



NGRID Ramp Rate Policy Discussion

December 1st, 2021

Agenda

- Background
- Issues with Current Policy
- Recommendations for a Fair Policy

Background

- NGRID instituted a 2% of nameplate per second ramp rate in ESB 756 in December 2020
 - This was not actively discussed at the TSRG or with industry members
 - Applies to all new ESSs seeking interconnection through the NGRID distribution system in MA and RI and stated existing ISAs will remain unconstrained
 - Many projects with signed ISAs have been pulled into restudies unrelated to their proposed operation and the 2% ramp rate is applied at that point
 - Applies to both AC-coupled and DC-coupled ESS
- NGRID has cited two reasons for this ramp rate restrictions:
 - Voltage flicker concerns on the interconnecting feeder
 - System outage events where ramp rates could be problematic to the Local Control Center

Issues with Current Policy

- Inconsistent with the long-standing DG interconnection process of studying projects with different operational characteristics
 - Developers propose sites with specific parameters (MW size, ramp rate requirements, protection/relay schemes, market/program participation, etc.)
 - Utilities study those parameters and provide cost for interconnection
 - **Voltage flicker tests have always been a part of this process for both PV and ESS**
- Voltage flicker has existed prior to storage interconnecting to the distribution system but is the only one that is limited to a specific ramp rate
- NGRID instituted 2% and has since verbally committed to updating the limit to 2.6% based on their own distribution analysis which has not been finalized in ESB 756
- Current policy dramatically reduces market participation, exposes sites to demand charges and impacts storage's ability to meet policy goals

Recommendations for a Fair Policy

- Remove system wide ramp rate limitation
- ESS should be treated like any other DG parameter during the System Impact Study phase
 - Study ramp rate requested by developer during the initial flicker test
 - If the flicker test fails, reduce the ESS ramp rate until the flicker test passes
 - Provide results to developer and discuss options for next steps
 - Maintain new ramp rate limit or;
 - Discuss upgrades developer can pay for to increase ramp rate capability on a feeder such as capacitor banks and regulators
- Institute ramp rate limits during reconnection of DG to the grid after an outage
 - Can be accomplished with the existing Soft-Start Ramp Rate limit for all other inverter-based technologies