

Consultation Document

The Terms and Conditions to act as Restoration service provider for Northern Ireland

In accordance with the requirements of
Articles 4 and 7 of the Commission
Regulation (EU) 2017/2196
Establishing a network code on
electricity emergency and restoration

6 July 2020



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For Consultation

1. Terms and Conditions related to Emergency and Restoration

Following a public consultation during November and December 2018, this document addresses SONI's requirement to develop a proposal on Terms and Conditions related to the provision of System Restoration services. Utility Regulator then made out a list of amendments which have been addressed in this document. Firstly, some background material is presented and then the relevant Network Code Articles from the Emergency and Restoration Code are re-produced. The subsequent section sets out SONI's approach regarding the relevant requirements.

1.1. Background

In accordance with COMMISSION REGULATION (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration, the Transmission System Operators (TSO) of a member state are required to submit the proposals to the relevant regulatory authority on the following:

the terms and conditions to act as restoration service providers on a contractual basis in accordance with [Article 4] paragraph 4, (if such terms and conditions are established on a contractual basis);

The Terms and Conditions relate to the characteristics of the service being provided as well as the possibility for aggregation and geographical location.

1.2. Relevant Network Code Articles

Article 4 (1) When applying this Regulation, Member states, regulatory authorities, competent entities and system operators shall:

- (a) apply the principles of proportionality and non-discrimination;
 - (b) ensure transparency;
 - (c) apply the principle of optimisation between the highest overall efficiency and the lowest total costs for all parties involved;
 - (d) ensure that TSOs make use of market-based mechanisms as far as is possible to ensure network security and stability;
 - (e) respect technical, legal, personal safety and security constraints;
 - (f) respect the responsibility assigned to the relevant TSO in order to ensure system security including as required by national legislation;
 - (g) consult with relevant DSOs and take account of potential impacts on their system;
- and
- (h) take into consideration agreed European standards and technical specifications.

Article 4 (2) Each TSO shall submit the following proposals to the relevant regulatory authority in accordance with Article 37 of Directive 2009/72/EC for approval:

- (a) the terms and conditions to act as defence service providers on a contractual basis in accordance with paragraph 4;
- (b) the terms and conditions to act as restoration service providers on a contractual basis in accordance with paragraph 4;
- (e) the rules for suspension and restoration of market activities in accordance with Article 36(1);
- (f) specific rules for imbalance settlement and settlement of balancing energy in case of suspension of market activities, in accordance with Article 39(1);
- (g) the test plan in accordance with Article 43(2).

Article 4(4) The terms and conditions to act as defence service provider and as restoration service provider shall be established either in the national legal framework or on a contractual basis. If established on a contractual basis, each TSO shall develop by 18 December 2018 a proposal for the relevant terms and conditions, which shall define at least:

- (a) the characteristics of the service to be provided;
- (b) the possibility of and conditions for aggregation; and
- (c) for restoration service providers, the target geographical distribution of power sources with black start and island operation capabilities.

Article 7 (1) The relevant TSOs shall consult stakeholders, including the competent authorities of each Member State, on proposals subject to approval in accordance with points (a), (b), (e), (f) and (g) of Article 4(2). The consultation shall last for a period of not less than one month.

1.3. TSO Considerations

SONI Ltd. is the licensed Transmission System Operator in Northern Ireland and is responsible for the operation of the electricity transmission system in Northern Ireland. As the designated TSO in Northern Ireland, SONI is responsible for establishing these terms and conditions. The Legal Framework in Northern Ireland comprises:

- The Electricity (Northern Ireland) Order 1992¹
- The Licence to participate in the Transmission of Electricity granted to SONI Ltd.²
- The Northern Ireland Grid Code (SONI Grid Code³)
- The Northern Ireland Power System Restoration Plan
- A Guide to the Power System Restoration for Northern Ireland
- The Design of the System Restoration Plan for Northern Ireland

In Northern Ireland, for the provision of Emergency Restoration, a Black Start Station is a Power Station identified pursuant to the relevant Generator's Connection Agreement as having the ability for at least one of its Centrally Dispatched Generating Units (CDGU) or Combined Cycle Gas Turbine (CCGT) Modules to start up as provided in the SONI Grid Code reference OC7.4.4.

The SONI Grid Code further details more specific requirements around Significant Grid Users, such as Generators, DSOs, and Demand Customers. The amount, nature and location of Black Start generation are reviewed on an annual basis and updated as necessary.

¹ <https://www.legislation.gov.uk/nisi/1992/231/contents>

² <https://www.uregni.gov.uk/sites/uregni/files/media-files/SONI%20TSO%20Consolidated%20Aug%202018.pdf>

³ <http://www.soni.ltd.uk/media/documents/SONI-GridCode-Version-Feb2020.pdf>

1.3.1. Legal Framework for System Restoration

The list of existing Legal Framework for System Restoration are stated in section 1.3

- The Electricity (Northern Ireland) Order 1992 is the overarching legislation which guides inter alia, the requirement for participants to be certified as independent with respect to electricity transmission, general duties of transmission licence holders etc.
- The Licence to participate in the Transmission of Electricity requires SONI to ensure sufficient resources to enable it to carry out the Transmission System Operator business activities (condition 3)
- Under the SONI Grid Code, SONI is required to establish a Power System Restoration Plan (Black Start) in the event of a partial or full shutdown of the power system in Northern Ireland.
- The PSRP is an emergency response plan in the event of an unplanned total or partial power system failure has occurred in Northern Ireland. It sets out guidelines and procedures, and gives examples based on certain assumptions. It does not supersede any standing operating instructions or anything set out in the Safety Rules regarding operation of the transmission system and for security purposes, sections of the plan will not be disclosed.
- SONI also produces a PSRP Booklet (A Guide to Power System Restoration for Northern Ireland) which is a published document that is a high level summary of the PSRP although it is not an operational document to be used by the TSO in the event of a blackout. The booklet covers the communication within different parties during a black start, establishing the status of all Black Start Power Stations, the division of the power system and complete restoration of the power system.
- Under the requirements of Articles 23 and 4.5 of the Commission Regulation (EU) 2017/2196 SONI produced a System Restoration Plan which is a design document covering the steps taken to produce a Power System Restoration Plan which details the actions the TSO Control Engineers must take to restore the power system following a total or partial black out. SONI has had a Restoration Plan in place for many years. In the wake of the new Network Code requirements on Emergency and Restoration (NCER), the System Restoration Plan (SRP) is being revised as per the requirements of Commission Regulation (EU) 2017/2196 published on the 24th November 2017.

SONI will provide services in Northern Ireland subject to Connection Condition Schedule (CC.S1.1.4) of the SONI Grid Code which relate to black start capability for generators as well as conditions outlined in the connection agreements. SONI is required to assess the impact of new users connecting to the power system in Northern Ireland and the ability of these users to provide black start services. During the restoration of the Northern Ireland Power System it is split into 3 subsystems with each containing a Black Start Power Station. Currently all three NI Power Stations capable of providing Black Start are being utilised within the PSRP. New Conventional Generators [CDGU's] applying to connect to the Transmission system will be required to provide Black Start services as per Grid Code specified in the connection code to ensure security of the Northern Ireland Power System.

Table 2 Legal Framework for System Restoration

Code	Guidance on	Reference
The Electricity (Northern Ireland) Order 1992	Overarching legislation	Non specific
The Licence to participate in the Transmission of Electricity granted to SONI Ltd	Availability of Resources and Undertaking of Ultimate Controller	Condition 3
SONI Grid Code - Connection Code	Black Start Capability	CC.S1.1.1.4 CC.S2.1.4 CC.S2.2.4
SONI Grid Code – Operational Code	Black Start Procedure	OC7.4
SONI Grid Code – Operational Code	Re-Synchronisation of De-Synchronised Islands	OC7.5

SONI Grid Code – Operational Code	Black Start Testing	OC11.6
SONI Grid Code – Scheduling and Dispatch Code	Dispatch Instruction	SDC2.4.2.14
Northern Ireland Power System Restoration Plan (NI PSRP)	Specific Details and Generator procedures on emergency restoration	Entire procedure
A Guide to Power System Restoration for Northern Ireland	Generator procedures on emergency restoration	Entire procedure
The System Restoration Plan Design Document	Compliance with the requirements of Commission Regulation (EU) 2017/2196	Articles 23 and 4.5 of the Commission Regulation (EU) 2017/2196

1.4. TSO Position

Based on the requirements of the Emergency and Restoration Code and the specific requirements for users connecting to the transmission system, the terms and conditions to act as a Restoration Service Provider are held in the existing national legal framework. SONI does not propose any additional modifications to the existing SONI Grid Code clauses. SONI does not propose to specify conditions at this time for aggregation or target geographical distribution of Black Start services. The amount and availability of Black Start generation is, at this time, sufficient for system security, and is kept under review. However, if availability of Black Start generation was to change adequately, SONI would specify conditions for aggregation and or target geographical distribution of Black Start services