

**Grid Code
Modification
Recommendation Form**



Title of Recommended Proposal: MPID 327 DSU Notice to React

MPID: 327

Date:	17/02/2025
Recommended at GCRP Meeting No.:	GCRP Meeting 24/09/2024
Grid Code Version:	Version 14.2
Grid Code Section(s) Impacted by Recommended Proposal:	SDC2 and definitions

The Reason for the Recommended Modification:

To ensure system stability, it is essential that the sufficient MWs are available to the system to meet the demand needs when called upon.

From time-to-time, situations occur where a unit fails to initiate the relevant response (e.g. change in MW output for Generation Units and/or MW consumption by a Demand Side Unit). As a result, the TSO then must source the additional MW change from units which are lower in the merit order at a much higher cost.

The purpose of this modification is to:

- Ensure accurate MW shown as available to System Operator
- Prevent unavailable MW from been considered or setting the Imbalance Pricing.
- Remove payments for shutdown cost and Imperfections when a DSU fails to react.
- Increase the automation of scalers applied for certain DS3 products.

Please note a similar process has been in effect for over a decade for Generator units.

Given the increasing importance and reliance on **Demand Side Units** for the safe and secure operation of the System, it is vital that action is taken when a DSU fails to instigate a response.

This modification takes into consideration the variability of the processes of the **Demand Side Units** and their Notice Time by allowing a reasonable deadband of 15 minutes (25% of the maximum allowed **Demand Side Unit MW Response Time** of 1 Hour as defined under CC.7.4(g)).

This will be achieved by the introduction of a “Failure to Follow Notice to React” Instruction, as described below:

- The TSO issues a dispatch instruction to Demand Side Unit to instigate a **Demand Side MW Response** from zero MW.
- If a **Demand Side Unit** fails to instigate a response within 15 minutes of the effective time of this dispatch instruction subject to **Demand Side Unit Notice Time**, it would be deemed non-complaint with the associated **Dispatch Instruction**.
- A “Failure to Follow Notice to React” Instruction would subsequently be issued to the Demand Side Unit via EDIL with effective time plus 1 minute of the Dispatch Instruction.
- The **Demand Side Unit** would then be deemed unavailable until the issue is rectified. This new **Demand Side Unit MW Availability** declaration of 0 MW would remove the **Demand Side Unit** from consideration within the Scheduler, Imbalance Price and Balancing Market, until the issue effecting the **Demand Side Unit MW Availability** was rectified.
- Once the **Demand Side Unit** has resolved the issue, they can redeclare and be considered for dispatch by the TSO.

Note: for context, the following Grid Code obligations and definitions already exist are:

- SDC2.4.2.15 User Plant Changes
Each User at its Control Facility will, without delay, notify the TSO by Electronic Interface, telephone or by facsimile transmission of any change or loss (temporary or otherwise) to the operational capability of its Plant including any changes to the Technical Parameters and/or Additional Grid Code Characteristics Notice data of each of the User's Plant (in the case of Technical Parameters, by the submission of a Technical Parameters Revision Notice) indicating (where possible) the magnitude and the duration of the change. In the case of CDGUs already Synchronised to the System, each Generator, in respect of its Generating Units, must also state whether or not the loss was instantaneous.
- SDC2.A.12.1:
For Demand Side Units, the Dispatch Instruction issue time will always have due regard for the Demand Side Unit Notice Time declared to the TSO by the Demand Side Unit Operator as a Technical Parameter or as part of Additional Grid Code Characteristics Notice data.
- Demand Side Unit Notice Time:
The time as specified by the Demand Side Unit Operator in the Technical Parameter and is the time it takes for the Demand Side Unit to begin ramping to the Demand Side Unit MW Response from receipt of the Dispatch Instruction from the TSO.
- Demand Side Unit Ramp Time:
The time it takes for a Demand Side Unit to ramp to the Demand Side Unit MW Response. It is equal to the Demand Side Unit MW Response Time less the Demand Side Unit Notice Time.

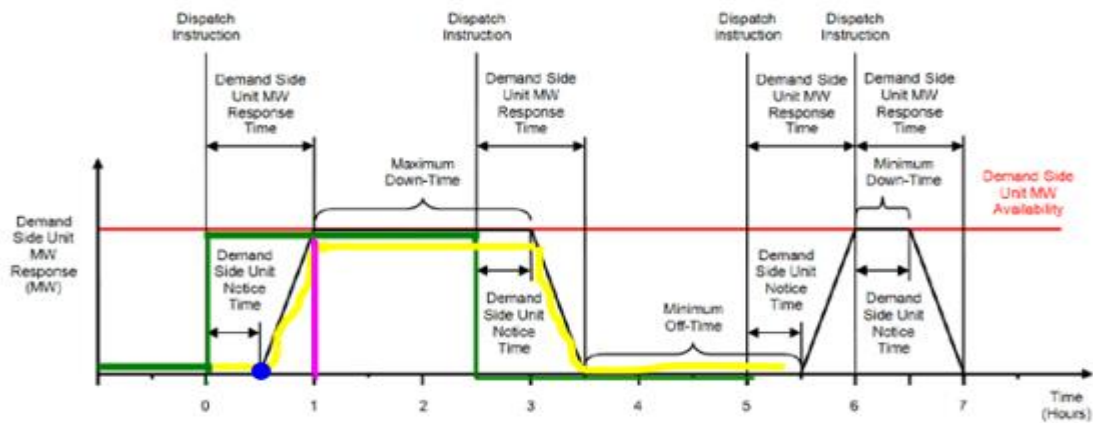
History of Progression through GCRPs, Working Group and/or Consultation:

MPID 327 was presented as a proposal at the Joint GCRP meeting, 24 September 2024.

There was a detailed discussion at the JGCRP meeting between Deirdre Hughes (TSO Representative and the proposer) and the DSU representatives. Further details are available as part of the published meeting minutes, which can be accessed on the [EirGrid Website](#).

Following the JGCRP and GCRP Meetings, the TSO engaged with the DSU representatives, regarding the progress of MPID327 Notice to React. Further details of these engagements are available below in the section "Summary Note of any Objections to the Recommended Change from GCRP Members or Consultation Responses".

In summary, the TSO discussed MPID327 Notice to React (blue mark) and and the DSU representatives proposed to consider a different measure (pink mark). The diagram below illustrates these:



Red line = Declared availability , Green Line = Dispatch Instruction and Yellow line = DSU Response

The TSO assessed these proposal against relevant Grid Code requirements for DSUs, as summarised in the table below:

DSU Grid Code Requirements	Trigger	Notice Time	Ramping Time	@ End of MW Response Time
● MPID 327 Notice to React	Plus 15mins deadband to initiate a response	✓	✓	N/A to this mod 100% is existing obligation
● DSU proposal	At end of DSU MW Response Time	✗	✗	Any response

Following this assessment, the TSO cannot support the option proposed by the DSU representatives, as alternative to MPID327 – Notice to React and have explained measures required to be taken by some DSU’s to be Grid code compliant based on existing obligations following examination of DSU sample dispatches presented by the TSO and DSU representatives. Being Grid code compliant to existing obligations would remove the need for DSU representatives to propose alternate modification proposals.

Summary Note of any Objections to the Recommended Change from GCRP Members or Consultation Responses:

During the JGCRP and GCRP meetings, the DSU representatives stated that they are broadly in favour of the proposed modification but suggested that the “Failure to Follow Notice to React” should be applied after the end of the **Demand Side Unit MW Response Time**, which is the sum of the **Demand Side Unit Notice Time** and the **Demand Side Unit Ramping Time**. This suggestion by the DSU representatives is further described later in this recommendation paper as DSU proposal.

Note: Under Grid Code clause CC.7.4. the **Demand Side Unit MW Response Time** cannot be greater than 1 hour, however, this 1 hour period can comprise of whatever ratio of Demand Side Unit Notice Time to Demand Side Unit Ramp Time that the Demand Side Unit Operator considers to be the most representative of the typical response of their Demand Side Unit(s).

Outcome of any GCRP Meeting Actions Relating to the Recommended Modification:

At the 24 September JGCRP meeting, EirGrid took the action to internally review the proposed modification, including considering DSU proposal, as suggested by the DSU representatives and to issue a revised modification proposal with the draft GCRP meeting minutes, to be issued on 08 October.

During the GCRP meeting, the TSO encouraged all members to review the revised modification and return comments by 22 October, the same deadline for the return of comments on the draft GCRP meeting minutes. If members did not raise any comments or concerns, the TSO would issue a recommendation paper to the CRU for decision.

On Friday, 11/10/2024, Patrick Liddy (DRAI and JGCRP Observer) replied to the JGCRP and GCRP Draft minutes, detailing a number of items in relation to the proposed MPID327. This was followed by a further response from Paul Troughton (ELENX and GCRP member – DSU representative) on 17/10/2024. The TSO subsequently engaged with Patrick Liddy, Paul Troughton and Vlastick Buzek (Viotas and GCRP member – DSU Representative) on 18 October 2024 and 25 November 2024, addressing all related items to this modification proposal and requested to provide examples of their alternative proposal. Summaries of these meetings are provided below:

1. The TSO presented:
 - The 16 months of data that was analysed and which demonstrated the importance of the modification;
 - Visual aids, such as graphs, of both Failure to “Follow Notice to React” modification proposals;
 - Examples, explanations and the relevant Grid Code clauses and definitions which support the TSO’s Proposal;
 - Examples, explanations and the relevant Grid Code references demonstrating that the DSU representatives proposal was not compliant with current Grid Code and advised DSU Operators of actions to remedy.
2. The DSU Representatives:
 - Provided three examples of Demand Side Unit profile when providing a response;
 - Discussed operational processes that take place when Demand Side Unit MW Response is called upon;
 - Challenged the TSO’s analysis of the data and interpretation of the relevant definitions within the Grid Code.
3. The TSO offered existing solutions to make the operational process discussed comply with Grid Code;
 - Changes to Technical parameters and Operational Certs; and
 - A within day solution.
4. The TSO explained in detail the impact of DSUs being non-compliant with Technical Parameters;
 - potential impact on system frequency, if several units behaved in this manner
 - DSUs are called upon based on their DSU Notice Time so demand reduction occurs in a stable manner
 - DSUs with short notice time can be called upon for short durations to arrest frequency events while another unit becomes available. An example was provided by the TSO demonstrating this in which a DSU with 2mins notice time was called upon for one hour, the expectation was a certain level of reduction would occur at the end of its 2 mins notice time but in reality, it started to respond at 58mins. The unit has a responsibility to ensure its technical parameters are a true reflection of capability and point 3 must be applied.
 - Its only technology type that can breach its technical parameters without penalty.
5. One of the DSU Representatives is subsequently investigating implementation of solutions proposed by the TSO;
6. While all parties gained a better understanding of the others position, an agreement could not be reached.

Following these meetings and a number of internal discussions regarding proposal by the DSU representatives, the **TSO** decided to proceed with the submission of the MPID327 for approval by the CRU

as it was presented at the 24 September 2024 JGCRP. There are several reasons for submitting the modification as was original proposed:

- Analysis of 16 months of data showed that 82 % of **Demand Side Units** would be compliant with the proposal. This figure could be increased to over 90 %, following the revision or additional sets of Technical Offer Data and/or Operational Certificate details for **Demand Side Unit Notice Time/ Demand Side Ramp Times** to be more reflective of the typical response of the **Demand Side Unit**.
- During both the 24 September GCRP meeting and the two post GCRP meetings with the DSU representatives, the **TSO** detailed the real-time solution where a within day issue occurs with the units technical capabilities. This solution is already in use by all other **Users** on the System.

The **TSO** gave the DSU representatives' proposal significant consideration but found that they cannot support this option as:

- For the propose of System Security in real time, this reduces reliability when called upon.
- It would not be Grid Code compliant, regarding the **Demand Side Unit Notice Time, Demand Side Unit Ramping Time and Demand Side Unit Response Time**. It may result in system security issues up to and including a shortfall. As a result, the **TSO** may be required to carry out high-cost actions.
- Unable to use the system scheduling tools use the **Demand Side Unit Notice Time and Demand Side Unit Ramp Time** to determine the optional schedule to dispatch **Demand Side Units**, in order to maintain system security whilst minimising cost at the end user.
- Currently, **Demand Side Units** receive full payment of their Shut down costs and potentially CPremium for the entire duration of the Dispatch Instruction regardless of their performance, resulting in overpayment.
- Taking advance of not been subjected to charges for non-compliance with their **Technical Offer Data** through Balancing Market.
- Delaying identifying issues with the unit until a lot later in the process leading to a reduced capability for the TSO to meet the shortfall by alternative action, putting the system at increased risk, that could be around an hour after effective time of Dispatch Instruction.
- The **TSO**, under the clean energy package and climate targets, will be increasingly reliant on demand response, including parameters that make up **Demand Side Unit MW Response**. The predictability and reliability of demand response is key to its scalability going forward.

Post the December Grid Code Review Panel meeting, the TSO drafted the recommendation paper and provided a copy of the draft to the DSU representatives to ensure that their views and/or concerns were appropriately represented. Patrick Liddy (CEO of DRAI and GCRP Observer) responded by email on 08/01/2025 stating:

"Unfortunately we don't think that your version adequately explains:

1. *That our object relates to the fact that the proposal would mean that some providers who meet the current requirements and provide reliable demand response to the TSO would be excluded due to this modification*

By having accurate DSU Technical Parameters i.e. TOD sets and Operational certs, that are reflective of the DSU capability, DSU would not trigger the issuing of the Failure to follow notice to react and this was demonstrated from the examples as provided by the DSU reps during our meetings in Quarter 4 of 2024. Recorded in this meeting minutes:

"The TSO advised the risk to system security if every unit behaved in this manner. The TSO relies on accurate Technical Offer Data (TOD) and operational cert details, so it knows when reduction is happening in a staggered **manner until Demand Side Unit MW Response Time has elapsed**. Every IDS within a DSU is tested to comply with its individual notification time as defined in the Grid Code and included in the DSU's Op cert" and discussed in detail what would occur if a unit chose to implement SDC1.4.4.4 (f) due to real-time issue and discussed with SO if the unit was still available to be dispatched and it was economically justifiable for the Control Centre to do so the DSU would be issued a new DI in line with their updated in day technical capability and they would not be excluded from dispatch considerations

2. *That we have highlighted that the mod would not achieve its main goal as a 1kW demand reduction would be sufficient to circumvent.*

As TSO, we do not believe that the vast majority of DSU Operators would take such an unethical action to circumvent any Grid Code requirement, but particularly a requirement which is intended for the purpose

system security and are very concerned that such an action would be suggested by an Industry representative body.

We also note that over 82% of existing DSUs are in compliance with their TOD sets and Operational Certs and would not need to take such action to intently falsifying their compliance with this proposed modification.

This was discussed in the joint meeting with the DSU representatives and it was noted that this would not be compliant with the existing Grid Code requirements.

- 3. We plan on submitting an alternative modification which would better meet Eirgrid requirements later today."*

Following further correspondence between Partrick Liddy and EirGrid, it was decided this was a separate proposal to MPID327 – DSU Notice to React and will be presented at the March JGCRP meeting as MPID328 – Notice to Respond. EirGrid provided standard review process on the modification submission to support the proposer to bring forward a robust proposal.

Red-line Version of Impacted Grid Code Section(s) - show recommended changes to text:

Deleted text in ~~strike-through red font~~ and new text highlighted in blue font

SDC2 Scheduling and Dispatch Code

<p>SDC2.4.2.11 Action Required from Users</p>	<p>(e) Where the TSO issues a Notice to React Instruction via a Dispatch Instruction to a Demand Side Unit Operator and the Demand Side Unit Operator identifies that such Demand Side Unit will not be providing Demand Side Unit MW Response within -15/+15 minutes of its effective time, the Demand Side Unit Operator must immediately (at the time the discrepancy is identified) inform the TSO of the situation and estimate the new Notice to React time.</p> <p>(f) If the Demand Side Unit has not reacted by reducing Demand within 15 minutes of the Notice to React Instruction, the TSO will issue a Failure to Follow Notice to React Instruction and the Demand Side Unit Operator shall re-declare, by Electronic Interface or by other form as the TSO may reasonably notify to Demand Side Unit Operator from time to time, its Availability to zero MW for the effective time of the original Notice to React.</p>
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Definitions

<p>Notice to React</p>	<p>A Dispatch Instruction issued by the TSO to a Demand Side Unit Operator to initiate Demand Side Unit MW Response from a zero MW value at the stated effective time.</p>
<p>Failure to Follow Notice to React Instruction</p>	<p>A Dispatch Instruction issued by the TSO to a Demand Side Unit Operator in respect of its Demand Side Unit confirming that it has failed to provide a Demand Side Unit MW Response within 15 minutes after the Notice to React instruction, subject to Demand Side Unit Notice Time.</p>

Green-line Version of Impacted Grid Code Sections – show recommended final text:

SDC2 Scheduling and Dispatch Code

<p>SDC2.4.2.11 Action Required from Users</p>	<p>(e) Where the TSO issues a Notice to React Instruction via a Dispatch Instruction to a Demand Side Unit Operator and the Demand Side Unit Operator identifies that such Demand Side Unit will not be providing Demand Side Unit MW Response within -15/+15 minutes of its effective time, the Demand Side Unit Operator must immediately (at the time the discrepancy is identified) inform the TSO of the situation and estimate the new Notice to React time.</p> <p>(f) If the Demand Side Unit has not reacted by reducing Demand within 15 minutes of the Notice to React Instruction, the TSO will issue a Failure to Follow Notice to React Instruction and the Demand Side Unit Operator shall re-declare, by Electronic Interface or by other form as the TSO may reasonably notify to Demand Side Unit Operator from time to time, its Availability to zero MW for the effective time of the original Notice to React.</p>
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