



An Coimisiún
um Rialáil Fóntas
**Commission for
Regulation of Utilities**

An Coimisiún um Rialáil Fóntas
Commission for Regulation of Utilities

Grid Code Modification MPID 345 and Compliance and Derogation Framework

Decision Paper

Reference: CRU2026145

Date Published: 22/09/2026

Queries to: UtilityPerformance@cru.ie

CRU Strategic Plan 2025-2027

Vision, Purpose, and Values



OUR VISION:

Resilient, efficient, sustainable, and safe energy and water services for Ireland.



OUR PURPOSE:

We actively serve the public interest by regulating the provision of energy and water to Irish homes and businesses, while supporting the transformation to net zero.



OUR VALUES:

• Integrity • Professionalism • Openness • Accountability

Executive Summary

This decision paper sets out the CRU's decision to approve Grid Code Modification MPID 345: Fault Ride Through, Rate of Change of Frequency and Post Fault Active Power Recovery for Demand Facilities ("MPID 345").

MPID 345 introduces new technical requirements into the Grid Code for all current and future transmission-connected Demand Facilities. The new technical requirements require Demand Facilities to remain connected to the power system during short-term disturbances. The full technical specifications of each of these requirements are set out in EirGrid's published Recommendation Paper¹. The Grid Code already requires generators to 'ride through' faults, which mitigates the risk of widespread simultaneous disconnection of generation following a fault on the network. MPID 345 extends this requirement to large Demand Facilities.

The CRU recognises the feedback provided by consultation responses that many existing transmission-connected Demand Facilities will not initially be in a position to comply with the technical requirements of MPID 345. EirGrid has developed a Compliance and Derogation Framework in response to the challenge of implementation that enables a route towards compliance over time. This decision paper also sets out the CRU's decision to endorse EirGrid's proposed Compliance and Derogation Framework, subject to some changes.

EirGrid informed the CRU that the proposed technical requirements and compliance framework are required to address a high risk currently posed to grid stability and consequently to security of supply and requested that the CRU prioritise the assessment of its proposals. Over the past number of months, EirGrid has recorded increasingly high levels of data centre demand on the system which at times has reached the 900 MW Load Rejection Limit. The Load Rejection Limit is the maximum demand loss that can be securely accommodated on the all-island power system; 1,000 MW of data centre demand equates to a potential 900 MW of Load Rejection and is the maximum amount of data centre load at which EirGrid can safely operate the system. The increasing levels of data centre demand have necessitated the deployment of significant operational measures to maintain system security limits. These measures are finite and a long-term technical solution to address the risk posed by the non-FRT capability of Demand Facilities and EirGrid's ongoing challenge in operating the system securely is urgently required. EirGrid advised the CRU in July that as demand has increased closer to the demand rejection limit, the importance of approval of this modification has become more acute.

The operational measures currently being employed by EirGrid are wide ranging and include significant measures such as limiting exports on HVDC interconnectors through counter trading arrangements; increasing reserve and inertia on the system, additionally EirGrid is pausing elements of the work required to change operational policy which is necessary to integrate more renewables on the electricity system. The CRU has strong concerns about the ongoing impact of these measures, which have direct negative impacts on costs to

¹ [MPID 345 Fault Ride Through, Rate of Change of Frequency and Post Fault Active Power Recovery for Demand Facilities](#) | EirGrid

consumers and in relation to Ireland's renewable targets. The approval of MPID 345 will allow for the removal of these operational measures over time.

EirGrid submitted the proposal to the CRU on 1 April 2026. The CRU published an information note on 20 April 2026 noting that it would accept representations on the MPID 345 proposals until 29 April 2026. On 8 July 2026 the CRU published additional material relating to MPID 345, including EirGrid's assessment of alternative options, and requested further representations on a number of specific topics.

The CRU received a high volume of representations from users and other interested parties in relation to the modification and the compliance framework in response to both the April and July call for representations. The CRU has considered all representations and has published the non-confidential submissions to the July call for representations on the CRU website. TNEI Ireland ("TNEI"), an energy consultancy, has carried out an independent technical review of the modification and framework proposals on behalf of the CRU. TNEI's reports were published by the CRU in July. TNEI also reviewed the representations submitted to the CRU. TNEI's review of the representations is published on the CRU website alongside this paper.

In reaching its decision to approve MPID 345, the CRU requested details of the impact the proposals would have on Demand Facilities and has considered the responses to that request. The CRU recognises that the impact of this decision will vary significantly across different Demand Facilities, and for some it may have a very material impact on commercial operations. The CRU has reached its decision to approve MPID 345 recognising these impacts and balancing them against the current risk posed to security of supply on the Island of Ireland. If the CRU were not to approve this modification, the CRU may be failing in its duties to protect the interests of consumers, recognising that security of supply is imperative to the continuity of essential public services. EirGrid, as the licensed Transmission System Operator for Ireland, has duties to operate and maintain a safe, secure and reliable electricity transmission system that contributes to the security of supply. It is imperative that EirGrid has all the necessary tools required to do this, to avoid and mitigate serious system risks, including potential power outages. The CRU has decided that MPID 345 is required to maintain EirGrid's ability to deliver these functions and that, acknowledging the potential costs to Demand Facilities, there is no feasible, practical or deliverable technical alternative to the implementation of FRT requirements on Demand Facilities. The CRU's approval of MPID 345 recognises its overriding obligation to protect consumers' interests by addressing an immediate and significant risk to grid stability and security of supply.

Ireland is not unique in facing this issue. There have been recorded examples of significant loss of data centre demand load globally, including North America. Jurisdictions such as Australia and Texas have either already introduced or are in the process of introducing similar technical standards to ensure that large demand customers ride through faults.

The Compliance and Derogation Framework developed by EirGrid provides a pathway to compliance for all currently connected Demand Facilities while implementation solutions are being developed. The CRU recognises that the Demand Utilisation Threshold (DUT) which may form part of the derogation process will have varying impacts on the existing and future commercial operations of transmission-connected data centres. The CRU has concluded,

however, that those impacts must be balanced against the urgent and serious risk posed to system security by data centres that are unable to remain connected to the Transmission System during short-term disturbances in the way that MPID 345 will require. The CRU has decided that the Compliance and Derogation Framework is appropriate because it provides time for existing transmission-connected data centre facilities to comply with the new technical requirements, whilst mitigating the risks to system security by reducing the degree to which the system is exposed to risk through the DUT.

The modification will come into effect five weeks from the date of this Decision. The CRU is aware that the majority of Demand Facilities will be unable to comply with the MPID 345 modification immediately. It is expected that these Demand Facilities will report their non-compliance and submit a request for a derogation to EirGrid before the effective date of the modification and in line with the process set out in the Compliance and Derogation Framework. Additionally, the CRU will require quarterly reporting from EirGrid on matters relating to this Decision, including updates to EirGrid's modelling. The CRU will continue to engage with EirGrid to monitor the effectiveness of MPID 345 in addressing the FRT issue.

Public/Customer Impact Statement

EirGrid must balance electricity supply and demand at all times to keep Ireland's power system stable and secure. As the licensed transmission system operator (TSO) in Ireland, it manages system operational security limits, including frequency and voltage limits. Faults on the transmission system that can be caused by, for example, adverse weather conditions or faulty equipment, can result in severe voltage dips that propagate across wide areas of the power system. These faults are normally isolated extremely quickly due to the response of high-speed transmission protection equipment, allowing the voltage to recover to normal operating range within 100 milli-seconds (ms).

These fault events are common in all power systems, and most users of the power system have the capability to 'ride-through', i.e. not trip-off, during these transient events with normal generation and consumption levels restored once the fault is cleared.

EirGrid has identified a risk to grid stability arising from the collective response of most data centres to fault events occurring on the transmission system. When a fault occurs, most data centres, even those remote from the fault, automatically and near instantaneously significantly reduce consumption from the grid and switch to their own, temporary, back-up sources of supply to ensure continuity of service and do not return to their pre-fault level of demand for an extended period. The simultaneous disconnection of a large volume of demand from the power system can create sudden imbalances between supply and demand, and deviations to frequency levels, which EirGrid is managing in real time, and therefore represents both a significant risk to the security of the system and operational challenges for EirGrid. In certain scenarios, fault ride-through behaviour could result in widespread cascading trips of demand and generation, leading to network outages, and exposing all consumers in Ireland and Northern Ireland to the risk of a significant incident.

This risk to the system is currently being managed through a range of mitigation actions. However, based on recent actual demand utilisation increases, the system has moved closer to the point at which these mitigation actions will be exhausted due to the continued growth of demand that does not have FRT capabilities. This is increasing the material risk to system security and urgent action is required to address the FRT challenge. In the event of a significant fault,² the risk to the security of the system may be to the degree that power outages may occur throughout the system in a way that cannot be managed or controlled by the TSO. This would risk impacting all customers, domestic and non-domestic and essential services. EirGrid and SONI note in their Joint Information Paper that, based on their analysis of increased data centre demand scenarios, if not mitigated, these scenarios would expose all consumers in Ireland and Northern Ireland to the risk of a significant system incident.

The ongoing mitigation actions which have been put in place by EirGrid to manage the risk posed by the FRT issue require interventions in normal market conditions including but not limited to HVDC interconnector export restrictions, BESS charge management, limiting

² Recent system events referenced by EirGrid were single-phase faults. However, EirGrid and SONI studies indicate that three-phase faults could trigger much greater levels of demand reduction at data centres which would present much greater challenges to the security of the power system.

Ireland's SNSP levels and the application of stringent frequency control requirements on wind and solar units. These restrictions are impacting imperfections, dispatch down and system services costs, as well as other non-demand grid code users' operations and Ireland's renewable energy targets. Costs are also borne by electricity consumers through applicable cost recovery mechanisms.

EirGrid has proposed a modification (MPID 345) to the Grid Code which would introduce new requirements for transmission-connected Demand Facilities aimed at resolving the FRT issue. The CRU invited representations on EirGrid's proposals in April 2026 and invited further representations on a number of topics relating to the proposals in July 2026. Having considered EirGrid's submission, representations from interested parties, and advice from technical advisors, the CRU has now decided to approve MPID 345. The approval of MPID 345 will ensure that existing and new large demand customers develop the capability to 'ride through' certain faults on the system, and in turn alleviate the current risk to the system. Introducing the appropriate technical standards to address demand FRT risk will assist EirGrid in ensuring it can operate and develop a secure power system that can facilitate additional growth. The implementation of MPID 345 by existing customers will also mean that EirGrid can decrease its reliance on the material operational measures which it currently uses to manage this risk. The decreased use of these measures will benefit consumers by ensuring that costs which are currently driven by these measures, and largely borne by consumers, are reduced. It will also mean that planned operational changes to increase renewables on the system can commence again.

Table of Contents

Executive Summary	iii
Public/Customer Impact Statement.....	vi
Glossary of Abbreviations and Terms	x
1 Background and purpose of this paper	1
1.1 Commission for the Regulation of Utilities	1
1.2 The Grid Code and the CRU's role	1
1.3 Background Information	1
1.4 System Risk and Urgency.....	3
1.5 Purpose of this Paper	5
1.6 Related Documents	5
2 MPID 345 Modification Proposal	7
2.1 Technical assessment: MPID 345	7
2.2 Stakeholder Representations	8
2.2.1 Summary of responses	8
2.2.2 MPID 345 Technical Requirements	9
2.2.3 EirGrid's Technical Analysis: Electromagnetic Transient (EMT) analysis.....	10
2.2.4 CRU and TNEI Technical Analysis.....	11
2.2.5 Alternative solutions to MPID 345	13
2.2.6 Proportionality of the application of the modification to currently connected Demand Facilities	15
2.2.7 Operational measures	17
2.2.8 Consultation Process	18
2.2.9 Application of the MPID 345 modification to currently connected Demand Facilities...	18
2.2.10 Cost Benefit Analysis	19
2.2.11 Barriers to compliance	19
2.2.12 European and International Developments	20
2.2.13 Application of modification to non-Data Centre Demand Facilities	21
2.2.14 Support for MPID 345.....	21
2.3 Decision	21
3 Compliance and Derogation Framework	23
3.1 Technical assessment: Compliance and Derogation Framework.....	23
3.2 Technical assessment: EirGrid Study Guides.....	25
3.3 Stakeholder Representations	25
3.3.1 Distinction between demand user types	26
3.3.2 Distinction between group and non-group derogations.....	27
3.3.3 Portfolio approach.....	27

3.3.4	Demand Utilisation Threshold (DUT)	28
3.3.5	Compliance monitoring	29
3.4	CRU Decision	30
4	Future Considerations	31
4.1	Market and System Impacts	31
4.2	Future demand growth and system readiness	33
4.3	All-Island and distribution connection considerations	34
4.4	FRT Implementation Working Group	34
4.5	Treatment of freed capacity	35
5	Next Steps	36

Glossary of Abbreviations and Terms

Abbreviation or Term	Definition or Meaning
APR	Active Power Recovery
BESS	Battery Energy Storage System
CBA	Cost Benefit Analysis
DSO	Distribution System Operator
DUT	Demand Utilisation Threshold
EMT	Electromagnetic Transient (analysis)
FRT	Fault Ride Through
GCRP	Grid Code Review Panel
HVDC	High-Voltage Direct Current
JGCRP	Joint Grid Code Review Panel
LEU	Large Energy User
LSAT	Look-Ahead Security Assessment Tool
MIC	Maximum Import Capacity
OEM	Original Equipment Manufacturer
OSS	Operating Security Standards
RoCoF	Rate of Change of Frequency
RMS	Root Mean Square (analysis)
SNSP	System Non-Synchronous Penetration
TSO	Transmission System Operator
UPS	Uninterruptible Power Supply

1 Background and purpose of this paper

1.1 Commission for the Regulation of Utilities

The CRU is Ireland's independent energy and water regulator. The CRU was established in 1999. The CRU's purpose is to actively serve the public interest by regulating the provision of energy and water to Irish homes and businesses, while supporting the transformation to net zero. The work of the CRU impacts every Irish home and business as well as broader society. The sectors the CRU regulates underpin Irish economic competitiveness, investment and growth, while also contributing to international obligations to address climate change. The CRU is committed to playing its role to help deliver a secure, low carbon future at the least possible cost, while ensuring energy is supplied safely, with empowered and protected customers paying reasonable prices and the delivery of a sustainable, reliable and efficient future for energy and water. Further information on the CRU's role and relevant legislation can be found on the CRU's website at www.cru.ie.

1.2 The Grid Code and the CRU's role

The Grid Code is a technical document that forms the rules around operating, maintaining and developing the transmission system. It also sets out the procedures for overseeing the actions of all transmission system users. A user is defined as any party using the transmission system.

The Grid Code was approved by the CRU in accordance with The Electricity Regulation Act 1999 as amended ("the Act"). The Act gives the CRU the necessary powers to direct the TSO in respect of the matters to be specified in the Grid Code, and the review and revision of the Grid Code.

The Grid Code sets out the detailed steps to be taken for revisions or modifications to the Grid Code, including the procedures in place for the assessment of a proposed revision to the Grid Code, and the role of the CRU in assessing a proposal.

All modifications to the Grid Code must be approved by the CRU. Approval of modifications to the Grid Code are made in accordance with Section 33 of the Act, as amended. All proposed modifications to the Grid Code must be reviewed by the Grid Code Review Panel (GCRP) or the Joint Grid Code Review Panel (JGCRP) (where relevant) prior to application to the CRU by the TSO.

1.3 Background Information

MPID 345 proposes to introduce new Grid Code requirements for all transmission-connected Demand Facilities. EirGrid developed this proposal to address material challenges in operating the power system in a secure and stable manner, as a result of the FRT capability of Demand Facilities.

FRT refers to the capability of a grid user to remain connected to the grid during and immediately after a network fault. FRT requirements already exist in the Grid Code for generators (synchronous and non-synchronous) to ensure they behave in a certain way during and after a fault on the grid. This in turn mitigates the risk of widespread simultaneous disconnection of generation following a fault on the network. EirGrid proposes that FRT requirements should apply to large Demand Facilities in addition to generators. The proposal is intended to address a material risk to the stability of the grid, which is explained further in Section 1.4 below. It is noted that FRT is a global issue and there is a growing level of focus on System Operators worldwide in addressing the challenges it poses.

On 1 April 2026 EirGrid submitted a proposal to amend the Grid Code to introduce new FRT requirements for transmission-connected Demand Facilities (MPID 345). This followed a period of engagement between EirGrid and industry via the Grid Code Review Panel and a series of webinars and bi-lateral meetings. Engagement on the proposed technical requirements commenced in 2024 and ran to the end of 2025, concluding with the development of MPID 345. Engagements between EirGrid and industry from January to April 2026 focused on the accompanying Compliance and Derogation Framework. A more detailed timeline of EirGrid's engagements is set out in the MPID 345 Recommendation Paper.³

Under sections 7.2 and 7.3 of the Grid Code, users may also make direct representations on modification proposals to the CRU. The CRU published an Information Note⁴ on 20 April 2026 inviting and setting out a timeframe for the submission of representations. All transmission-connected demand users and all members of the Grid Code Review Panel were notified of the CRU's Information Note.

In June 2026, in response to a request from the CRU, EirGrid submitted an Information Paper summarising EirGrid's assessment of system service/grid solution alternatives to MPID 345. In addition, EirGrid submitted a proposed change to the proposed Compliance and Derogation Framework, following assessment of feedback from demand customers. The CRU's technical advisors, TNEI, also completed reports setting out their recommendations in relation to MPID 345 and the proposed framework. In July 2026, the CRU published a request for further representations⁵ on several topics relating to MPID 345, including TNEI's reports and:

- The Alternative Solutions to MPID 345, including the assessment of those alternatives in EirGrid's Information Paper and proposed change to the proposed framework; and
- The impact on businesses.

The CRU received a substantial number of representations from users and other interested parties in relation to the modification and the Compliance Framework in response to both the April and July call for representations.

³ [EirGrid MPID 345 Recommendation Paper](#) | EirGrid

⁴ [CRU Information Note on MPID 345](#) | CRU

⁵ [Grid Code Modification MPID 345 and Compliance and Derogation Framework: Request for further representations](#) | CRU

1.4 System Risk and Urgency

EirGrid and SONI (the TSOs) published an Information Paper titled “Large Demand Facility Fault Ride-Through Issue and Proposed Solutions” in November 2025⁶. In this paper the TSOs detail that during transient faults on the transmission system, most data centres (a type of large Demand Facility) may automatically and near instantaneously reduce their consumption from the grid and switch to their own, temporary, back-up sources of supply and do not return to their pre-fault level of demand for an extended period. Data centres respond in this way to protect their IT systems and processes, ensuring that the key services they provide to their customers are maintained.

The TSOs identify that the collective performance by large energy users in not ‘riding through’ fault events impacts grid stability. The paper sets out analysis based on four recorded faults on the transmission network from 2022 to 2025. In each of these events there was a significant and material reduction in demand levels in response to a fault on the transmission network. These unplanned and unexpected imbalances had to be managed in real time by EirGrid to prevent widespread grid stability issues.

Since the publication of the TSOs’ Information Paper, another significant incident occurred on the 6th of June 2026. During this incident approximately 480 MW of data centre demand dropped off the grid in response to a single-phase fault event at a 220 kV station in Dublin. EirGrid note that all of the events to date relate to a single-phase fault. EirGrid consider that in the event of a three-phase fault, significantly higher demand reductions would be observed⁷. An updated summary of the events from 2022 to 2026 is shown below.

Date	Transmission System Contingency	Data Centre Demand Reduction	Percentage of Total Data Centre Demand
7 Jan 2022	Limerick: Kiltonan-Kilpaddock 220 kV Fault	74 MW	16 %
13 Dec 2022	Dublin: Kellystown-Woodland 220 kV Fault	204 MW	34 %
26 Jan 2025	Dublin: Poolbeg 220 kV Reactor Fault	321 MW	44 %
8 May 2025	Dublin: North Wall – Poolbeg 220 kV Fault	387 MW	52 %
6 June 2026	Dublin: Poolbeg 220 kV Reactor Fault	480 MW	52 %

The TSOs explain that the impact of this collective demand reduction causes a significant imbalance on the power system leading to an increase in system frequency that is experienced by the whole power system of Ireland and Northern Ireland. The TSOs note that based on detailed power system analysis of credible fault scenarios under current data centre demand levels, such imbalances could be over 1300 MW (a combination of data centre demand reduction and loss of HVDC interconnector export) if no mitigating actions are taken.

The TSOs have determined that the loss of 900 MW of demand is the maximum upper bound (load rejection limit) which would be manageable using existing and available operational mitigations, including system defence measures, and have identified a high risk of a significant system incident if demand loss is greater than this limit. This could include critical

⁶ [Large Demand Facility Fault Ride Through Issue and Proposed Solutions](#) | EirGrid and SONI

⁷ EirGrid’s analysis indicates that 90% of data centre demand could reduce for certain credible faults on the transmission network.

violations of the TSO's Operating Security Standards, including significant frequency and Rate of Change of Frequency (RoCoF) deviations, which may lead to more widespread cascade trips of demand and generation on the system. A range of significant operational mitigation measures are being implemented now to ensure the system does not breach this limit. The risk to the power system associated with demand FRT is reflected in Ireland's Electricity Sector Risk Preparedness Plan under the national electricity crisis scenario "Grid instability caused by unanticipated interaction with new technology".⁸ This risk has been classified as 'high' following assessment by CRU and EirGrid under the appropriate criteria.⁹

The CRU's technical advisors, TNEI, have considered the analysis carried out by EirGrid in relation to the upper bound limit and agree with the approach taken by EirGrid to determine this figure. They also agree that the simultaneous disconnection of large-scale demand connections represents a credible and material threat to system security.

Over the summer months, EirGrid has recorded increasingly high levels of data centre demand on the system. In early June 2026, EirGrid notified the CRU that aggregate data centre demand peaked at 952 MVA on 25 May 2026, an increase of 23 MVA from the April 2026 peak of 929 MVA.

EirGrid further recorded aggregate data centre demand peaks up to 1000 MW at times in June and August and as a result, the 900 MW load rejection limit was reached and EirGrid had to deploy additional operational measures to maintain operational security limits. This included the dispatch of Demand Side Units associated with data centres to reduce overall data centre load on the system. The CRU notes that the data centre demand peaks were associated with periods of warm weather; however, these incidents clearly indicate the significant challenges in operating the system whilst maintaining operational security limits.

This illustrates very clearly that data centre demand levels have now reached a point where EirGrid has very limited operational tools remaining to maintain operational security limits except to actively curtail data centre demand levels at times. Over the summer months EirGrid has engaged directly with data centre customers to notify them that it is implementing an FRT Demand Curtailment procedure to manage the risk to operational security limits. The FRT Demand Curtailment Procedure will be used by EirGrid if required to maintain levels of data centre demand that cannot demonstrate fault ride through capabilities below the load rejection limit. EirGrid's FRT Demand Curtailment Procedure is an operational measure which may be activated by EirGrid if required to safeguard the system, and it is not contingent on the CRU's approval of MPID 345. The CRU understands that the FRT Demand Curtailment Procedure will be reviewed shortly following the MPID 345 implementation to reflect the application of the Compliance and Derogation Framework including the DUTs. Alongside the CRU's request for further representations published in July, the CRU published a document prepared by EirGrid which discusses the urgency of approving MPID 345 and the associated framework ([CRU202706](#)). In EirGrid's response to the CRU's request for further representations, EirGrid referred to that document and stated that "This situation has not ameliorated, rather, as demand has increased closer to the demand rejection limit, the importance of approval has become more acute."

⁸ [Ireland's Electricity Sector Risk Preparedness Plan \(2026-2029\)](#), published January 2026.

⁹ Article 7 of [Regulation \(EU\) 2019/941](#) on risk preparedness in the electricity sector.

1.5 Purpose of this Paper

This paper sets out the CRU's decision to approve MPID 345, and its decision in relation to the proposed Compliance and Derogation Framework. Noting that the proposed modification and framework may result in significant impacts on large demand customers, the CRU provided two opportunities for stakeholders to submit representations on the proposals to ensure that all views could be taken into consideration prior to making a decision. The paper includes the CRU's response to key themes that emerged from the representations submitted by stakeholders. Alongside this paper, the CRU is publishing TNEI's review of representations to the CRU and the CRU's direction to EirGrid to implement MPID 345.

1.6 Related Documents

1. [Large Demand Facility Fault Ride Through Issue and Proposed Solutions: Information Paper](#) (prepared by EirGrid and SONI)
2. [MPID 345 Fault Ride Through, Rate of Change of Frequency and Post Fault Active Power Recovery for Demand Facilities Recommendation Form](#) (prepared by EirGrid)
3. [Fault Ride Through / Active Power Recovery / Rate of Change of Frequency Grid Code Modification \(MPID345\): Compliance and Derogation Framework Proposal](#) (prepared by EirGrid)
4. [CRU202704](#) Grid Code Modification MPID 345 and Compliance and Derogation Framework Request for Further Representations
5. [CRU202705](#) Fault Ride Through / Active Power Recovery / Rate of Change of Frequency: EirGrid Update including Assessment of System Service / Grid Solution Alternatives (prepared by EirGrid)
6. [CRU202706](#) Urgency of CRU Approval of Grid Code Modification Proposal MPID345 (FRT/APR/RoCoF) and Associated Compliance and Derogation Framework / Commentary on Use of FRT Demand Curtailment Procedure: Information Note (prepared by EirGrid)
7. [CRU202707](#) Fault Ride Through, RoCoF and Post Fault Active Power Recovery for Demand Facilities Modification Review (prepared by TNEI)
8. [CRU202708](#) Fault Ride Through Compliance and Derogation Framework Review (prepared by TNEI)
9. CRU2026145a Fault Ride Through RoCoF and Post Fault Active Power Recovery for Demand Facilities Further Representations Review (prepared by TNEI and published alongside this paper)
10. CRU2026145b Fault Ride Through/ Active Power/ Rate of Change of Frequency Grid Code Modification (MPID 345) Compliance and Derogation Framework (updated by EirGrid and published alongside this paper)

11. CRU2026145c MPID 345 CRU Letter of Direction to GCRP chair (published alongside this paper)

2 MPID 345 Modification Proposal

MPID 345 proposes to introduce new technical requirements for Demand Facilities, which aim to ensure large Demand Facilities remain connected during short-term disturbances:

1. Fault Ride Through (FRT) Requirements: The TSO requires that Demand Facilities must remain connected and operate stably during and after any fault disturbance, provided the voltage deviation stays within the specified voltage-against-time profile at the connection point.
2. Rate of Change of Frequency (RoCoF) Robustness: The TSO proposes extending the RoCoF standards of +/- 1 Hz/s to include Demand Facilities, ensuring uniformity across all system users.
3. Active Power Recovery (APR): The TSO proposes that Demand Facilities must recover their active power to 90% of the pre-fault value within 500 milliseconds after fault clearance and voltage recovery to 0.9 per unit.

The full technical specifications of each of these requirements are set out in EirGrid's published Recommendation Paper.¹⁰ The proposed standards would apply to all transmission-connected Demand Facilities; both currently connected and future connections.

EirGrid has identified the technical standards as a required and necessary solution to address the demand FRT risk. While other solutions have been considered by EirGrid and some grid scale solutions will continue to be progressed, EirGrid does not consider that they are sufficient to address the FRT issue alone. EirGrid set out its assessment of alternative solutions in an information note published in July 2026 ([CRU202705](#)). EirGrid concluded that:

“System Service or Grid solutions alone do not offer credible alternatives to the implementation of FRT/APR/RoCoF capability at Demand Facilities. Attempting to secure for instantaneous demand reductions of the magnitude modelled would introduce an unacceptable level of complexity and risk to the security of the All-Island power system and threaten security of supply for all electricity consumers. This approach would also tie-up grid capacity and connections that would significantly inhibit the ability of the grid to accommodate demand growth and new demand connections”.

2.1 Technical assessment: MPID 345

TNEI Ireland (“TNEI”) undertook a technical review of the proposed modification on behalf of the CRU. TNEI's report and overall recommendation was published in July ([CRU202707](#)).

In reaching a position, TNEI has considered EirGrid's Information Paper on the topic titled “Large Demand Facility Fault Ride Through Issue and Proposed Solutions” and the updated Information Paper including EirGrid's Assessment of System Service / Grid Solution Alternatives. TNEI has reviewed and considered all industry representations submitted to the

¹⁰ [EirGrid MPID 345 Recommendation Paper](#) | EirGrid

CRU and was in attendance at TSO industry webinars relative to both proposals and as an observer at the JGCRP/ GCRP meetings. Additionally, TNEI attended a number of meetings with EirGrid to discuss the proposed requirements and EirGrid's assessment of alternative solutions.

As outlined in its report, TNEI considers that the simultaneous disconnection of large-scale demand connections during typical network disturbances represents a credible and material threat to power system security. TNEI has considered the TSO's assessment of the potential for alternative solutions and agrees with EirGrid's conclusion that there is no feasible, practical or deliverable technical alternative to the implementation of FRT requirements on Demand Facilities.

TNEI conducted a review of all representations to the CRU and considered if the information in the representations impacted the recommendations in its July reports. TNEI's review of the further representations is published alongside this paper (CRU2026145a).

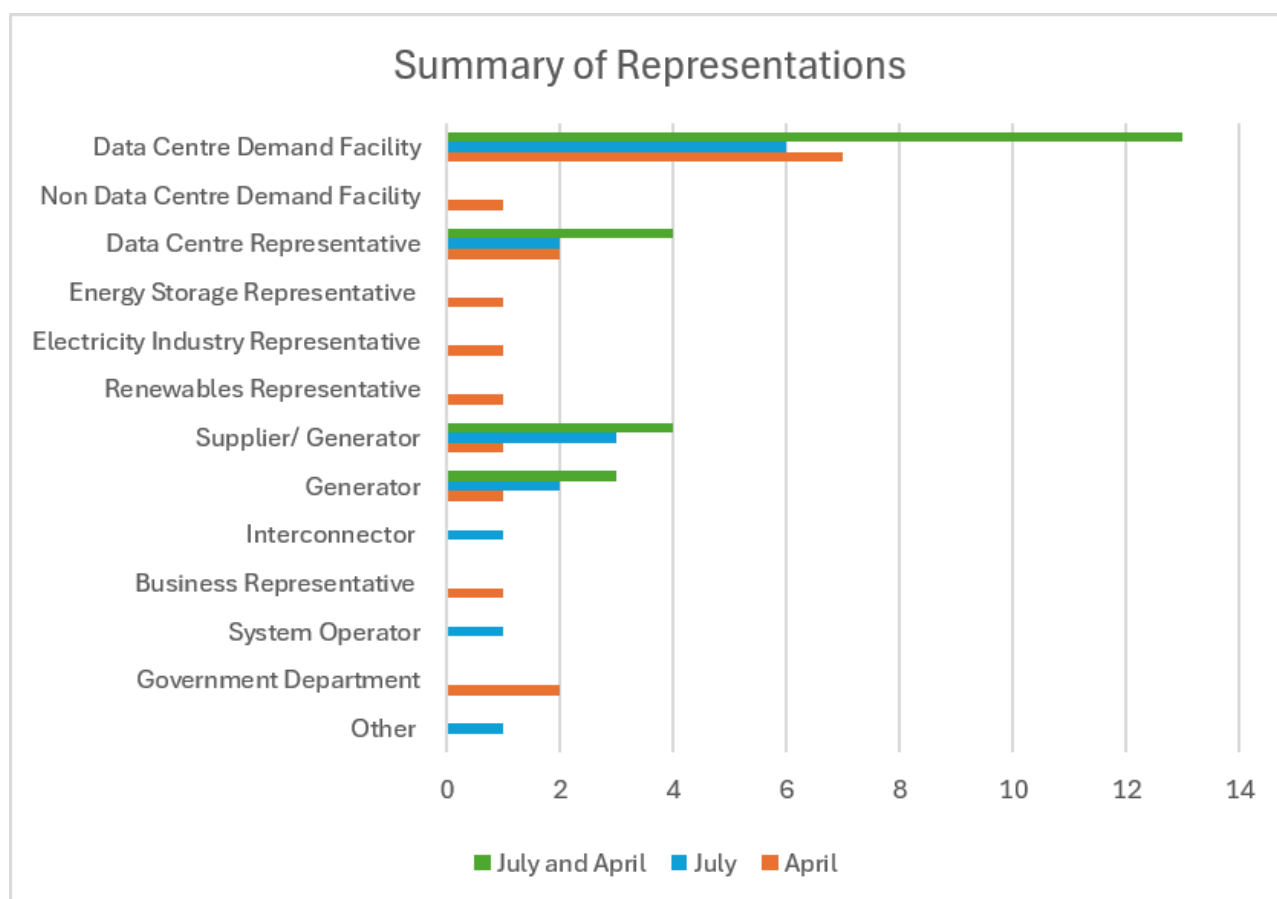
Following its review of the representations, TNEI acknowledges the implementation challenges facing Demand Facilities relative to the MPID 345 modification and recommends that ongoing consideration is given to this as part of the Compliance and Derogation Framework. However, TNEI continues to agree with EirGrid that urgent action is required to address the FRT challenge and given the material risk to system security and the lack of a feasible alternative, TNEI's overarching recommendation continues to be the approval of the MPID 345 modification proposal as a matter of urgency.

2.2 Stakeholder Representations

Following the formal submission of MPID 345 and the proposed Framework, the CRU requested representations from stakeholders in relation to both proposals in April 2026. The CRU requested further representations from stakeholders in relation to a number of specific topics relative to the proposals in July 2026. The CRU has considered each representation received and the issues and views expressed within. The following sections discuss the key themes relating to MPID 345 which have emerged in the direct representations to the CRU. Key themes relating to the proposed Compliance and Derogation Framework are set out in Section 3.

2.2.1 Summary of responses

In April the CRU received eighteen direct representations in response to the MPID 345 proposals and in July sixteen responses were submitted in response to the CRU request for further representations. The CRU held bilateral meetings with stakeholders as requested to discuss their views. The representations were from a wide range of interested parties, as follows:



At a high level, Demand Facilities, and in particular data centre facilities, and representatives of data centres did not support the approval of MPID 345. Some generation representatives were supportive of the approval of MPID 345. All renewable generation and interconnector representations supported approval.

2.2.2 MPID 345 Technical Requirements

Some respondents have expressed views on the proposed MPID 345 technical requirements, specifically, that the proposed 500 millisecond Active Power Recovery (APR) target presents significant difficulties for some installed Uninterruptible Power Supply (UPS) systems to achieve and that consideration should be given to a staged APR requirement, or a longer recovery time for existing facilities under the derogation process. A respondent further requested clarification on whether the pre-fault active power value against which recovery is assessed under the MPID 345 proposal is measured as net active power at the connection point or as the underlying facility load.

The CRU asked EirGrid to clarify the source of the 500-millisecond timeframe and to provide additional information regarding the challenges associated with extending it as requested by some stakeholders.

EirGrid noted that the 500-millisecond timeframe is informed by power system sensitivity studies assessing the impact of different active power recovery times following fault clearance, as set out in Sections 5.4 and 5.5 of the Large Demand Facility Fault Ride-Through

Issue and Proposed Solutions Information Paper¹¹. The results of the studies demonstrated that a 1-second recovery timeframe is insufficient to adequately secure the power system, with the operational RoCoF limit exceeded at data centre demand levels of 1,000 MW and above, and that in comparison, recovery within 500 milliseconds materially improved frequency and RoCoF performance. EirGrid further noted that extending the recovery timeframe would prolong system imbalance, resulting in higher frequency and RoCoF excursions. EirGrid consider that the 500-millisecond timeframe is therefore the appropriate recovery period.

TNEI view the 500-millisecond timeframe as both appropriate and prudent noting that EirGrid's simulations determined this as the necessary timeframe. TNEI further consider that an extension to the timeframe would create an unmanageable system security risk. Maintaining system security is inherent to the MPID 345 proposal. The CRU therefore considers that the proposed Active Power Recovery timeframe is necessary to protect the integrity of the system.

Regarding the measurement basis for Active Power Recovery, EirGrid has clarified that compliance with the applicable FRT and post fault Active Power Recovery requirements is assessed at the Demand Facility point of connection. Compliance is therefore assessed based on the aggregate electrical response of the Demand Facility at the point of connection, rather than the response of the individual loads or equipment comprising the facility. On this basis, alternative technology solutions located behind the Point of Connection, including co-located BESS or other technology, may form part of the overall technical solution employed by a demand user to achieve compliance. However, the integrated response of the Demand Facility would be required to satisfy the applicable requirements at the Point of Connection and any proposed arrangement would require consideration through the applicable compliance assessment process. 2.2.5

2.2.3 EirGrid's Technical Analysis: Electromagnetic Transient (EMT) analysis

A number of respondents expressed views that the analysis and modelling presented in the EirGrid/SONI Joint Information Paper was materially incomplete or flawed. The substantive concerns related to the limitations associated with the lack of EMT analysis for the first 150 milliseconds post-fault. EirGrid has utilised RMS (Root Mean Square) analysis for this timeframe, which is primarily suited to steady state analysis, while EMT analysis is primarily suited to accurately simulating fast, short-term phenomena including oscillations and power-electronic device response, during the sub-transient period immediately following a fault and the subsequent large loss of demand.

Historically, simplified models of Demand Facilities have been utilised in EirGrid's dynamic analysis tool (LSAT), reflecting the historically low level of fault-triggered demand response observed on the power system. EirGrid has advised the CRU that the addition of large quantities of data centre load to the transmission system has necessitated the development of more detailed modelling of these Demand Facilities in LSAT to capture their fault response behaviour. Voltage and frequency settings that trigger demand reduction at data centres has been collected over the past number of years and these settings have been used to develop

¹¹ [MPID345 Large Demand Facility Fault Ride Through Issue and Proposed Solutions](#) | EirGrid and SONI

site specific ‘trip models’ for each data centre that are used in EirGrid’s real-time LSAT security assessment tool and in longer term planning analysis.

All Demand Facilities connected to the power system after 1 June 2016 or Demand Facilities that have undergone significant refurbishment that materially affects the dynamic performance of their facility are required to provide dynamic models to EirGrid under Grid Code requirement PC.A8.

EirGrid is currently engaging with Demand Facilities relative to the provision of accurate dynamic models to ensure the secure, reliable and efficient operation and planning of the power system. EirGrid has developed EMT model specifications for all users of the transmission system and users are required to provide EMT models and documentation in accordance with these specifications. The CRU notes that EirGrid is engaging with stakeholders in relation to this.

TNEI noted in its report¹² that EMT analysis is the most suitable analysis for simulating sub-transient behaviour in power systems. While TNEI remains of the view that EMT modelling should be examined in the future when the necessary data is in place, TNEI is satisfied that RMS modelling is the most effective modelling option practically available to EirGrid at this time given the lack of EMT data available. TNEI recommend continued emphasis on the delivery of EMT models from system users to EirGrid with the intention of running EMT-based analysis related to large levels of demand disconnection at a future date.

The CRU is satisfied that EirGrid has the best available models at present to address a critical system security risk. The CRU acknowledges and endorses the TNEI recommendation that EirGrid continues to develop its modelling and analysis as more EMT data becomes available from Demand Facilities. As detailed in Section 4.2, EirGrid will be required to provide quarterly updates on its modelling to the CRU. The CRU will continue to engage with EirGrid to monitor the impact of implementation of MPID 345 in addressing the FRT issue.

2.2.4 CRU and TNEI Technical Analysis

Some respondents suggested that TNEI’s technical review dated July 2026 was limited, as the report stated “*EirGrid is the appropriate authority on technical analysis related to FRT impacts and our review does not intend to dispute any findings of EirGrid’s analysis*”. Some respondents also noted that there had been limited independent validation of the 900 MW Load-Rejection Limit operational constraint introduced by EirGrid and SONI.

TNEI has reviewed and interrogated the technical analysis conducted by EirGrid. TNEI’s technical review of the further representations is published alongside this decision paper. This paper includes TNEI’s position regarding these points which makes it clear that whilst TNEI did not set out to take issue with EirGrid’s analysis, it did independently interrogate it.

EirGrid, as the licensed TSO, is required to operate and ensure the maintenance of a safe, secure and reliable electricity transmission system. EirGrid must undertake expert modelling in relation to a wide range of topics to carry out this role. EirGrid’s analysis relating to demand

¹² [Grid Code Modification MPID 345 and Compliance and Derogation Framework: Request for further representations | The Commission for Regulation of Utilities \(CRU\)’s Consultation Portal](#)

FRT is documented in the EirGrid/ SONI Joint Information Paper¹³. EirGrid has clearly identified that, based on its modelling and analysis, if the FRT risk is not addressed, operational security limits are at significant risk of being breached in the immediate term. In order to comply with its duties, EirGrid must ensure the system is operated within these clearly defined and well-established operational security limits to prevent potentially serious system incidents. In this case a serious system incident could lead to a cascade of events, whereby a series of generators and demand trip off the system, which cannot be controlled by the TSOs and may result in outages.

Some respondents claimed that the CRU's decision could not rely on EirGrid's assessment of the underlying issues that MPID 345 is intended to address. The CRU disagrees with those respondents which claim that EirGrid's analysis must be replicated by the CRU to ensure that it is correct. It is not proportionate or required for the CRU to replicate EirGrid's modelling and analysis, particularly when MPID 345 is urgently required to address system needs. The CRU's role is instead to make an informed and independent decision based on all of the available information. It is incumbent on the CRU to reach its decision on an impartial, reasonable and objective basis on the evidence that is presented to it. Where the CRU identifies credible gaps, flaws or issues in the approach taken by EirGrid in carrying out its role, it will address those. In this case, the CRU has used an independent technical advisor to aid its consideration of the robustness of EirGrid's analysis and approach. The CRU has accordingly reached its decision by taking into account EirGrid's recommendation and all of the relevant facts and circumstances, including the representations made by respondents and the assistance provided to it by TNEI's reports.

A small number of respondents claimed that EirGrid had not demonstrated that the 900 MW Load Rejection Limit was justified, meaning that there may be scope for a higher Load Rejection Limit. Those respondents offered no alternative assessment of an appropriate Load Rejection Limit. EirGrid and SONI's analysis indicates that the loss of 900 MW of LEU and interconnector demand is the maximum upper bound ("Load Rejection Limit¹⁴") that can be securely accommodated on the all-island power system. In simple terms this means that EirGrid and SONI do not consider that they can securely operate the system in the event of certain faults arising, should the level of interconnection demand and data centre demand exceed 900 MW.

EirGrid states in the MPID 345 Recommendation Paper that if levels of demand that do not have FRT capability exceed the Load Rejection Limit, there is a high risk of a significant widespread system incident if certain faults were to occur on the system. EirGrid provided further information on the scale of the system balancing challenge in the updated information paper published in July¹⁵ noting that the ratio of maximum imbalance to peak demand at the 900 MW Load Rejection Limit is higher than found in other power systems. The 900 MW Load Rejection Limit gives a ratio of max imbalance to peak demand of 12%, which is higher than found in many other systems internationally. EirGrid has indicated that this will be reviewed

¹³ [MPID345 Large Demand Facility Fault Ride Through Issue and Proposed Solutions](#) | EirGrid and SONI

¹⁴ The 900 MW load reject limit equates to 1,000MW of data centre demand.

¹⁵ [CRU202705 Fault Ride Through / Active Power Recovery / Rate of Change of Frequency: EirGrid Update including Assessment of System Service / Grid Solution Alternatives](#) | EirGrid

further and may be revised to reduce reliance on system defence measures. A simplified comparison of the comparative analysis is set out below, which illustrates that the 900 MW load rejection limit is significantly higher compared to other systems.

TSO	Ratio of Max Imbalance to Peak Demand	% Ratio of Max Imbalance to Peak Demand
AEMO (Australia)	0.06	6%
NESO (GB)	0.03	3%
ERCOT (Texas)	0.03	3%
EirGrid/SONI at 900MW	0.12	12%

The Load Rejection Limit was approved by the All-Island Operational Policy Review Committee¹⁶ which oversees the governance of operational policy changes on the all-island power system. The CRU's position is that it is the core responsibility of the licensed system operators to set system operational limits under defined governance processes for the safe and secure operation of the all-island power system which includes an assessment of the Load Rejection Limit for the purposes of MPID 345. As outlined below in Section 2.2.5, as some of the measures which may assist in reducing the FRT issue are deployed, such as increased inertia on the system, EirGrid will continue to update analysis and modelling on this matter.

2.2.5 Alternative solutions to MPID 345

The CRU received a range of mixed views on EirGrid's Assessment of System Service/ Grid Solution Alternatives Information Paper which the CRU published in July.¹⁷ The paper describes the power system analysis that EirGrid has undertaken to consider certain System Service and Grid Solutions as alternatives to the delivery of FRT/APR/RoCoF requirements by Demand Facilities.

Some respondents agreed that EirGrid's Information Paper demonstrated that a range of alternative grid scale solutions had been considered, and while they would offer incremental support, they would not address the underlying issue of large volumes of demand disconnecting in response to a fault on the system. These respondents agreed that as a result MPID345 was required to address system risk. One respondent noted that on-site conventional generation should be allowed as a means for individual Demand Facilities to manage compliance in the immediate term. One respondent noted that EirGrid's alternative solution studies do not fully assess the contribution that existing and emerging battery energy storage facilities could make in providing rapid active power response, reserve and other flexibility services. Some respondents stated that the studies presented the issue as binary and EirGrid should consider if a range of alternative grid side solutions and demand side solutions could instead be considered.

¹⁶ EirGrid and SONI's joint Operational Policy Review Committee (OPRC) governs the process of operational policy changes. The Load Rejection Limit was approved by the OPRC on 8 October 2025.

¹⁷ [CRU202705](#) Fault Ride Through / Active Power Recovery / Rate of Change of Frequency: EirGrid Update including Assessment of System Service / Grid Solution Alternatives

The CRU has considered respondents' views that on-site generation by Demand Facilities may address the system risks identified.

TNEI¹⁸ considered this point and concluded that this option does not represent an adequate mitigation for FRT non-compliance.

“Where onsite conventional generation is connected to the transmission or distribution network, TNEI does not consider this to represent an adequate mitigation for FRT non-compliance. While such a unit would provide some benefit to the system in terms of inertia and frequency response, it would need to be running at all times to do so. In addition, there would be relatively low FFR provision from onsite conventional generation even if it was running at all times as conventional generation cannot deliver substantial MW provision in the FFR timeframe. Where onsite generation is not connected to the network and operates behind the meter other challenges arise. In the event of a fault, the demand facility would either disconnect from the network entirely or transfer to its onsite generation. Either outcome would result in a sudden reduction in demand as seen by the transmission system, which in itself creates a supply and demand imbalance —essentially replicating the same underlying problem that FRT compliance is intended to prevent”.

The CRU has considered this and agrees that on-site generation does not offer a credible alternative technical solution. It is noted that a Demand Facility may use on-site generation to support the management of their demand capacity.

One respondent highlighted that a barrier to the use of on-site generation is the Industrial Emissions Licence runtime limit and that the introduction of MPID 345 would result in generators breaching those run-time limits. The CRU notes that EPA licences are specific to each Demand Facility and the CRU does not have regulatory remit in that area and that MPID 345 does not mandate an increase in on-site generation that might place respondents in breach of those licence requirements.

A number of respondents suggested the utilisation of Battery Energy Storage Systems (BESS) and Synchronous Condensers as an alternative to MPID 345. TNEI acknowledges that these technologies could mitigate the current challenges: *“These technologies could be deployed to mitigate the challenges to a degree and potentially either increase the Load Rejection Limit beyond 900 MW or provide a path to begin relaxing operational mitigations which are in place. However, while these technologies offer a degree of mitigation, this is limited and does not present an alternative to the implementation of MPID 345”.* The deployment of BESS behind the meter as a demand side management tool was raised by a respondent. TNEI recommends that use of BESS behind the meter, while not an alternative to MPID 345, should be monitored in relation to the development of compliance plans, as compliance will be measured at the point of connection.

Regarding the mitigation value of the alternative solutions assessed by EirGrid, the CRU agrees with TNEI's conclusion that while these technologies offer a degree of mitigation, this is limited and does not present a viable alternative to the implementation of MPID 345. TNEI

¹⁸ [CRU202707](#) Fault Ride Through, RoCoF and Post Fault Active Power Recovery for Demand Facilities Modification Review

recommends that the continued roll out of these technologies is monitored and reviewed regularly in the context of the allowable Load Rejection Limit and the operational mitigations in place as well as in the context of derogation requests where these technologies may form part of the solution. The CRU addresses this point in Section 4 of this paper.

The CRU has considered the information provided by respondents. The CRU's assessment of the reasonability and proportionality of the introduction of MPID 345 is informed by the absence of reasonable alternatives that can adequately address the system security risks that MPID 345 addresses.

2.2.6 Proportionality of the application of the modification to currently connected Demand Facilities

Many respondents expressed concerns regarding the proportionality of the introduction of MPID 345 and the Compliance and Derogation Framework, most particularly in respect of the impact on currently connected Demand Facilities. These respondents highlighted the lack of technical solutions available to enable immediate compliance with MPID 345, the potentially high costs of compliance and that there may be varying and, in some cases, significant commercial impacts. A number of representations also noted that a cost benefit analysis has not been conducted by the CRU. Several demand user respondents state that the CRU should not approve the proposal in these circumstances.

In the CRU's request for further representations¹⁹ the CRU sought additional information regarding the impact of MPID 345 on impacted parties. The CRU received a number of submissions from impacted Demand Facilities. The information received indicates that the impact may vary considerably from facility to facility, depending on factors such as facility technology type, age and commercial model used. In some circumstances the commercial impact on existing Demand Facilities of the introduction of MPID 345 or the adherence to the DUT under the Compliance and Derogation framework may jeopardise the ongoing viability of those operations.

The CRU recognises these potential impacts on existing connected Demand Facilities. Respondents informed the CRU of serious impacts including:

- Potentially high costs of compliance with MIPD 345, noting that the technological solutions to enable compliance may be very difficult to source in the market or may need to be developed. Respondents note that the costs of compliance were in some cases impossible to quantify but were likely to be very high;
- There may be significant retrofit costs, operational disruption during implementation and reduced operational efficacy. In some limited cases retrofitting was described as impossible due to, for example, spatial constraints. In other cases, the impact on operational activities would have a seriously detrimental impact on live-work. The

¹⁹ [CRU202704](#) Grid Code Modification MPID 345 and Compliance and Derogation Framework Request for Further Representations

potential costs and impacts differed significantly across Demand Facilities depending on their maturity, physical composition and business model;

- The cost impacts were not limited to the costs of compliance but the depreciation of operational infrastructure currently in use;
- If a derogation is applied for and granted it is likely to be issued on the basis that a DUT is applied which will effectively limit the Maximum Import Capacity (MIC) of existing and future operations until compliance is demonstrated. This may result in future revenue streams being seriously affected that rely on the MIC to satisfy existing or future opportunities. The DUT may limit MIC at different stages of a projects development, with differing cost implications that may result in very serious consequences for those projects.

However, recognising these impacts, the CRU's view is that the introduction of MPID 345 is reasonable and proportionate in the circumstances of this case. The CRU has noted the serious impact respondents have stated the introduction will have on their existing operations but has weighed those impacts against the very serious consequences for consumers by the increased risks to system stability posed by maintaining the status quo. There is a clear need for urgent regulatory intervention to protect system security and the increased frequency of events posing a risk to system security demonstrates the importance of introducing effective measures quickly. EirGrid has assessed the alternatives proposed by industry and respondents and no viable alternatives that address the underlying concerns in a satisfactory or timely way have been identified. Furthermore, no viable alternatives have been identified that would mitigate or equalise the different impacts across different Demand Facilities. There are therefore no appropriate alternatives to MPID 345 that would have a less burdensome impact on Demand Facilities.

The CRU's proportionality assessment is informed by the availability of derogations from MPID 345, either under EirGrid's proposed Compliance and Derogation Framework or individual derogations as per clauses 9.1 to 9.1.4 of the Grid Code. These provisions allow for Demand Facilities to apply for a derogation from the new standards for a period of time to enable the user to remedy the non-compliance "as soon as reasonably practicable", or for an "extended period" to remedy non-compliance. Where a temporary derogation has been granted, a demand user may apply for the derogation to be extended in advance of the expiry date. The availability of a derogation from MPID 345 which considers the circumstances of an individual Demand Facility further mitigates the potential impact.

The CRU notes that if a derogation is applied for in terms of the Compliance and Derogation Framework that a DUT may be a condition of any derogation granted. The DUT is a measure mitigating the impact of a Demand Facility that will not be compliant with MPID 345. The CRU views the DUT as a proportionate measure to address the risk to the system posed by Demand Facilities that are not compliant with MPID 345. A DUT may therefore be appropriate in response to a derogation from MPID 345 sought on an individual basis too.

The CRU therefore does not agree that it would be unreasonable or disproportionate for the CRU to approve the introduction of FRT requirements that could not be complied with immediately given the potential for derogation from the requirements. The CRU's views on

the appropriateness and proportionality of the specific elements of the proposed Compliance and Derogation Framework are discussed in Section 3 of the decision paper.

The CRU notes that it is not required to carry out a formal “cost benefit analysis” and does not agree with respondents that this prevents the CRU from approving MPID 345. Respondents claiming that a cost benefit analysis must be prepared also noted the impossibility of quantifying the costs and risks of complying with MIPD 345 and the counterfactual. It is clear to the CRU that unacceptable costs to customers are arising due to the consequences of not taking action on the FRT issue. EirGrid has set out that in certain scenarios, demand fault ride-through behaviour, if not addressed, could result in widespread cascading trips of demand and generation, leading to network outages, and exposing all consumers in Ireland and Northern Ireland to the risk of a significant incident. The cost associated with an event of this nature, were it to occur, would be significant and would include direct system costs, customer welfare costs and wider societal impacts. Additionally, the ongoing operational measures which have been put into place to manage the FRT issue are intervening in normal market operations, and as such will increase costs for consumers. The CRU has decided to approve MPID 345 notwithstanding that no CBA has been prepared in light of (i) the urgency of the decision that needs to be taken, (ii) the acknowledged limitations in the data available at present, (iii) the uncertainty that the data could in fact be obtained, and (iv) the lack of alternative technical solutions. Notwithstanding this, the difficulties associated with achieving compliance have been clearly articulated by the majority of respondents which have informed the CRU of individual positions, the cost implications involved and the varying impact on demand users’ operations and businesses. The CRU further outlines its consideration of the respondents concerns that a cost benefit analysis has not been conducted in Section 2.2.10 of the decision paper.

2.2.7 Operational measures

A number of respondents have expressed concern relating to the form, scope and governance of the operational measures that would continue to be used to manage system risk in the absence of the approval of MPID 345, including their cumulative impact and expected duration. Some respondents have highlighted that the outcomes of these measures are outside of their control noting that the measures are materially impacting plant performance, increasing revenue uncertainty and undermining investor confidence.

The CRU considers that the operational measures currently used by EirGrid to manage the system risk are material, non-routine risk management measures. They include actions such as limiting Ireland’s System Non-Synchronous Penetration (SNSP) levels to 75%, limiting interconnector exports and introducing restrictions on battery storage. These measures, while necessary in the immediate term to maintain system stability, have a significant cumulative impact on the wider system. This includes but is not limited to increasing renewable dispatch down rates (i.e. limiting output of existing renewables on the system) and limiting future growth of renewables on the system thus impacting climate action targets. Furthermore, the ongoing reliance on operational mitigations imposes tangible costs on electricity consumers. While the CRU acknowledges that these measures are required in the immediate term to manage the risk to system security, the CRU is also very concerned at the current and ongoing impact of these measures. The CRU considers that the scaling back of the operational measures is both prudent and necessary as the current operational situation on

the transmission system, due to the operational measures, is neither sustainable nor appropriate. The CRU's views on this are discussed further in Section 4.1.

An additional operational measure called Fault Ride Through Demand Curtailment Procedure has been implemented by EirGrid. It will be used by EirGrid if required, to address real-time risks to the power system from non-FRT compliant data centre demand, once all other operational measures have been exhausted. A number of respondents raised queries on whether demand curtailment can be used as an alternative to the proposed MPID 345 technical requirements and expressed views on the legal basis for the implementation of the FRT demand curtailment procedure. The CRU notes that the procedure is an independent process developed by EirGrid that is not contingent on or linked to the approval of MPID 345. It is EirGrid's view, as the System Operator, that this procedure is likely to present significant implementation challenges for data centre facilities as well as increasing the operational risk for the whole power system and all its users, as described in EirGrid's Information Note published in July 2026 ([CRU202706](#)). The CRU's position is that it is not appropriate or viable to rely on demand curtailment as an interim or enduring alternative solution to securing the power system.

2.2.8 Consultation Process

Some representations highlighted concerns regarding EirGrid's engagement with demand users on the modification and framework proposals, noting that there was insufficient engagement and/or that engagement timelines were too compressed. Other representations highlighted issues relating to the development and recommendation of the modification under the grid code process. Some representations noted that the period of time given by the CRU to respond to its Call for Representations was insufficient.

The CRU considers that sufficient time and opportunity has been provided to respondents to provide their views on the proposal. Respondents were enabled to provide more than one response to the CRU and took the opportunity to provide detailed responses. The CRU also considers that given the urgency of this issue, the timing provided by the CRU for the submission of responses was appropriate.

2.2.9 Application of the MPID 345 modification to currently connected Demand Facilities

Some respondents did not support the application of the MPID 345 modification to currently connected Demand Facilities and contend that there is no legal basis for this, and that it is not aligned with developments in other jurisdictions. Fault Ride Through developments at EU and international levels are discussed in Section 2.2.12 of this paper.

The CRU notes that by default any modification to the Grid Code is applicable to both existing and new connections, unless otherwise specified. In this instance, EirGrid has demonstrated that the technical requirements are required for both new and existing demand connections in order to address a current material risk to system security and stability. The proposed modification will not address the system security issues identified by EirGrid if the requirements were only to apply to future connections.

The terms and conditions of Transmission Connection Agreements expressly provide that users must comply with the Grid Code. Clause 6.5 of the General Conditions and Connection and Transmission Use of System (incorporated into Transmission Connection Agreements) provide that customers acknowledge and agree that any amendments to the Grid Code are binding on them and that they shall be liable for any costs and expenses arising from such changes. The Grid Code also provides that the specifications or standards that apply to a user's plant or apparatus can be amended and that users are required to comply with those amendments. The contractual and regulatory mechanisms which require both new and existing Demand Facilities to comply with new Grid Code requirements are accordingly in place.

This reflects the fact that the Grid Code is an evolving document and it is normal regulatory practice to apply new grid code requirements to existing users of the transmission system where it is deemed to be appropriate to maintain the Code's operational effectiveness.²⁰

2.2.10 Cost Benefit Analysis

Some respondents highlighted that a Cost Benefit Analysis (CBA) has not been carried out, and that the impact of the proposal on demand users has not been adequately considered. Some respondents noted that there is insufficient data available in the public domain to independently carry out a CBA or to fully assess the costs of the ongoing operational measures. A respondent noted that given the urgency of resolving the issue, the approval of MPID 345 should not wait for cost evidence; however, the framework should be approved on an interim basis and reviewed once a CBA has been completed.

The CRU notes that it was not required to carry out a CBA prior to this decision. Additionally, carrying out a CBA prior to a decision in this instance would cause untenable delays due to the urgency of resolving the FRT issue. As noted in TNEI's report, regardless of cost, there is no feasible, practical or deliverable technical alternative to the implementation of FRT requirements on demand facilities. The CRU considers that the cost to Irish consumers more generally by not immediately resolving the FRT issue and thereby increasing a credible risk of a significant system event, is not readily quantifiable but is demonstrably extremely material. A stable and secure grid and maintaining security of supply is of critical importance to the wider public interest, and in this instance the CRU considers the measures proposed are justified. The costs of a potential major grid event are wide ranging and would include direct electricity system costs, economic costs and wider societal impacts including potential impacts on critical services and public safety. The CRU also considers that the ongoing operational measures are costly to consumers and are creating a barrier to achieving Ireland's electricity decarbonisation objectives. The CRU acknowledges that large demand customers may incur costs in complying with MPID 345 and the framework. As set out in Section 4, the CRU will continue to engage with EirGrid to further develop costs and benefits.

2.2.11 Barriers to compliance

²⁰ Application of new or enhanced grid code requirements on current grid code users have been approved in the past including, for example, voltage requirements for Windfarm Power Stations (WFPS) and frequency/enhanced performance monitoring requirements for Demand Side Units.

Many representations highlighted barriers to compliance including, but not limited to, cost and lack of proven technology. Some representations from impacted parties noted that the cost of compliance, and ability to comply, for existing customers will vary depending on the type and age of equipment. Some representations expressed the view that it was unreasonable or irrational for the CRU to approve a modification which it knew Demand Facilities would find very difficult to comply with immediately on its approval. However, as described above in Section 2.2.6, the introduction of MPID 345 is accompanied by a framework which enables derogations where accompanied by appropriate conditions; this provides for a route towards compliance rather than immediate adherence to the new standard if required. The CRU disagrees that it is unreasonable or irrational to introduce new Grid Code requirements in these circumstances.

The CRU recognises and has taken into consideration the barriers to compliance as highlighted in many of the representations. The Grid Code derogation process provides a mechanism for demand users to apply for a derogation from the proposed requirements which the CRU will assess against defined criteria, including barriers to compliance as evidenced and justified by the applicant.

2.2.12 European and International Developments

Some respondents noted that grid code changes are currently being discussed at a European level and raised concerns that by implementing MPID 345 and the framework, Ireland risks misalignment with developing European law. Some respondents also state that the scope of the modification was deliberately narrowed to avoid triggering requirements for a public consultation and quantitative CBA under Article 4(3) of the EU Demand Connection Code. Other respondents noted that the proposed requirements are more stringent than those being considered, or already implemented, in other jurisdictions.

While changes to grid codes for demand users are being discussed at European and international levels, the CRU notes that urgent resolution is needed in Ireland to prevent potentially significant impacts on system security and stability. As an island, Ireland's electricity system has unique technical characteristics and challenges relative to other larger, more interconnected power systems. The proposed MPID 345 requirements have been informed by system-specific studies which cannot be assumed to be directly transferable to developments in other jurisdictions given the differing technical system characteristics.

The CRU will continue to keep abreast of changes being considered at the EU level; however, the CRU does not consider that MPID 345 and the framework in their current iterations contradict EU law and will continue to monitor their compliance with EU legal obligations.

Additionally, the CRU notes that Ireland is not unique in developing grid code standards to address FRT risk. For example, the Electric Reliability Council of Texas (ERCOT) has recently introduced requirements for large demand customers to ride through grid faults. While they are not identical to those set out in MPID345, the CRU recognises that the Irish system has several distinct technical characteristics which are not present in other systems like ERCOT, such as a smaller synchronous system with low inertia levels. The CRU recognises the importance of the speed of demand restoration on system frequency levels and as such agrees with the introduction of an explicit requirement regarding restoration

timeframes. The CRU also notes that the Australian Energy Market Council (AEMC) recently published proposed technical standards, which are broadly aligned with those being introduced by MPID 345.²¹

2.2.13 Application of modification to non-Data Centre Demand Facilities

Some respondents noted that non-data centre Demand Facilities have not contributed to the FRT issue, therefore it is not reasonable to apply the same requirements to these facilities.

The CRU notes that the technical standards are required for all demand users as demonstrated by the TSO's analysis. However, EirGrid has recognised and acknowledged that there is a much lower risk associated with non-data centre demand users. This lower risk is reflected in the proposed approach to derogations for non-data centre Demand Facilities; under the group derogation process for non-data centres, derogations will not be subject to a DUT, and applicants have 12 months to submit a compliance plan. Additionally, the CRU recommends that the derogation period for existing connected non-data centre Demand Facilities applying for a derogation through the group derogation process is extended from 2 years to 5 years.

2.2.14 Support for MPID 345

The CRU notes that a number of respondents have expressed strong support for the expeditious implementation of the MPID 345 proposal. Those supporting the proposal consider that it is necessary to maintain the secure and resilient operation of the power system as it continues to evolve. The proposal will also support the scaling back of the operational measures which have been taken to mitigate the FRT risk, and which are having an immediate and ongoing impact on market participants. Some respondents have noted in particular that other Grid Code users have previously adapted to enhanced Grid Code requirements and that the introduction of MPID 345 mirrors the introduction of FRT requirements which generators were required to adopt.

2.3 Decision

In reaching a decision to approve the modification proposal, the CRU has considered the MPID 345 recommendation paper, its supporting documentation provided by EirGrid and the views of stakeholders and industry summarised in this Decision document, including representations made directly to the CRU and views expressed to EirGrid through the GCRP process and at wider industry meetings which the CRU also attended. The CRU has also given due consideration to the technical review carried out on its behalf by TNEI.

The CRU recognises that this modification will have a significant impact on some large demand users, particularly those already connected to the transmission system. However, considering the immediate and material risk posed to grid stability and in turn security of supply, and having regard to EirGrid's obligation under licence to operate a secure and reliable system, the CRU considers that the modification is a justified and proportionate

²¹ [AEMC proposes new grid standards for data centre connections | AEMC](#)

response to system risk. The CRU has considered the alternative options and agrees with EirGrid that those do not present viable alternatives that will address the risks effectively or respond with the urgency required.

It has become increasingly apparent over the summer months that the urgency in addressing this risk has increased. As detailed in Section 1.4 of this document, over the summer, peak data centre demand levels at the transmission and distribution level have at times reached the 900 MW Load Rejection Limit and demand continues to grow as facilities ramp up their demand. In order to maintain safe operational limits over the summer months, the TSO has had to utilise a wide range of significant alternative operational measures, which is not sustainable to maintain a secure system. In simple terms, at points over the summer, the TSO has had to resort to taking active measures to reduce data centre demand in order to maintain secure operational limits. In the absence of the implementation of MPID 345, and as data centre demand levels continue to grow in line with contracted MICs and ramp rates, curtailment measures will not solely be used on an ad hoc basis to manage peaks. They will become routine and widespread. This is not a secure, sustainable, nor equitable way to address the issue.

The CRU notes that analogous FRT/APR/ROCOF requirements have been implemented for generators and other non-demand grid users. The proposed modification will align requirements across relevant grid users.

The impact of the modification is mitigated to the extent possible by a framework for derogation and compliance that addresses the implementation issues raised by industry, whilst also balancing the immediate system needs. The CRU addresses this in Section 3 of this decision paper.

The CRU is a relevant body within the meaning of Section 15(1) of the Climate Action and Low Carbon Development Act 2015 (as amended) (the 2015 Act). Accordingly, the CRU has considered whether the outcome of this Decision is consistent with the climate objectives set out in section 15(1) (a) – (e) of the 2015 Act and has concluded that it is, in so far as practicable, consistent with these objectives.²²

Pursuant to Section 33 of the Electricity Regulation Act, 1999, the CRU now directs EirGrid to revise the Grid Code to take account of the approval of the MPID 345 modification. The Grid Code will be deemed to be amended five weeks from the date of this decision paper.

²² [Climate Action and Low Carbon Development Act 2015 | Law Reform](#)

3 Compliance and Derogation Framework

The CRU recognises the feedback provided in the direct representations that many existing transmission-connected Demand Facilities may not be in a position to comply with the technical requirements set out in MPID 345 initially. EirGrid has developed a Compliance and Derogation Framework²³ in response to the challenge of implementation that enables a route towards compliance over time. The Framework intends to strike a balance between addressing the implementation challenges faced by Demand Facilities and ensuring that EirGrid can effectively manage an immediate and material risk to the power system.

Full detail of the proposed Framework is set out in EirGrid's MPID 345 submission, and a summary is provided in the CRU's call for further representations published in July ([CRU202704](#)). The proposed Framework includes a streamlined group approach to derogations in addition to the standard derogation process. There are differences in how the group process is proposed to work for data centre Demand Facilities and non-data centre Demand Facilities due to the differing behaviour of the two groups. A key component of the Framework is the setting of Demand Utilisation Thresholds (DUTs) on data centre customers to limit demand that is not FRT-capable. To reduce the operational impact on Data Centres with multiple facilities, the proposed Framework includes a proposed 'portfolio' approach whereby the DUT of each connection agreement may be managed on a portfolio basis rather than an individual basis.

After the submission of the proposed Framework to the CRU in April, EirGrid provided the CRU with a proposed update to the Framework regarding the methodology for the setting of DUTs. The proposal was described in the CRU's call for further representations published in July ([CRU202704](#)). EirGrid identified three potential methods for calculating DUTs:

- Option 1: The existing approach as communicated in the Compliance and Derogation Framework submission to CRU of 1 April 2026 (using SCADA data);
- Option 2: Use of metering data; and
- Option 3: The higher of the DUT determined under Option 1 and 2.

3.1 Technical assessment: Compliance and Derogation Framework

TNEI carried out an independent technical review of the proposed Framework on behalf of the CRU. A copy of this report was published in July ([CRU202708](#)). TNEI also carried out a review of stakeholder representations, which is published alongside this decision. TNEI's overarching recommendation recognises the need for a framework to provide clarity for demand customers and to ensure compliance is achieved as soon as possible.

TNEI's report set out a number of recommendations:

²³ [Fault Ride Through / Active Power Recovery / Rate of Change of Frequency Grid Code Modification \(MPID345\): Compliance and Derogation Framework Proposal](#)

- EirGrid is proposing that Demand Facilities which opt for the group derogation process will be subject to a Demand Utilisation Threshold (DUT) from the effective date of the proposed modification. Demand Facilities which do not opt for the group derogation process will not be subject to a DUT at this point. While TNEI agrees that a group derogation process has the potential to be an effective way to manage the derogation review processes associated with MPID 345, TNEI believes there is a risk an incentive will be created for Demand Facilities to not opt for the group derogation process. Given the quantity of derogation requests expected, and the benefit of a streamlined process for addressing these requests, TNEI recommends that careful consideration is given to the creation, whether inadvertent or otherwise, of any potential incentives for Demand Facilities to avoid the group derogation process;
- TNEI recommends extending the timeline for the submission of compliance plans to 6 months for both group and non-group process data centre derogation applications, and to provide 12 months for all non-data centre applications. They suggest that in lieu of earlier delivery of detailed compliance plans, Demand Facilities could give a commitment to engage with the compliance process in advance of the grid code modification date;
- TNEI recommends extending the derogation length to 5 years for group process non-data centre applications, noting the material difference in response to FRT events between data centre and non-data centre Demand Facilities;
- TNEI acknowledges the cost and impact on renewables that the allocation of a DUT will have. They recognise that by allowing non-compliant demand to remain on the system it drives the need for operational measures that impact on renewables to continue. However, on balance, they recommend approval of the implementation of temporary DUTs for demand customers to allow time to comply;
- TNEI recommends that further consideration is given to the suitability of the portfolio approach. They suggest that the proposed approach may create a suboptimum incentive for parent companies to quickly achieve compliance at some but not all of their data centres, and could result in non-compliant demand being reallocated and concentrated within a small geographical area, increasing system risk;
- TNEI recommends approval of the Demand Facility categorisation into data centre customers and non-data centre customers, given the demonstrably different behaviour of the two categories during system events;
- TNEI recommends that EirGrid considers feedback from Demand Facilities on any potential efficiencies which could be brought to the compliance process; and
- TNEI agrees with the proposed allowance of an increased site-specific DUT during temporary peaks. They recommend ongoing monitoring to ensure a material number of Demand Facilities are not experiencing these peaks at the same time and further recommend that text is added to the framework to allow for a revision of the 10% peak allowance in the event EirGrid monitoring indicates it is creating system security issues.

The CRU agrees with TNEI's recommendations to modify EirGrid's proposed framework. The timeline for the submission of compliance plans will be extended to 6 months for both group and non-group process data centre derogation applications, and 12 months will be provided for all non-data centre applications. The derogation length will be extended to 5 years for group process non-data centre applications. The CRU also agrees with TNEI's recommendation to ensure the 10% peak allowance is subject to ongoing monitoring by EirGrid and may be revised by EirGrid if required to protect the integrity and security of the system. Having considered TNEI's assessment, the CRU has decided that the portfolio approach should not be implemented. Further information is provided on this in Section 3.3.3.

3.2 Technical assessment: EirGrid Study Guides

EirGrid has developed two study guides for the model simulation and data requirements for Demand Facilities to achieve compliance. TNEI completed a review of the study guides for the CRU. TNEI set out a number of areas where greater clarity and consistency would improve their application and reduce the potential for differing interpretations between EirGrid, developers, OEMs and consultants. In particular, they stated that the guides would benefit from:

- Clearer treatment of site protection settings;
- Distinction between critical IT/UPS load and non-critical auxiliary load;
- Circumstances in which OEM evidence or generic models may be accepted;
- Inconsistencies in the allowable simulation software platforms;
- Definition of changes that would constitute a material change requiring reassessment; and
- Shared obligation regarding timelines.

As set out in Section 4, the CRU recommends the establishment of a technical working group chaired by EirGrid which will consider matters relating to the implementation of MPID 345 and the framework. EirGrid should continue to engage with stakeholders via the working group to refine and update the study guides as required.

3.3 Stakeholder Representations

Following the formal submission of MPID 345 and the proposed Framework, the CRU requested and received direct representations from stakeholders in relation to both proposals in April 2026. The CRU requested and received further representations from stakeholders in relation to a number of topics pertaining to the proposals in July 2026. The CRU has considered each of the individual representations received and the issues and concerns expressed within. The following sections discuss some of the common themes relating to the proposed Compliance and Derogation Framework which have emerged through direct representations to the CRU.

3.3.1 Distinction between demand user types

Some representations stated that the Framework unfairly distinguishes between data centres and non-data centres, and that there is no legal justification for this.

The CRU has reviewed the evidence provided by EirGrid outlining the rationale for the distinction between data centres and non-data centres in the Framework. EirGrid has provided additional information to the CRU on this point, noting that the technical justification is linked to:

a) The distinguishing characteristics of data facilities: Approximately 90% of a data centre's demand is IT equipment. This IT equipment is designed to operate within certain voltage tolerance limits, which are not compatible with certain transmission system fault characteristics. Data centres address this by having UPS storage systems, which they can switch demand to temporarily when faults are detected on the transmission system. Non-data centre demand is more diverse in terms of its makeup and includes motors, pumps, fans, compressors, heating equipment and some IT/UPS equipment. Generally, this load is less sensitive to voltage dips and can continue operating through transient faults on the transmission system.

EirGrid further noted that data centre demand is heavily concentrated in the greater Dublin area, whereas non-data centre demand is more geographically dispersed, making it less susceptible to any single fault or voltage dip event. It has also been observed that data centre facilities are more likely to respond to a distant fault on the network than non-data centre facilities.

Data centre demand is significantly higher than non-data centre demand²⁴, and while data centre demand is continuing to grow at a rapid rate, non-data centre demand reduced in the past year.

b) Recorded performance during actual fault events: EirGrid's analysis of the events to date evidences different response behaviour between data centres and non-data centre demand during a transmission fault. This analysis is included in the EirGrid/SONI Information Paper.²⁵ The observed response demonstrates the much greater sensitivity of data centre demand to faults when compared to non-data centre demand.

c) Data centre Demand Facility modelling: EirGrid's system modelling, which is based on data provided by data centres, indicates that up to 90% of data centre demand would reduce for credible contingency events such as a three-phase fault in the Dublin area.

TNEI states in its report that the proposal to separate data centre and non-data centre facilities is appropriate based on the demonstrably different behaviour of the two categories of Demand Facilities during past faults. The CRU considers that the difference in treatment

²⁴ Data centre demand is currently at approximately 900MW (transmission and distribution); non data centre transmission connected demand is approximately 300MW.

²⁵ [Large Demand Facility Fault Ride Through Issue and Proposed Solutions: Information Paper | EirGrid and SONI](#)

between data centres and non-data centres is therefore justified based on the technical information provided.

3.3.2 Distinction between group and non-group derogations

Some representations noted that the Framework unfairly distinguishes between users applying for derogations under the group process and those under the standard derogation route. It was noted that the proposed design of the group and non-group derogation routes creates a two-tier system with a more burdensome approach for those applying for a derogation under the non-group process. Representations noted that applicants for a derogation under the non-group process would not be prioritised, whereas EirGrid commits to processing applications under the group process in a defined period of time. This creates additional risk for those who do not opt for a group process derogation as they will be deemed non-compliant with the modification until their application is processed and a derogation approved and is considered discriminatory treatment.

The CRU has considered this point. The group derogation approach has been designed to provide a streamlined assessment for users who opt to apply for a derogation under that route. The CRU notes that there are benefits associated with the group process for users in terms of certainty regarding the approval of a derogation and the timing of its assessment. The CRU however does not consider that it is discriminatory to users who opt to apply for a derogation under the standard derogation route. The standard derogation route has not been made more challenging for users who opt to use it; it remains unchanged. The group process was proposed to manage the high volume of derogation requests in a transparent and pragmatic manner.

The CRU is aware there is a risk an incentive will be created for Demand Facilities to not opt for the group derogation process. Such an incentive may arise if Demand Facilities take the view that DUTs will not be applied under the non-group derogation process. For the avoidance of doubt the CRU takes the view that DUTs can apply equally to those applying under the non-group process for a derogation. A DUT effectively mitigates the risks associated with non-compliance with the modification. The CRU recognises that EirGrid's recommendation on a derogation under the non-group process will consider all the circumstances, which will include whether a DUT is appropriate and whether there is reason to treat those applying for a non-group derogation differently from those applying for a group derogation.

3.3.3 Portfolio approach

In response to feedback from stakeholders, EirGrid incorporated a "portfolio approach" in its proposed Framework. The portfolio approach provided for the DUT for each Demand Facility to be averaged or re-allocated between multiple demand facilities which are wholly owned by the same parent company. TNEI's report set out its concerns relating to the portfolio approach, specifically that it may create sub-optimum incentives in achieving compliance and increased system risk by concentrating non-compliant demand within a smaller geographic area. The CRU received mixed views from stakeholders regarding the portfolio approach. Some representations supported it, stating that it would provide an important incentive for demand users with more than one impacted Demand Facility to opt for the group derogation approach. Others noted that the proposed portfolio approach only applies to companies with

multiple connections and does not benefit single site connections and suggested that it creates an unjustified structural inequality in the framework. To ameliorate this, one representation proposed a dynamic DUT system which would give single-site operators access to more flexibility by tying restrictions to the actual system security need at a given time rather than to a static limit.

Notwithstanding that, the CRU has decided to reject the proposed portfolio approach in line with TNEI's recommendations. The CRU agrees with TNEI that the portfolio approach may reduce the incentive to comply with MPID 345 across all sites. The CRU acknowledges that the implementation of MPID 345 will have different impacts on different Demand Facilities. It is therefore important that the Framework incentivises all Demand Facilities equally towards compliance.

A representation suggested that EirGrid would be able to manage the risks noted by TNEI as they already have control over the Maximum Import Capacity (MIC) under each Connection Agreement. However, the DUT will be set below the MIC, meaning there could be a material increase in demand at a non-compliant site if another site in the portfolio becomes compliant. The representation also stated that EirGrid's prior approval would be needed for any reallocation of DUT capacity on a portfolio basis. While EirGrid could assess each reallocation across a portfolio on a case-by-case basis, such reallocation could lead to complex knock-on impacts which are challenging to assess. The risks from reallocation are nuanced and the impact needs to be considered on the basis of multiple sites rather than individual sites and therefore is not suited to this type of case-by-case assessment.

3.3.4 Demand Utilisation Threshold (DUT)

Some representations highlighted that the DUT would effectively limit the contracted MIC for a site, which would have serious consequences for the commercial activities of the site, including potential impacts on third party contracts. It was also noted that the DUT methodology did not consider the impact of a DUT on individual profiles and would have a disproportionate impact on small and single connection sites. Representations also suggested that EirGrid has not given sufficient consideration to the proportionality of the solution (in relation to both the modification and the framework), and the impact on businesses has not been considered. Some representations disagreed with the use of data from the 2025 calendar year to calculate DUTs, stating that it unfairly discriminates against customers who have continued to ramp their demand in 2026 and recommended that more up-to-date data is used.

The CRU recognises the potential impact that a DUT may have on impacted businesses. However, the CRU also considers that EirGrid has assessed a range of technical alternatives to MPID 345 but has not identified any suitable technical solution to address the growing FRT risk, apart from the implementation of MPID 345 and the use of DUTs, pending industry compliance. The CRU considers that the current methodology to allocate DUTs is transparent and fair. While the CRU understands the points raised regarding risk profiles of individual sites, the CRU does not consider that a transparent methodology could be developed that can factor into account individual risk profiles of each connection. This is particularly the case when the analysis of potential faults and fault reactions of connections is based on a wide range of scenarios.

Some representations noted that Transmission Use of System charges are calculated with reference to MIC, and raised concerns that if a customer's full MIC is not usable, it would be unfair for the customer to pay charges based on the full MIC. The CRU notes that in most cases, the Demand Network Capacity Charge (DNCC) is calculated based on metered demand until demand falls below 80% of a customer's MIC, at which point the DNCC is calculated based on the Minimum Charging Capacity (80% of the MIC in most cases)²⁶. Therefore, a reduction in demand arising from a DUT is unlikely to affect the Demand Network Capacity Charge applied to customers. If a customer wishes to reduce their MIC, the MIC Administration Policy for Customers Connected to the Transmission System²⁷ sets out the process for doing so.

Regarding the use of data from the 2025 calendar year to calculate DUTs, while it would be possible to use more recent data, it would mean that all DUTs would need to be recalculated. Customers whose demand has increased in 2026 could receive a higher DUT, while customers whose demand has not increased since their DUT was communicated could be negatively impacted through a reduction in their previously communicated DUT. This would inadvertently reward facilities that grew their demand during a period when the risk and the likelihood of a demand utilisation threshold based on previous demand had been communicated, while negatively impacting facilities that slowed or paused growth to assist in managing the risk to the security of the grid. As such, the CRU considers that the best option is to retain the use of data from the 2025 calendar year.

3.3.5 Compliance monitoring

A representation in April raised concerns regarding the approach to compliance monitoring, noting that customers do not have access to the same data that EirGrid intends to use to develop DUTs.

The CRU requested that EirGrid consider this point further, noting that it is important that customers can actively manage and monitor compliance with a DUT. EirGrid submitted three potential options referred to in Section 3. The CRU invited feedback on these options in its request for further representations in July.

Several representations expressed support for the use of meter data (option 2), noting that it is the most transparent and independently verifiable methodology. No representations argued in favour of option 1 or option 3. Two representations noted that the potential alteration to the compliance monitoring methodology had not been shared with impacted users prior to the request for further representations in July and requested the opportunity to review and comment further on the methodology once full details are available.

To ensure that customers have the ability to manage and monitor their compliance with DUTs, the CRU has decided that metering data will be used for DUT compliance monitoring in addition to the calculation of the DUTs. As set out in EirGrid's proposal, this approach will result in changes to DUT estimates for all customers. The CRU requests EirGrid to engage

²⁶ [EirGrid Statement of Charges 2025-2026 | EirGrid](#)

²⁷ [MIC Administration Policy | EirGrid](#)

further with affected customers on the finalised compliance methodology to ensure transparency.

3.4 CRU Decision

Having considered the urgency of resolving the FRT issue, the representations received by stakeholders, and TNEI's assessment, the CRU has decided to approve EirGrid's²⁸ proposed approach to MPID 345 compliance and derogations, with some alterations. Specifically, the CRU has decided that the Framework should be updated as follows:

- the timeline for the submission of compliance plans will be extended to 6 months for both group and non-group process data centre derogation applications, and 12 months will be provided for all non-data centre applications;
- the derogation length will be extended to 5 years for group process non-data centre applications;
- the portfolio approach will not be implemented; and
- the source of data for calculation of and monitoring of DUTs will be updated from SCADA to metering data.

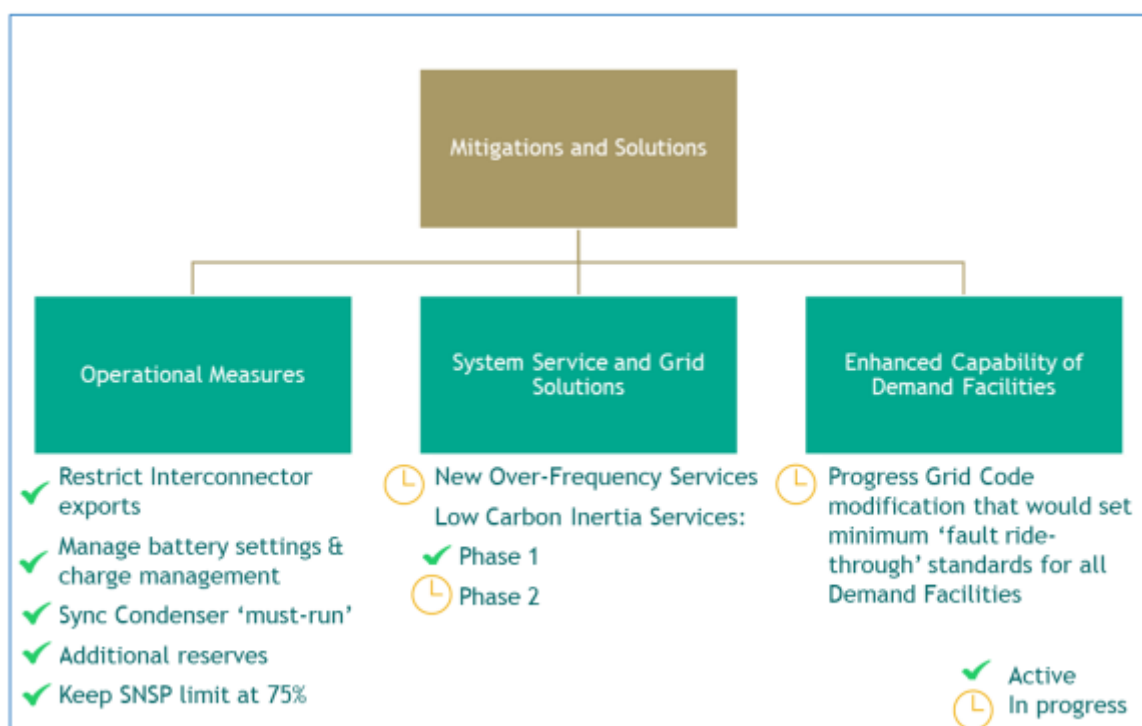
EirGrid has published an updated version of the Framework on its website to ensure impacted parties have access to the updated document. The updated Framework is also published alongside this paper on CRU's website for completeness.

The CRU considers that the framework provides guidance and certainty regarding the approach that will be taken by EirGrid in relation to compliance with MPID 345 in the immediate term. The CRU recognises the importance of monitoring this situation under review. As set out later in Section 4 of this paper, EirGrid will be required to carry out modelling and analysis on the impact of FRT risk and costs over time, as well as the impact of supporting solutions, such as additional reactive power support, inertia and reserves services. Section 4 also sets out that EirGrid will be required to report to the CRU on a quarterly basis on a range of other matters including compliance rates, plans and other compliance matters raised through the newly established FRT working group. These reporting requirements will allow the CRU to monitor the effectiveness of MPID 345 and the Framework in addressing demand FRT risk. It is not expected that this information will impact the implementation of this framework in the immediate term. Matters such as the treatment of freed capacity will require further consideration and detailed analysis before any decision can be made. As detailed in Section 4, the CRU also recommends the establishment of a working group chaired by EirGrid which will consider matters relating to the implementation of MPID 345 and the framework.

²⁸ The CRU notes that formal approval of the Compliance and Derogation Framework is not necessary in terms of s.33 of the Electricity Regulation Act 1999 or under the terms of the Grid Code. However, the CRU has decided to approve EirGrid's intended approach to derogations in the interests of transparency and regulatory certainty.

4 Future Considerations

EirGrid has advised of a series of significant operational measures which are currently being employed to maintain operational security limits pending implementation of a solution to address FRT risk. These measures are detailed in the EirGrid/SONI Information Paper and in EirGrid's updated Information Paper which the CRU published in July. The operational measures are all actively being utilised by EirGrid to maintain security limits, each of these measures represents a significant departure from the normal operational environment and drives costs for Irish consumers. The CRU is deeply concerned regarding the impact which the demand FRT risk currently has and will continue to have on the wider energy system.



This section sets out the CRU's position regarding the impacts of FRT on the energy system and takes into consideration the representations received regarding wider system impacts. It also sets out the CRU's position in relation to how this is managed and progressed by EirGrid in the immediate term.

4.1 Market and System Impacts

The CRU received representations from generators, solar industry, storage industry and an interconnector setting out concerns regarding the impact of the ongoing operational measures on the wider energy system and market participants. These concerns include but are not limited to;

- Increasing renewable dispatch down rates making it more difficult to maximise the use of low-carbon generation;

- Increasing imperfection costs due to increased dispatch down and curtailment actions;
- Limiting renewable energy progress by stalling System Non-Synchronous Penetration (SNSP) and Minimum Number of Conventional Units Online (MUON) trials with consequent impact on achieving national climate targets;
- Application of more stringent frequency control requirements on wind and solar units which are driving increasing operational costs for these units;
- Restricting interconnector export capabilities which is impacting their ability to deliver contracted de-rated capacity and creates a risk of adding additional costs to consumers;
- System wide battery charging restrictions which one respondent has characterised as providing “free” reserve to the system and which has significant financial impacts for storage assets; and
- Damaging investor confidence in flexible generation and battery energy storage projects.

Some respondents asked for clarity and timelines regarding the pathway to scale back these operational measures. The CRU acknowledges and shares these concerns.

The CRU requested information on the costs of these measures on consumers. EirGrid provided imperfections costs associated with interconnector trading and system services costs relative to the running of two synchronous condensers noting that they were continuing to assess the costs arising from the implementation of the operational measures. The CRU considers it important that EirGrid carry out further work to quantify the immediate and future costs and impacts of the current operational measures, many of which will ultimately be passed on to consumers, directly and indirectly. The CRU will engage with EirGrid further on next steps.

The CRU is aware of the significant implications that this is having on EirGrid and SONI's Joint Operational Policy Roadmap. The Operational Policy Roadmap sets out the structured programme through which the operational policies and constraints governing the All-Island electricity system need to evolve to facilitate the secure integration of renewable generation in line with Ireland's and Northern Ireland's decarbonisation targets. Key components of this plan are now significantly behind target. For example, plans to increase SNSP from 75% to 80% have been paused pending progress on an FRT solution. Similarly operational plans to reduce the Minimum Number of Units Online constraint (MUON) have also been significantly impacted pending progress on an FRT solution. These delays will have a direct impact on Ireland's progress on key targets under the Climate Action Plan. In 2025 the MUON constraint was the largest driver of curtailment of renewable energy in Ireland. Any delay to efforts to reduce the MUON constraint will have a direct impact on both imperfection costs, paid by consumers, and renewable targets.

Once MPID 345 becomes effective in the Grid Code, the CRU recognises that EirGrid will be unable to roll back the operational measures until a certain level of compliance has been

achieved by Demand Facilities. It is currently unclear how long it will take Demand Facilities to become compliant with MPID 345, and it is also unclear what level of compliance is required to begin reducing operational measures. To address this uncertainty, the CRU considers it essential that EirGrid commences analysis to identify how and when the existing operational constraints can be reduced over time and ultimately removed. This analysis should also include the planned operational measures, such as SNSP and MUON trials which have been paused as a result of FRT.

The CRU now requires EirGrid to:

- develop a roadmap to reduce and remove operational constraints in place to manage FRT;
- provide improved costs to the CRU regarding the ongoing and future cost impact to the system, and by extension to consumers; and
- Provide updates regarding progress to compliance of Demand Facilities to MPID 345 requirements.

Updates on the delivery of the above requirements should be provided on a quarterly basis to the CRU, with the first quarterly report to be delivered by end December 2026.

The CRU is aware that EirGrid may not have access to all necessary information at this stage to develop a detailed roadmap to reduce and remove operational constraints in place to manage FRT; however, the CRU expects and requires the submission of a suitable timeframe on when this plan will be delivered, within five weeks of the publication of this Decision.

4.2 Future demand growth and system readiness

The analysis conducted by EirGrid in relation to MPID 345 is based on the currently contracted data centre demand level of approximately 2 GW. EirGrid have acknowledged that the impact of data centre demand beyond this level, and analysis of other technical challenges are subject to further consideration. Noting the government's Large Energy-User Action Plan (LEAP)²⁹ announced in January 2026, the CRU considers it both important and prudent that this analysis commences without delay. Some respondents to the CRU's call for representations also supported the need to commence this analysis, with some noting the importance of early signalling to industry of changes in grid code requirements.

In addition to the modelling described above, the CRU also considers it important that as EirGrid continues to progress complementary measures which will alleviate the FRT challenge to a degree, such as additional reactive power support, inertia and reserves services, modelling should be continually updated to understand the impact of the roll out of these measures. This would include understanding if these measures as rolled out impact the 900 MW load rejection limit.

²⁹ [Large Energy-User Action Plan | Government of Ireland](#)

As outlined in Section 2.2.3, EirGrid will also continue to develop its modelling and analysis as more EMT data becomes available from Demand Facilities.

The CRU recognises the importance of ongoing modelling and analysis in this area by EirGrid. The outcomes of this analysis will be monitored by the CRU and will be made available to relevant stakeholders at appropriate intervals.

The CRU now requires EirGrid to:

- Progress the new and updated modelling detailed above.

Updates on the delivery of the above requirements should be provided on a quarterly basis to the CRU, with the first quarterly report to be delivered by end December 2026. The first quarterly report to the CRU should include a proposal on how updates to modelling are shared with relevant stakeholders.

4.3 All-Island and distribution connection considerations

The risk relating to FRT relates to both distribution and transmission connections and is an All-Island issue. SONI proposed an analogous modification to the Northern Ireland Grid Code which the Utility Regulator has approved. The CRU is also aware that the DSO, ESB Networks, intends to propose a related modification to the Distribution Code, to address the FRT risk at a distribution level and has commenced customer engagement. Noting that resolution of the FRT issue requires a solution at both transmission and distribution level, the CRU considers it important that the DSO progress the corresponding distribution code modification promptly.

4.4 FRT Implementation Working Group

It is important that demand customers are provided with appropriate support from the TSO in working towards compliance with the new technical requirements. As such the CRU considers that there is merit in the establishment of a technical working group, chaired by EirGrid, which would consider matters relating to the implementation of MPID 345 and the proposed Framework. For example, EirGrid should continue to engage with stakeholders via the working group to refine and finalise the study guides. The working group should also consider any potential efficiencies or improvements which could be brought to the compliance process. EirGrid should also use the working group to keep stakeholders informed of relevant information relating to continued analysis on FRT, reviews and revisions to the Load Rejection Limit, and updates regarding any possible modifications to the framework or further decisions relating to the implementation of MPID 345.

The CRU requires EirGrid to establish this working group without delay, and to provide updates to the CRU on this as part of its quarterly reporting. It is expected that the first meeting should be held in November.

4.5 Treatment of freed capacity

EirGrid identified an upper limit of 1,000 MW for non-FRT compliant Demand Facility capacity. EirGrid's proposals on DUTs aim to ensure that this capacity limit is not breached. TNEI noted in its review of the Compliance and Derogation Framework ([CRU202708](#)) that as Demand Facilities achieve compliance with FRT requirements, the freed capacity could either be allocated to additional non-FRT compliant demand connections or alternatively used to relax current operational measures.

Views from stakeholders regarding the treatment of freed capacity were mixed. Some representations recommended that freed capacity should be applied first to relaxing operational measures until the system is returned to its normal operating envelope. Others stated that there should be scope to reallocate capacity to alleviate the impact of MPID 345 on non-FRT compliant connections.

As set out in Section 4.1 the CRU is now requiring EirGrid to accurately determine the impacts of the ongoing operational measures, including costs to consumers and impacts on decarbonisation efforts. The CRU is also requiring quarterly updates from EirGrid regarding a number of topics including compliance rates with MPID 345, updates from the FRT working group and ongoing modelling and analysis regarding FRT risk. Any decision regarding potential reallocation of freed capacity cannot be made in isolation of this information. Notwithstanding this, the CRU considers it imperative that the current operational measures are addressed by EirGrid as a matter of priority where possible.

5 Next Steps

Alongside the publication of this paper, the CRU has issued a letter to EirGrid to confirm the approval of MPID 345. MPID 345 will come into effect five weeks from the date of this decision.

As set out in section GC.9.1 and GC.9.1.2 of the Grid Code, a user is required to report to the TSO without delay if it finds that it is, or will be, unable to comply with any provision of the Grid Code and shall promptly submit to the TSO a request for derogation.

The CRU is aware that the majority of Demand Facilities will be unable to comply with the MPID 345 modification immediately. It is expected that these Demand Facilities will report their non-compliance and submit a request for a derogation to the TSO before the effective date of the modification, in line with the process set out in the Compliance and Derogation Framework.

As set out in this paper, EirGrid will establish a working group focusing on the implementation of MPID 345 and the Compliance and Derogation Framework to provide additional guidance and support to industry where required.

The CRU is also requiring EirGrid to address additional concerns linked to demand FRT risk and MPID 345 which have been identified by stakeholders, through a series of actions. EirGrid will report to the CRU on these on a quarterly basis. This will inform any future considerations that need to be made by the CRU.