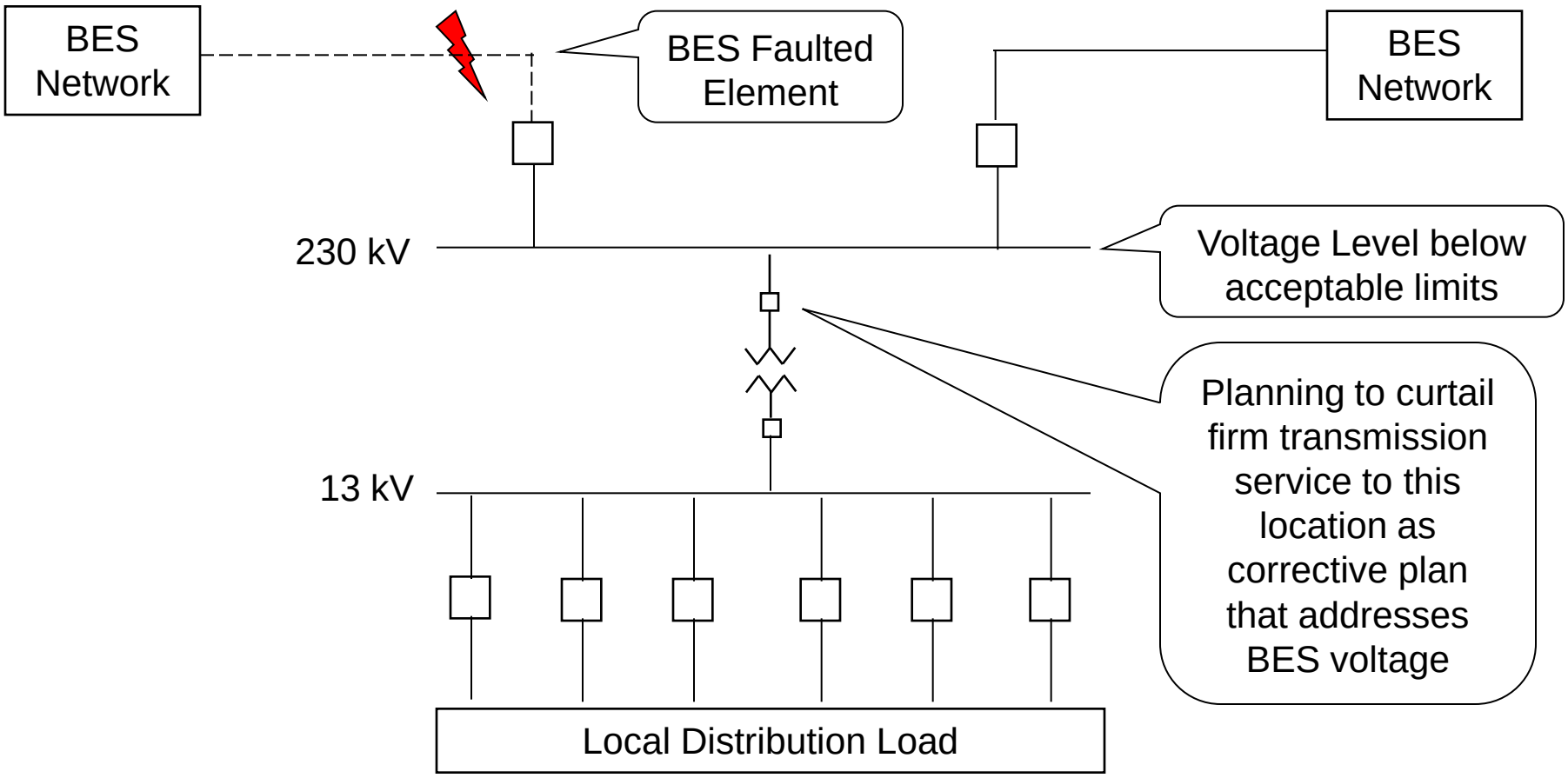
Background on Table 1 footnote b

1. The output of Planning standards include identification of timely solutions needed to assure Reliable Operation for all forecasted load levels, critical system conditions, and identified contingencies (TPL Standards)
2. Reliable Operation is associated with all BES elements being within applicable thermal, voltage and stability limits to avoid “evil three” (Section 215, FPA)
3. Firm Transmission Service (FTS) is highest quality of service with no **planned** interruptions (NERC Glossary)
4. The ERO stated that “NERC standards, including footnote (b), are not intended to endorse or approve planning the interconnection using radial configurations as a preferred method for reliably serving load, nor do NERC standards consider load shedding acceptable for a single contingency”. (NERC comments to the Staff Preliminary Assessment at 57-58)
5. Under limited/specific scenarios it may not be economic to invest in BES facilities to ensure service to all firm load. However, such scenarios are based primarily on economics, not reliability (FERC Order 693, P1792)

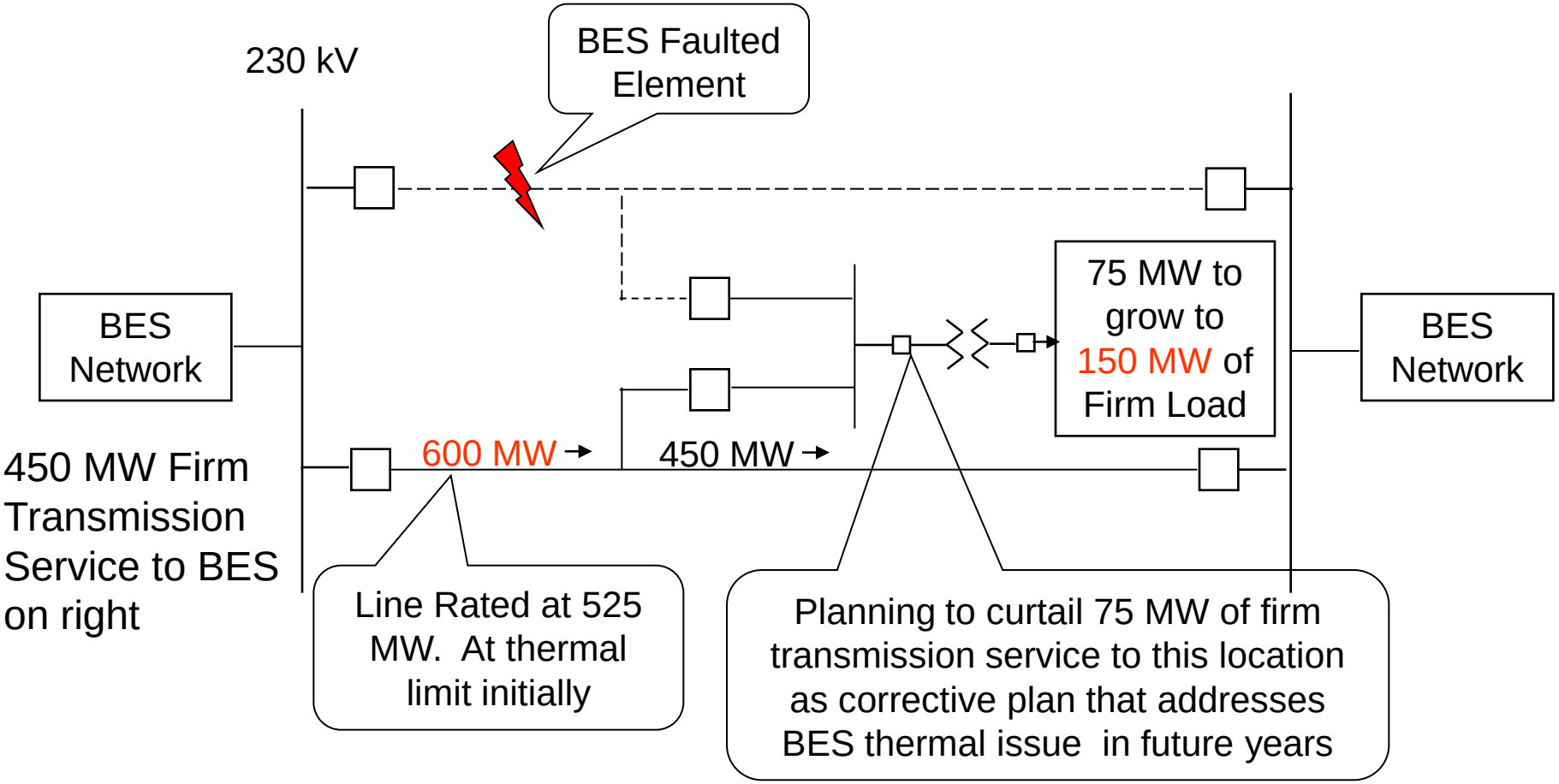
Commission Determinations

1. Reliability Standards for **real time** operations requires firm load shedding, pursuant to operating procedures, in response to unplanned events to preserve the integrity of the BES (TOP and EOP Standards)
2. Based on the record and for the **planning** time frame, the Commission believes that the transmission planning reliability standard should not allow an entity to plan for the loss of non-consequential load in the event of a single contingency (FERC Order 693, P1794)
3. Application of Demand Side Management and non-firm transmission service are types of acceptable corrective action plans (FERC Order 693, P1232)
4. Commission clarified that a transmission planning standard may allow for exceptions on a case-by-case basis (FERC Order RM06-16-012, P21)

Addressing a BES Voltage Limit in the Planning Time Frame



Addressing a BES Thermal Limit in the Planning Time Frame



Summary

1. Entities should not **plan** to curtail firm transmission service as their corrective plan to avoid exceeding thermal, voltage or stability constraints of BES elements for any forecasted load, critical system condition, etc, after a single contingency
2. Commission clarified that a transmission planning standard may allow for exceptions on a case-by-case basis
3. Demand side management or interruptible loads are types of acceptable corrective plans in both the planning and real time operating time frames to avoid exceeding thermal, voltage or stability constraints of BES facilities
4. Load shedding, as a last resort, in **real time operations** is both required and expected by the Commission to preserve the integrity of the BES