

Joint Grid Code Review Panel #3 2021

Welcome to all members

02 November 2021

Agenda

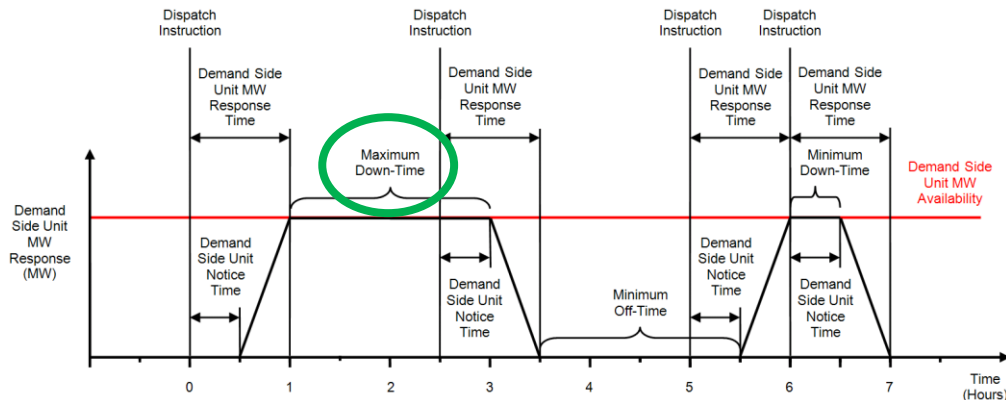
Time	Topic
09:30 – 10:15	<p>Introduction: 10 mins</p> <ul style="list-style-type: none">a. Welcome Members;b. Minutes and Actions from <u>Previous Meeting</u> (go to 20 July 2021). <p>Discussion Item: 20 mins</p> <ul style="list-style-type: none">a. DRAI Modification Proposal – DSU Maximum Down Timeb. FERA Modification Proposal - Reduction of Aggregator Limit to 1 MW <p>Updates: 10 mins</p> <ul style="list-style-type: none">a. Definition of Register Capacity Review;b. CRU Update;c. Utility Regulator Update; <p>AOB 5 mins</p>

Discussion - DSU Maximum Down Time

Modification Proposed by DRAI



MPID 293: DSU Maximum Down Time



What's the issue?

- Grid Code requires all DSUs to have a Maximum Down Time ≥ 2 hours
- This made sense historically, under the Capacity Payment Mechanism, but:
 - It's **not necessary** now, because the CRM applies heavy duration-based de-rating
 - It's **causing a barrier** to demand-side provision of fast ancillary services
 - It's **inconsistent** with the treatment of other resources with similar capabilities – e.g. batteries

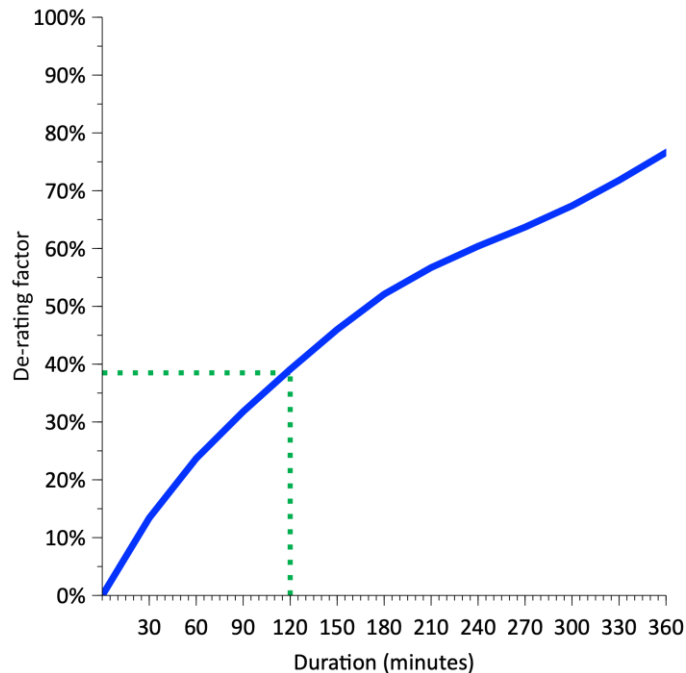
MPID 293: DSU Maximum Down Time

Table 19 – De-Rating Curves for Other Storage Units and DSUs with Maximum Down Time ≤ 6 hours

	Hours of Storage												
Initial Capacity (IC) (MW)	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0 or greater
0 ≤ IC ≤ 10	0	0.141	0.242	0.323	0.396	0.465	0.525	0.569	0.605	0.636	0.672	0.718	0.770
10 < IC ≤ 20	0	0.139	0.241	0.321	0.394	0.462	0.523	0.567	0.603	0.634	0.670	0.716	0.767
20 < IC ≤ 30	0	0.132	0.233	0.313	0.385	0.453	0.513	0.558	0.595	0.627	0.664	0.707	0.754
30 < IC ≤ 40	0	0.129	0.230	0.309	0.380	0.448	0.508	0.554	0.590	0.623	0.660	0.702	0.747
40 < IC ≤ 50	0	0.125	0.226	0.305	0.376	0.442	0.503	0.549	0.585	0.619	0.657	0.697	0.740
50 < IC ≤ 60	0	0.121	0.222	0.300	0.371	0.437	0.497	0.544	0.581	0.615	0.653	0.693	0.733
60 < IC ≤ 70	0	0.118	0.218	0.296	0.366	0.432	0.492	0.540	0.576	0.611	0.650	0.688	0.726
70 < IC ≤ 80	0	0.115	0.215	0.292	0.362	0.428	0.488	0.536	0.573	0.608	0.647	0.684	0.721
80 < IC ≤ 90	0	0.113	0.212	0.289	0.360	0.425	0.485	0.532	0.570	0.606	0.645	0.682	0.718
90 < IC ≤ 100	0	0.111	0.209	0.286	0.357	0.422	0.481	0.529	0.567	0.604	0.642	0.679	0.714
100 < IC ≤ 110	0	0.109	0.205	0.283	0.354	0.420	0.478	0.526	0.564	0.602	0.640	0.677	0.711
110 < IC ≤ 120	0	0.107	0.202	0.279	0.351	0.417	0.475	0.522	0.562	0.600	0.638	0.674	0.708
120 < IC ≤ 130	0	0.106	0.201	0.278	0.349	0.415	0.472	0.520	0.559	0.598	0.636	0.672	0.705
130 < IC ≤ 140	0	0.107	0.201	0.278	0.349	0.414	0.471	0.518	0.557	0.596	0.634	0.670	0.703
140 < IC ≤ 150	0	0.109	0.201	0.278	0.349	0.413	0.469	0.516	0.556	0.595	0.632	0.668	0.701
150 < IC ≤ 160	0	0.110	0.202	0.278	0.349	0.412	0.467	0.514	0.554	0.593	0.630	0.666	0.699
160 < IC ≤ 170	0	0.111	0.202	0.278	0.349	0.411	0.465	0.512	0.552	0.591	0.628	0.664	0.697
170 < IC ≤ 180	0	0.110	0.200	0.276	0.346	0.408	0.461	0.507	0.548	0.587	0.625	0.660	0.692
180 < IC ≤ 190	0	0.107	0.195	0.271	0.341	0.402	0.455	0.501	0.542	0.581	0.619	0.654	0.687
190 < IC ≤ 200	0	0.103	0.191	0.267	0.336	0.396	0.449	0.495	0.536	0.575	0.613	0.648	0.681

Short-duration DSUs are very harshly de-rated

- A DSU that can deliver 25 MW for 10 minutes would get a de-rating factor of 0.044 – i.e. it would count as only 1.1 MW in the CRM.
- This means nobody would offer capacity resources with artificially low maximum durations.



MPID 293: DSU Maximum Down Time



What change is proposed?

- Remove CC.7.4(e) [EirGrid] and CC13.1(e) [SONI], so DSUs can specify any value for Maximum Down Time (and be de-rated accordingly)

What effects do we expect?

- It will allow provision of fast DS3 services by demand-side resources that would otherwise be excluded or have to use silly workarounds (e.g. data centre UPSs).
- This means there will be new DSUs providing these services, using additional flexible resources that otherwise wouldn't participate.
- This should increase competition to provide fast DS3 services.

What effects do we not expect?

- It will not cause any existing DSUs to reduce their Maximum Down Times below 2 hours.
- It will not cause any new DSUs that can achieve ≥ 2 hours to choose to declare a shorter Maximum Down Time.
- It will not in any way reduce the quantity of demand-side resources available for dispatch, or the durations for which they are available.

Questions

Discussion - Reduction of Aggregator Limit to 1 MW

Modification Proposed by FERA



Grid Code Modification

Removal of Demand Side and Generator Aggregator minimum size

Eirgrid **MPID 299**

SONI **SPID 01-2021**

Current requirements

- SONI Grid Code – references in ‘Glossary and Definitions’
- Eirgrid Grid Code – references in ‘Definitions’
 - Similar wording for the following definitions
 - “Aggregated Demand Site”
 - “Aggregated Generating Unit”
 - “Demand Side Unit”
 - “Demand Side Unit Operator”
 - “Generator Aggregator”
- The requirement is to have a MW capacity of not less than 4MW

Opportunities

- There is a push to increase the use of renewable generation available via increasing the SNSP limit.
- Provision of DS3 services enhances the ability to run with higher SNSP levels.
- DS3 services are contracted at 1MW and above for each service.
 - DS3 services are currently non-discriminatory on technology.
- Capacity Market awards from 0MW upwards
- Capacity Market derates on duration of unit

Aggregated Units

- There are a number of Individual Demand Sites (IDS) that are aggregated to provide dispatchable 'energy'.
 - Each IDS can have different DS3 capabilities.
 - Each IDS can have different duration capabilities.
- Grouping these to form a 4MW unit could mean limiting the DS3 provision and the duration capability to the 'lowest' denominator.
- This doesn't allow the most effective support to the operation of the System.

Example

- 7 sites in total. Each 0.6MW, equates to 4.2MW which achieves Grid Code requirements for a DSU registration.
- DS3 ability
 - 3 sites can perform **Dynamic** DS3 response, 1.8MW
 - 4 sites can perform **Static** DS3 response, 2.4MW
 - Of these 4 sites, they may have different duration for dispatch
 - 6-hour duration
 - 2-hour duration

Impact of modifications

- There are likely to be no significant changes required to the IT systems of SONI & Eirgrid.
- EDIL can handle declarations down to 1MW for all registered units.
- Scheduling is based on declared availability rather than the registered MW capability
- There is likely to be an increase in registered units in the markets.
- Costs for this are carried by the User / Participant.

Proposal

- The references to 4MW in the definitions are to be replaced with 1MW.
- Removal of TSO agreement for less than 4MW, in the AGU definition.

Reason to modify

- No other technology has a lower MW limit applied to their registration
- This could be viewed as discrimination

Questions

Update Items

Updates

1. Definition of Register Capacity Review;
2. CRU Update;
3. Utility Regulator Update.

Questions

AOB