



# Generation Plant Closure Process

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## **1. Introduction and General Principles**

This paper outlines the process governing generation unit closure in Ireland and Northern Ireland. This process applies to:

- Generation Units connected to the Ireland and Northern Ireland transmission networks;
- Centrally Dispatchable Generation Units connected to the Ireland and Northern Ireland Distribution networks;
- Those controllable Power Park Modules connected to the Northern Ireland Distribution network.

The EirGrid and SONI Grid Codes<sup>1</sup> require generators to give three years' notice where they intend to derate or close their generation plant if the capacity of the plant being derated or closed is 50 MW or greater, or two years' notice otherwise.

These clauses are in the Grid Codes in order to manage the derations and closure of plant in a way that minimises the societal impacts where the plants are essential for system security and stability.

Connection Agreements require customers to comply with the Grid Code relevant to their jurisdiction. The Grid Code takes precedence over Connection Agreements and the Trading and Settlement Code. In particular, where notice period requirements are different in various documents, the Grid Code requirements apply.

A generator may seek a derogation from the Grid Code notice period requirement. This results in different considerations to the situation where no derogation is sought. For clarity, two processes are described in this paper:

1. The Generation Plant Closure Process
2. The Generation Plant Closure Process where a Derogation from the Grid Code Notice Period is sought

Flow charts for both processes are included in Appendix 2.

## **2. Generation Plant Closure Process**

This Generation Plant Closure Process describes the steps to be taken in relation to meeting Grid Code notice requirements and terminating Connection Agreements for generators wishing to close generation units.

### **Step 1: Generator submits notice to close and applies to terminate connection agreement**

A generator subject to the EirGrid or SONI Grid Codes must send the requisite notice to the relevant TSO if it intends to close a generation unit. It may send such a notice at any time. The notice should be sent on formal company letterhead to EirGrid at [gridcode@eirgrid.com](mailto:gridcode@eirgrid.com) for plant in Ireland or to SONI at [gridcode@soni.ltd.uk](mailto:gridcode@soni.ltd.uk) for plant in Northern Ireland. The

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<sup>1</sup> Requirement as set out in [EirGrid Grid Code \(V6\)](#) and [as per UR approval to SONI Grid Code on 17 Dec 2015](#).

notice should clearly indicate which unit or plant the generator intends to close and a date on which it intends to implement the change.

At the same time as submitting the notice, the generator shall submit an application to modify (terminate) their connection agreement.

- Transmission connected generators should submit their application to the relevant TSO.
- Distribution connected generators should submit their application to the relevant system or network operator, and send a copy at the same time to the relevant TSO.

The following need to be addressed as part of a termination request, and should be in a letter on headed paper from the contracted party requesting termination:

- Name of Contracted Party;
- Registered address of contracted party;
- Company registration number;
- Contact details for point of contact;
- Confirmation whether the customer wants to terminate part or all of the connection agreement;
- If partial – provide further details of what is requested to be terminated and what is requested to remain e.g. MEC, connection assets, etc.;
- Requested termination date; the date must be in line with Grid Code requirements e.g. for generators greater than 50 MW installed capacity, the date must be at least three years after the deemed complete application date, for generators less than 50 MW the date must be at least two years after the deemed complete application date.

### **Step 2: TSO Notifies Relevant Regulatory Authority**

As soon as reasonably practicable, but no later than five working days following receipt of the closure notice and application to terminate the connection agreement, the TSO will inform the relevant Regulatory Authority, the Commission for Regulation of Utilities (CRU) or the Northern Ireland Authority for Utility Regulation (UR), as appropriate. The purpose of this correspondence is to notify the relevant Regulatory Authority of potential security of supply issues. It is recognised in this process that this correspondence with the relevant Regulatory Authority may precede validation of the modification application.

### **Step 3: Validation of application to terminate connection agreement**

The TSO will aim to validate completed applications to terminate a transmission connection agreement within 10 working days. To ensure that the TSOs have the necessary information required to process the application the TSO may seek clarifications or further information as relevant from the generator within the 10 working day timeframe.

For distribution connected generators, the TSO will liaise with the relevant distribution system or network operator to determine the deemed completion date of the application.

The date on which the application is deemed complete is the reference date for the notice period requirement or as otherwise advised.

**Step 4: TSO assesses the application to terminate and issues modified connection agreement**

The TSO will assess the application to terminate the transmission connection agreement and will aim to issue a revised connection offer within the standard offer timeframe (within 3 months for SONI and 90 working days for EirGrid of the application being deemed complete).

The connection agreement(s) of the relevant generator will be modified / terminated as required by the relevant TSO as part of the offer process. The revised connection agreement will deal with the following, among others: scope of works, roles and responsibilities, charges, lead times for works.

For distribution connected generators, the TSO will coordinate with the relevant distribution system or network operator in the assessment of the application, and in identifying specific contract termination conditions, if any.

**Step 5: Generator accepts Revised Connection Agreement**

Generators in Northern Ireland have 90 calendar days and generators in Ireland have 90 working days in which to accept the revised connection offer.

### **3. Generation Plant Closure Process where Derogation from Grid Code Notice Period is Sought**

This process is set out for generators who seek derogation from the requirement to provide the TSO with minimum notice period in line with the Grid Code.

The relevant Regulatory Authority may, on a case-by-case basis, request the TSO to progress to Step 4 in the absence of a formal closure notice, where there is a demonstrable, material, and imminent likelihood of closure.

**Step 1: Generator submits notice to close and applies to terminate connection agreement**

A transmission connected generator may send a notice that it is seeking a derogation from Grid Code and Connection Agreement requirements to close its plant to the relevant transmission system operator (TSO) at any time. The notice should be sent on formal company letterhead to EirGrid at [gridcode@eirgrid.com](mailto:gridcode@eirgrid.com) for plant in Ireland or to SONI at [gridcode@soni.ltd.uk](mailto:gridcode@soni.ltd.uk) for plant in Northern Ireland. The notice should clearly indicate which unit or plant the generator intends to close and a date on which it is seeking to implement the change.

At the same time as submitting the notice, the generator shall submit an application to modify (terminate) their connection agreement.

- Transmission connected generators should submit their application to the relevant TSO.
- Distribution connected generators should submit their application to the relevant system or network operator, and send a copy at the same time to the relevant TSO.

The following need to be addressed as part of a termination request, and should be in a letter on headed paper from the contracted party requesting termination:

- Name of Contracted Party;
- Registered address of contracted party;
- Company registration number;
- Contact details for point of contact;
- Confirmation whether the customer wants to terminate part or all of the connection agreement;
- If partial – provide further details of what is requested to be terminated and what is requested to remain e.g. MEC, connection assets, etc.;
- Requested termination date; the date must be in line with Grid Code requirements, e.g. for generators greater than 50 MW installed capacity, the date must be at least three years after the deemed complete application date and for generators less than 50 MW the date must be at least two years after the deemed complete application date.

### **Step 2: TSO Notifies Relevant Regulatory Authority**

As soon as reasonably practicable, but no later than five working days following receipt of the closure notice and application to terminate the connection agreement, the TSO will inform the relevant Regulatory Authority, the Commission for Regulation of Utilities (CRU) or the Northern Ireland Authority for Utility Regulation (UR), as appropriate. The purpose of this correspondence is to notify the relevant Regulatory Authority of potential security of supply issues. It is recognised in this process that this correspondence with the relevant Regulatory Authority may precede validation of the modification application.

### **Step 3: Validation of application to terminate connection agreement**

The TSO will aim to validate completed applications to terminate a transmission connection agreement within 10 working days. To ensure that the TSO has the necessary information required to process the application the TSO may seek clarifications or further information as relevant from the generator within the 10 working day timeframe.

For distribution connected generators, the TSO will liaise with the relevant distribution system or network operator to determine the deemed completion date of the application.

The date on which the application is deemed complete is the reference date for the notice period requirement.

### **Step 4: Generator Seeks Derogation from Grid Code Notice Period**

The process for applying for a derogation in Northern Ireland is set out in the UR Guidance Document of February 2017<sup>2</sup>. For generators connected to the Northern Ireland

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<sup>2</sup> [UR Guidance Document on Derogations February 2017](#)

transmission system, the derogation request should be sent directly to UR Director of Wholesale Energy Markets at the UR and copied to SONI as the relevant TSO under the terms of the connection agreement. For generators connected to the Ireland transmission system, the derogation request should be sent to the TSO and copied to the Director of Energy Networks at the CRU.

A request for a derogation from the minimum notice period set out in the Grid Code shall contain as a minimum:

- a. Details of the applicant, including the full name and address of the generator;
- b. Generation Unit Identification in respect of which a derogation is sought;
- c. The version number of the Grid Code (and the relevant approved modification number where not yet included in a revised version of the Grid Code);
- d. Identification of the provision (i.e. GC Clause) with which the User is, or will be, unable to comply i.e. the plant closure notice requirement;
- e. The extent of the non-compliance i.e. the date by which the applicant wishes to close the plant;
- f. A clear description of the reason for seeking a derogation from the grid code plant closure notice period. If the reason is as a result of loss of revenues, or projected revenues this should be clearly stated. If the reason is financial, then an estimate of the cost of compliance with the required closure notice period must be provided. Provision of this information does not imply that either the TSO or the relevant Regulatory Authority will necessarily accept these as reasonable costs in its assessment of the requested derogation period.

The applicant should also satisfy themselves that they are meeting the requirements of GC.9.3 of the EirGrid Grid Code or the UR's February 2017 Guidance Document as relevant.

Note that these minimum requirements will need to be reviewed in future to cover generation plant subject to the Requirements for Generators Network Code.

### **Step 5: TSO Assessment of the derogation request**

In Ireland, a request for a derogation by a generator from the relevant Grid Code notice period should be sent to the TSO; EirGrid, who will assess the impact of the earlier closure date.

In Northern Ireland, a request for a derogation by a generator from the relevant Grid Code notice period should be sent to the Utility Regulator and copied to the TSO; SONI. The UR will ask SONI to assess the impact of the earlier closure date.

The TSO's derogation assessment may include (but will not be limited to):

- a. System security, reliability or stability implications;
- b. Economic Implications: cost of compliance to the applicant vs cost to the TSO, other users and / or the end customer of granting the derogation to the applicant;
- c. Strategic / Policy Implications.

To assess the system network impacts, the TSO will develop a simulation model of the future network with expected demand, generation connections and network build appropriate to the year in which the application applies. The generation adequacy of the system will be evaluated against the Loss of Load Expectation (LOLE) standard. The performance of the network will be tested against the regulatory approved Transmission System Security and Planning Standards relevant to the jurisdiction using the simulation model, for two cases: with and without the generation unit(s) in question.

If a single generator is seeking derogations for more than one unit, the TSO will assess the individual and cumulative system impact of all units closing earlier than the Grid Code requirement. The TSO will also, as necessary, engage with and take into account relevant considerations in respect of the distribution system.

Where the closure of a unit within the Grid Code notice period results in the network being outside standards, or the system being outside the generation adequacy standard, the TSOs will seek to evaluate the economic implications of the early closure. The TSOs will thus evaluate potential measures that may be required to ensure the system remains within standards.

In the first instance the TSOs would consider the potential for the market to resolve the system issues. Where it is clear that the market cannot deliver a solution in the relevant timeframe, the TSO will look to other non-market measures. It is not feasible to set out a prescriptive action list or order for such measures as each case will be unique. The impact of a unit's closure and potential solutions will depend on a combination of factors including the timeframe for closure, the location of the unit(s), the remaining and planned generation / demand side connections, the topography of the supporting network including existing and forecast load growth both system wide and locally, etc. Potential solutions may not be directly within the control of the TSOs, e.g. where replacement generation capacity is required or where actions may be required on the distribution system, and as such engagement with the relevant Regulatory Authority and others, including the DSO, may be required in order to determine the specific actions to be undertaken.

In considering potential options the TSOs are cognisant of the requirements as set out in Directive 2005/89/EC concerning measures to safeguard security of electricity supply and infrastructure investment, Directive 2009/72/EC concerning common rules for the internal market in electricity and the transposing legislation in Ireland and Northern Ireland respectively.

The TSOs may consider a range of solution options with the relevant Regulatory Authority and, where appropriate, government Department. The ultimate solution may be one or a combination of the following (more detail is provided in the Appendix):

- Potential for market solutions to resolve the system issue;
- Contracts for System Support Services or local / transmission reserve provision;
- Acceleration of connection works for new generation with connection offers or other provider;
- Network Reinforcement;

- Contract(s) for additional demand-side response;
- Contract(s) for replacement generation plant.

Following consideration of the potential solutions above, the TSO will take a view as to the feasibility of alternatives to solve the network issues arising from early closure. The TSO's assessment will indicate whether the closure being investigated would put the network outside the network security or generation adequacy standards within the three year notice period, and whether implementation of feasible solution options would keep the system within standards.

The TSO will prepare a report for the relevant Regulatory Authority setting out the impact of the derogation request and the range of potential solution options across the timeframe from early closure through to long term resolution. A solution may be feasible to meet the system requirements brought about by early closure.

### **Step 6: TSO submits its assessment of the derogation request to the RA**

The TSO will submit its assessment report to the relevant Regulatory Authority. A copy of the assessment will be sent to the applicant. It may be necessary to send a modified version of the derogation assessment to the applicant to protect commercial or confidentiality positions. If the TSO's assessment does not support a derogation, the TSO, as considered appropriate, will make reasonable efforts to contact the applicant to advise them of this in advance of sending the assessment to the relevant Regulatory Authority.

### **Step 7: The RA considers the derogation request and TSO Assessment Report**

The relevant Regulatory Authority will make the decision whether to grant or refuse the derogation request. The TSO's Assessment Report will inform this decision. The relevant Regulatory Authority will advise the TSO and applicant of its decision.

Where appropriate, the relevant Regulatory Authority will engage further with the TSO concerning any potential mitigation measures including further engagement as to whether and why such mitigation measures are indeed appropriate and necessary. The mitigation measures should be proportionate and where appropriate, targeted and time bound.

### **Step 8: TSO finalises the assessment of the connection application and issues a modified connection agreement**

If a derogation is granted by the relevant Regulatory Authority, the closure date requested in the derogation supersedes any other contractual dates that may exist. The TSO will consider this new date as the valid closure date in the application for termination of the contract agreement.

If a derogation is not granted, the TSO will seek confirmation from the generator that it wishes to proceed with the termination of its connection contract from the required date of the three year required notice period.

The derogation assessment provides much of the technical impacts of the early closure. The TSO will complete the assessment of the application to terminate the transmission

connection agreement and will aim to issue a revised connection offer within 60 working days of the derogation decision.

The connection agreement(s) of the relevant generator will be modified / terminated as required by the relevant TSO as part of the offer process. The revised connection agreement will deal with the following, among others: scope of works, roles and responsibilities, charges, lead times for works.

For distribution connected generators, the TSO will coordinate with the relevant distribution system or network operator in the assessment of the application, and in identifying specific contract termination conditions, if any.

### **Step 9: Generator accepts Revised Connection Agreement**

Generators in Northern Ireland have 90 calendar days and generators in Ireland have 90 working days in which to accept the revised connection offer.

### **Step 10: Formalisation of any necessary mitigation solution**

There is a considerable range of potential mitigation solutions as set out in Appendix 1. The process and timelines to complete will vary and it is therefore not possible to set out detail in this regard.

## Appendix 1 Description of Potential Mitigation Solutions

- **Potential for market solutions to resolve the system issue:**

In the first instance TSOs will explore and make recommendations, where appropriate, on whether mitigation solutions can be accommodated within existing energy, capacity and / or ancillary services arrangements or whether modifications to these arrangements would be appropriate to mitigate the issue.

- **Contracts for System Support Services:**

Where the impact on the closure is primarily on system operation (e.g. voltage issues) and does not result in a capacity limitation, there is a potential to address the issues through a contract for System Support Services. Depending on the service needed this may require development of appropriate location scalars for those services and an associated transparent, fair and robust ruleset.

- **Contract(s) plant for local / transmission reserve provision:**

Where a need is identified, contracts for local / transmission reserve services will also be considered, in particular in circumstances where there is an extended period before the delivery of other mitigation solutions that are required. Local / transmission reserve contracting options will depend on the impacts that need to be resolved.

- **Acceleration of connection works for new generation with connection offers / AGUs and demand side units:**

Where connection agreements are in place with new generation or demand side units, the TSO may engage with connecting parties and the asset owners to ascertain if such connections could be accelerated from a construction programme perspective. Where such parties are connecting to the distribution system and are of scale to mitigate or resolve the impacts identified the TSO will engage with the DSO and their customers as appropriate.

- **Network Reinforcement:**

The TSO will consider a range of transmission reconfiguration and reinforcement solutions to mitigate a breach of standards. In parallel and in line with its duty of cooperation, the TSO would engage with the relevant distribution system or network operator and the other TSO to consider solutions in their networks to the issues identified. The particular network performance issues identified in the assessment will determine the most appropriate technical solutions for consideration. For instance, thermal overloads will most likely require a circuit upgrading or a new circuit, whereas some voltage issues can be resolved by installation of local voltage support devices.

The timing of when the breach of standards would occur will determine whether any technically appropriate solutions are feasible. If the issue arises in the immediate future there are limits to the range of technical solutions available as the timeframe for delivery of any new major transmission reinforcement can be significant. Minor reinforcements that may be feasible within a three year window include re-configuring the network, minor equipment upgrades, redeployment of strategic spares, relocation of existing equipment.

- **Contract(s) for additional demand-side response:**

In the case of the closure of large thermal generators it is unlikely that there will be sufficient

aggregate demand response available to replace the generation lost. However, this option could form part of a broader response that might include new generation or of an interim measure until a network or generation solution is delivered.

- **Contract(s) plant for generation plant:**

In circumstances where there is a multiple year period before the delivery of replacement generation is required, the generation options will depend on the impacts that need to be resolved. If the impact is on the overall system generation adequacy standards then procurement of replacement capacity signalled through the Capacity Market Auction arrangements would be considered. If the impact is location specific and cannot be met through the capacity market arrangements, alternative arrangements may be required.

## Appendix 2 Process Flow Charts

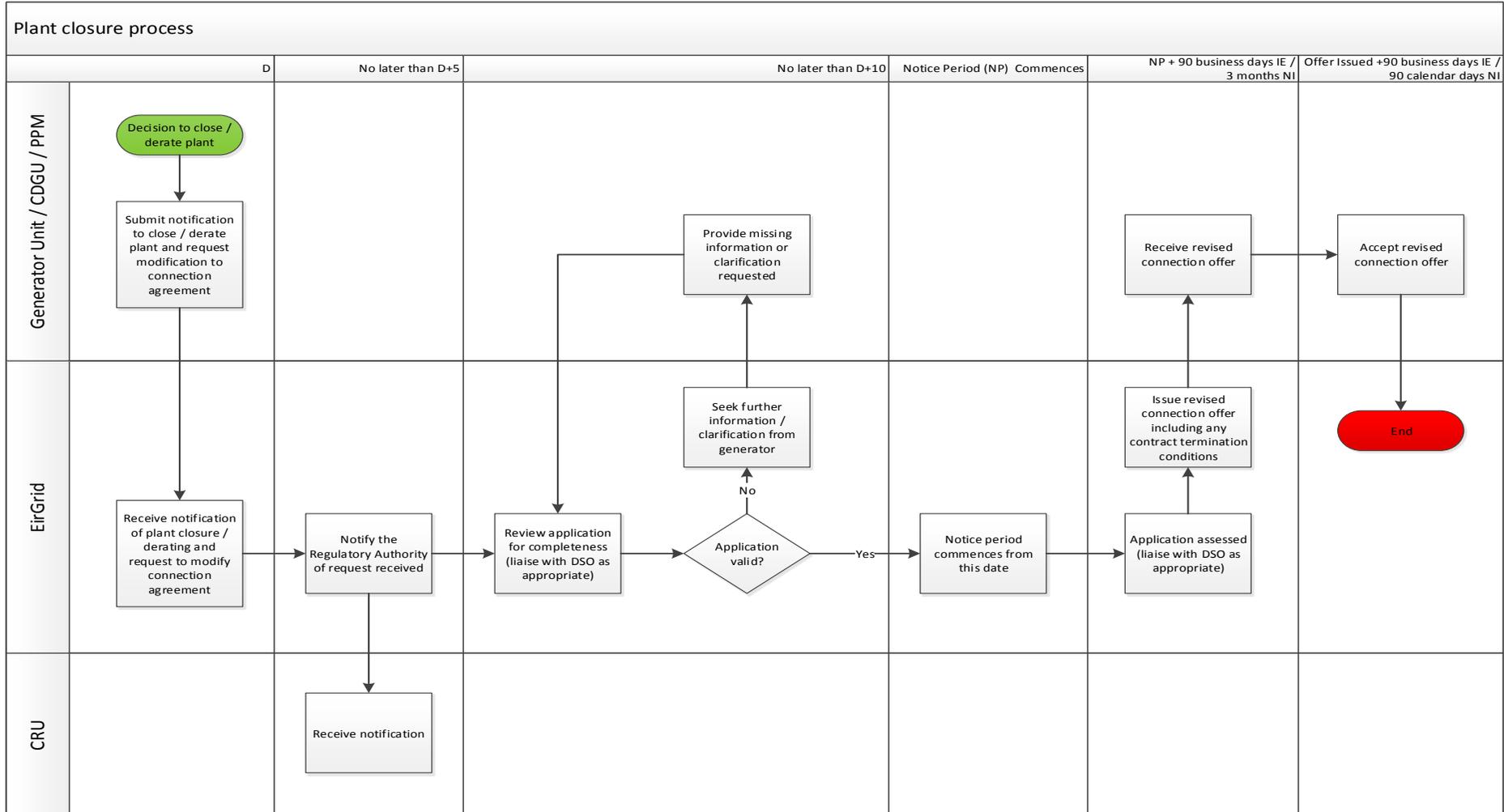


Figure 1 Generation Plant Closure Process Flow Chart

# Generation Plant Closure Process V.1.0

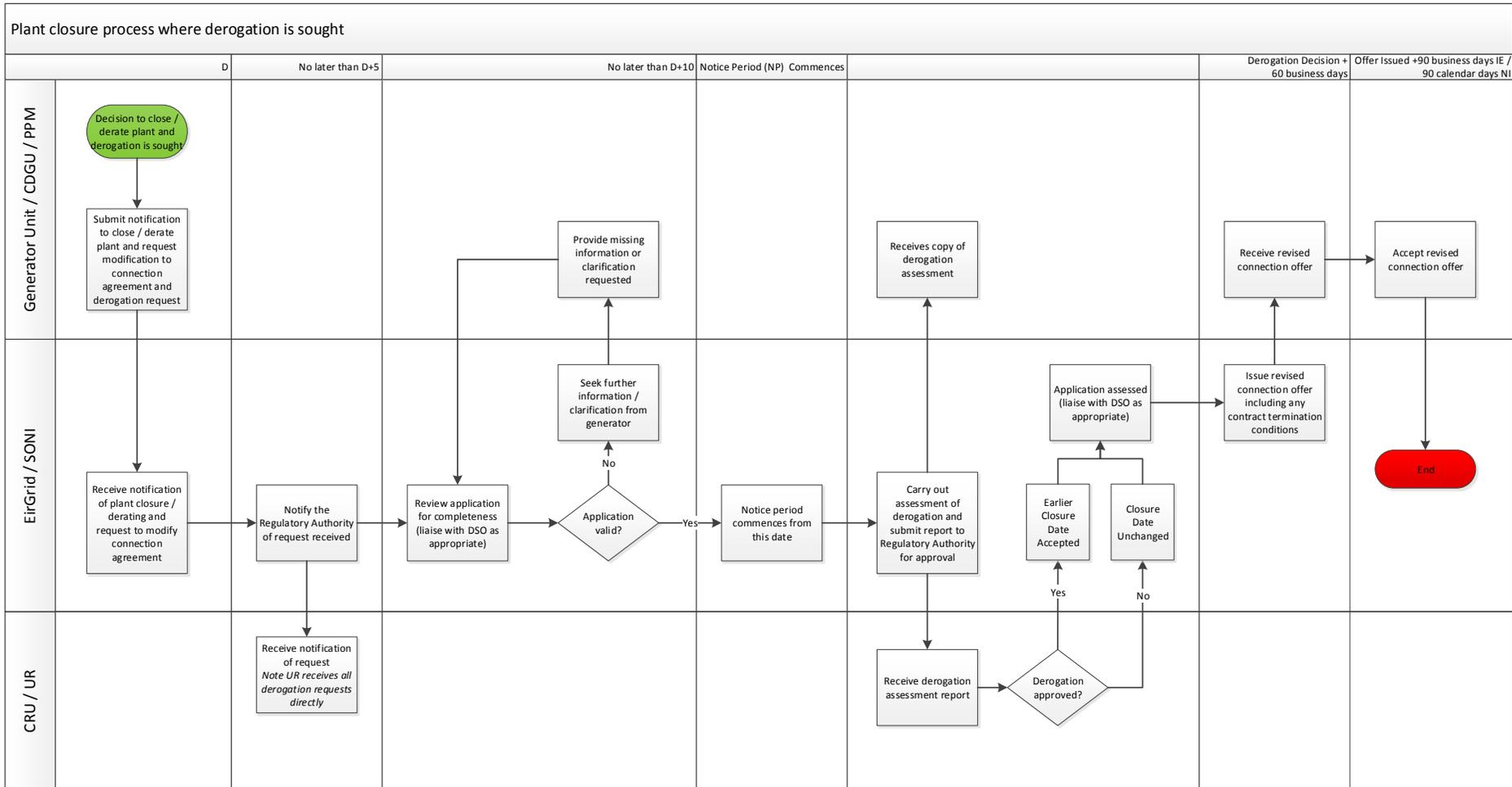


Figure 2 Generation Plant Closure Process Flow Chart where Derogation from Grid Code Notice Period is sought