



Contestability of Commissioning Joint Consultation Paper

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INFORMATION PAGE

Target Audience:

This paper will be of interest to parties involved in or concerned with connection to the electricity system at distribution and transmission level.

Related Documents:

- Contestability on the Distribution System – ESB Networks Key Principles and Processes Paper – CER Approved
- CER/10/056 Contestability for Distribution & Transmission Level Connections to the Electricity System – Decision Paper
- EirGrid Contestability of Connection Assets – CER Approved
- EirGrid Commissioning Procedures, XDS-GCP-00-001-R0
- ESB Networks Commissioning Procedures

Consultation Pack:

The following documents form part of this consultation and all changes to the contractual documents are provided in tracked changes:

- Joint Consultation Paper;
- TSO Connection Agreement;
 - Updated EirGrid Transmission Connection Agreement (Tracked Changed);
 - Updated EirGrid Transmission Connection Agreement – Schedule 10 (Tracked Changed);
 - Updated EirGrid General Conditions of Connection and Transmission Use of System (Tracked Changed);
- DSO Connection Agreement;
 - General Conditions for Connection of Industrial and Commercial Customers and Generators to the Distribution System (No Changes Proposed);
 - Updated ESB Networks Limited Connection Agreement (Tracked Changed);
 - Distribution connecting Generator Quotation Letter (QL) (Tracked Changed);
- Draft ESB Networks Company Standard Contestable Commissioning Specification (the ‘**Contestable Commissioning Specification**’).

Consultation Process:

Responses to this consultation should be returned by email using the attached comments register to paul.moran@eirgrid.com and alan.rossiter@esb.ie.

It is intended to publish all submissions received. Respondents who do not wish part of their submission to be published should mark this area clearly or separately enclose it in an Appendix, stating the rationale for not publishing this part of their comments.

This consultation will run for a four (4) week period. Parties are asked to respond by close of business on the 19 August 2016.

Contents

INFORMATION PAGE	2
EXECUTIVE SUMMARY	5
1 INTRODUCTION	6
1.1 BACKGROUND	6
1.2 PURPOSE OF THIS PAPER	6
1.3 STRUCTURE OF THIS PAPER	7
2 APPLICABLE TRANSMISSION AND DISTRIBUTION ASSETS	8
3 PROPOSED CHANGES TO CURRENT PROCESSES	10
3.1 PROPOSED CHANGES	10
4 PROCESS FOR ASSESSMENT	12
4.1 PROPOSED PROCESSES AND PROCEDURES	12
4.2 ASSESSMENT PROCESS	12
4.3 DISTINCT PARTS CAPABLE OF BEING CONTESTABLY COMMISSIONED	12
5 COMMERCIAL CONSIDERATIONS	13
5.1 MODIFICATION FEE	13
5.2 PASS THROUGH CHARGES FOR CONTESTABLE COMMISSIONING	13
5.3 STANDARD TIMELINES	14
5.4 MOD OFFER TIMELINES FOR 2017	15
6 ENERGISATION INSTRUCTIONS (EIs)	16
7 TRANSFER OF OPERATIONAL CONTROL	16
8 LIABILITIES AND CONTRACT CHANGES	17
9 REVIEW	19
10 CONSULTATION PROCESS	19

EXECUTIVE SUMMARY

The purpose of this paper is to set out the joint proposal of the Transmission System Operator, EirGrid Plc (**'EirGrid'**) and the Distribution System Operator, ESB Networks Limited (**'ESB Networks'**) (collectively the **'System Operators/SOs'**), to introduce contestability of commissioning for customer connections to the electricity system at transmission and distribution level respectively.

The present system of connecting customers to the transmission or distribution system facilitates both contestable connections (i.e. where connection assets are constructed by the customer) and non-contestable connections (i.e. where connection assets are constructed by ESB as the Asset Owner (the **'AO'**)¹). To date commissioning of the plant and secondary equipment that is intended to become part of the transmission or distribution system has been a “non-contestable” activity. Since the introduction of contestability for customer connections, industry representatives have sought to have it expanded to include commissioning. EirGrid and ESB Networks believe it is now appropriate to expand the scope of contestability to include commissioning of elements of the system in the manner set out in this paper.

The SOs are now seeking the views of interested parties in relation to the matters outlined in this paper and the accompanying documents which form part of this consultation pack.

Following the consultation phase, the SOs will prepare a consultation report and final recommendations paper for submission to the Commission for Energy Regulation (**'CER'**) for consideration and approval prior to implementation.

¹ The term Asset Owner(s) (AO/AOs) is used from time to time in this document as shorthand for references to ESB acting (through the ESB Networks business unit) in its capacity as the licensed Transmission Asset Owner (TAO) and/or licensed Distribution Asset Owner (DAO) as appropriate.

1 INTRODUCTION

1.1 BACKGROUND

The present approach of connecting customers to the transmission or distribution system facilitates both contestable connections (i.e. where connection assets are constructed by the customer) and non-contestable connections (i.e. where assets constructed by the Asset Owner). To date commissioning of the plant that will become part of the transmission or distribution system has been a non-contestable activity.

As commissioning is currently a non-contestable activity, the AO (through its agents) carries out commissioning using competent commissioners to carry out this work (whether or not the assets are built contestably or by the AO). These commissioners commission all assets that will become part of the transmission or distribution system and are responsible for providing the Declaration of Fitness (DoF) to the System Operators (SOs). This provides the SOs with the assurance they require that the assets are fit to be connected to the system. Since the introduction of contestability for customer connections, industry representatives have requested the expansion of contestability to allow customers take responsibility for commissioning of connection assets.

EirGrid and ESB Networks believe it is now appropriate to expand the current model to allow customers to contest the commissioning of additional assets at transmission (110kV & 220kV) and distribution levels (10kV, 20kV, 38kV and 110kV) as set out in this paper. This will allow customers to have more control over the programme for delivering their connection.

1.2 PURPOSE OF THIS PAPER

The purpose of this paper (the '**Joint Consultation Paper**') is to provide a high-level overview of the proposed changes required to a number of regulatory approved connection agreement related documents and the Contestable Commissioning Specification that are required in order to facilitate the introduction of contestability of commissioning for Contested Works. The Joint Consultation Paper sets out the proposed procedure for the purpose of accommodating contestability of commissioning for customer connections and summarises the associated contractual changes. Full details of the proposed contractual changes are set out in the tracked changed versions of the respective TSO and DSO connection documents that accompany this paper.

The SOs are seeking the views of interested parties on the introduction of contestability of commissioning for customer connections to the electricity system at transmission and distribution level respectively.

Following the consultation phase, the SOs will prepare a consultation report and final recommendations paper and updated suite of connection documents for submission to the CER for consideration and approval prior to implementation.

It should be noted that the Contestable Commissioning Specification is an evolving document and the current draft is published with this consultation for information purposes. The Contestable Commissioning Specification is not and will not be a regulatory approved document, in the same way the current TSO or DSO specification documents are not regulatory approved. The Contestable Commissioning Specification is an AO document and the content is driven by the technical, operational and safety requirements of the AOs and the SOs. It is proposed that on the introduction of contestability of commissioning, the then current version of the Contestable Commissioning Specification will be published. The AOs may amend the Contestable Commissioning Specification from time to time at their discretion, and any updates thereto will be published by the SOs from time to time. Customers proposing to contest commissioning shall comply with the most up-to-date version of the Contestable Commissioning Specification when nominating the proposed commissioner and as applicable throughout the commissioning.

1.3 STRUCTURE OF THIS PAPER

The paper is structured in the following manner:

- Section 2 outlines the applicable assets that may be contestably commissioned.
- Section 3 discusses the proposed changes to the current process.
- Section 4 discusses the process for assessment of commissioners.
- Section 5 discusses commercial considerations.
- Section 6 discusses Energisation Instructions.
- Section 7 discusses transfer of operational control.
- Section 8 discusses liabilities and contract changes.
- Section 9 discusses the review process.
- Section 10 discusses the consultation process.

2 APPLICABLE TRANSMISSION AND DISTRIBUTION ASSETS

It is proposed that all station primary and secondary plant in a contestably built greenfield station may be contestably commissioned, with the exception of:

1. Telecoms equipment;
2. Remote end station works, where the contestably built station interfaces with the existing HV/MV system; and
3. Equipment in a station that forms part of the existing HV system.
4. 400kV plant and equipment
5. Demand connections at Distribution level

The following is a non-exhaustive list of plant and equipment that may be contestably commissioned (with the exceptions as listed above);

- a) Circuit Breaker
- b) Current Transformer
- c) Voltage Transformer
- d) Power Transformer
- e) Surge Arrester
- f) Arc Suppression Coil
- g) Disconnects
- h) Busbar and Supports
- i) Cabling (low voltage) and wiring
- j) Power Cables
- k) Overhead lines
- l) Cabinets
- m) Battery System
- n) GIS including SF6 and Ancillary Systems
- o) Earthing
- p) All Protection Schemes including end-end testing but not in remote end station. End to end testing shall be done in collaboration with an Asset Owner(s) commissioner.
- q) SCS / non-SCS control system
- r) Interlocking
- s) Synchronising
- t) Phasing
- u) Common Systems
- v) Distribution boards

The commissioner is responsible as outlined in the Contestable Commissioning Specification for ensuring the synergy of all the individual components of the electrical design and protection scheme; that they perform in accordance with the station design; and are fit to be put into reliable and safe operation.

For the avoidance of any doubt, contestability of commissioning will be an option only for customers that have opted to contestably build their connection assets in accordance with current policy at the relevant time. A customer cannot elect to contestably commission assets that are constructed by the AO. In addition, if a customer elects to contestably commission, it must do so for all assets contestably built (for which contestable commissioning is allowed).

3 PROPOSED CHANGES TO CURRENT PROCESSES

The purpose of this consultation is to obtain industry feedback on the introduction of contestability of commissioning for customer connections to the electricity system at transmission and distribution level respectively. The proposed changes set out in the Consultation Pack documents solely related to those needed to facilitate the introduction of contestability of commissioning. No other changes to the contestable arrangements are proposed.

3.1 PROPOSED CHANGES

- Under the proposed changes customers would be entitled to contest the commissioning of the applicable transmission and distribution assets as set out in Section 2.
- Applications
 - Existing Contracted Customer wishing to contest the commissioning activities for their contested works would be required to submit an application to modify their Connection Agreement (subject to the various timescales and requirements summarised in this document).
 - New customers may elect at the outset to contestably commission, or may seek a modification of their offer following acceptance of a connection offer (subject to the various timescales and requirements summarised in this document).
- The customer will be required to advise the relevant SO of the proposed commissioner. The customer must notify the relevant SO of the proposed commissioner sufficiently in advance to accommodate the necessary tasks up to the commencement of commissioning as set out in the Contestable Commissioning Specification)
- The responsibility for ensuring that the commissioning is carried out in accordance with the SOs' commissioning procedures and specification will reside with the customer, similar to how the responsibility for the design of contested assets currently resides with the customer. In order to seek to ensure that commissioning continues to be carried out by appropriately qualified and experienced personnel, the AOs will assess the suitability of the proposed commissioners as set out in the Contestable Commissioning Specification.
- Similar to the current contestable build process, a customer must advise of the proposed start date of the contestable commissioning as per their programme of works. There is a minimum notification period in advance of commencement of commissioning as set out in the Contestable Commissioning Specification. This will allow for the SOs' resources to be scheduled appropriately and the non-contestable commissioning elements to be scheduled.
- Any individual proposed commissioners shall not have been involved in the design, procurement, construction or pre-commissioning of the contestable components.
- At a monthly customer meeting, the commissioner will highlight to the relevant SO, via the commissioning Gantt chart, when interface commissioning is due to occur, e.g. end to end testing. A customer will be required to give a minimum of 12 weeks notification prior to

commencement of interface commissioning in order to ensure availability of SO resources at the required time.

4 PROCESS FOR ASSESSMENT

Commissioning is one of the most critical aspects of the construction process. The commissioner is responsible for ensuring that the asset is fit for purpose as provided for under the relevant Connection Agreement, Grid Code and/or Distribution Code. It is therefore appropriate that the commissioner who provides such assurance should be appropriately qualified and vetted. To seek to ensure that this is the case, the assessment process for any contestable commissioner is set out in the Contestable Commissioning Specification (as may be updated from time to time). Customers proposing to contest commissioning shall comply with the most up-to-date version of the Contestable Commissioning Specification when nominating the proposed commissioner.

4.1 PROPOSED PROCESSES AND PROCEDURES

The proposed processes and procedures have been designed with a view to:

- (i) ensuring the quality of commissioning of network assets having regard to the licence obligations of the SOs and Asset Owner to ensure the development of a safe, secure and reliable electricity system; and
- (ii) providing a system for assessment that is both practically workable and based on transparent and objective criteria.

4.2 ASSESSMENT PROCESS

The assessment process will apply to each proposed commissioner who will be responsible for issuing a DoF for the project for which the customer originally proposed the commissioner(s).

4.3 DISTINCT PARTS CAPABLE OF BEING CONTESTABLY COMMISSIONED

For the avoidance of doubt, each project will have a maximum of three distinct parts capable of being contestably commissioned, being:

- (i) the Terminal Sub-Station;
- (ii) the overhead line; and
- (iii) the underground cable.

The Customer may provide a separate DoF from a separate commissioner for each of these three distinct parts provided, that such commissioner(s) has been accepted onto the Company's Commissioner Approvals Register (as set out in the Contestable Commissioning Specification) for that particular project.

The assessment process will be as set out in the Contestable Commissioning Specification

5 COMMERCIAL CONSIDERATIONS

This section highlights key commercial considerations for Customers considering undertaking contestable commissioning.

5.1 MODIFICATION FEE

The fee associated with a modification to opt for contestable commissioning will be a level 1.5 Modification Fee as applicable from time to time (at the date hereof €5,283 excluding VAT).

Please note in the case of a subgroup with shared contestable works, the current regulatory approved subgroup ruleset applies in that there must be ‘unanimity’ of the decision to contestably commission the contested assets and all members of a subgroup must request an offer/moderation offer to contest the commissioning and all subgroup offers must be executed in advance of commissioning works.

5.2 PASS THROUGH CHARGES FOR CONTESTABLE COMMISSIONING

Customers will be charged under their Connection Agreement on a pass-through basis for all SO or AO costs associated with the customer commissioning, a non-exhaustive list of what these changes will cover are;

- Reviewing CV’s of Customer nominated commissioners;
- Receipt of qualification / accreditation documents;
- Interviewing and assessment of Customer nominated commissioners;
- Reviewing third party commissioning test plans;
- Witnessing spot tests or re-running of commissioning tests;
- Providing set down settings;
- Carrying out spot commissioning tests or audits;
- Witnessing the commissioning of items of plant / protection / control;
- Auditing of commissioning documents; and
- Reviewing project and contract management.

It is estimated at this time, that for every 4 man-days of customer commissioning on a meshed station, and for every 7 man-days of commissioning on a tail fed station, the SOs/AOs will expend 1 man-day² for the purpose of the above.

² A man-day refers to a standard 8 hour working day.

The costs associated with the assessment of a commissioner are included in this estimate, and will be part of the pass-through charges. For guidance purposes only, it is estimated that on average approximately 10 man-days will be spent on the assessment process per commissioner.

Example:

Where the customer commissioning of a meshed fed station is 300 man-days, the estimate for SO/AO man-days would be 75 man-days which includes an estimate of circa 10 man-days for the commissioner assessment process

The number of man-days outlined above are estimates only. There is necessary uncertainty given that contestable commissioning is being offered for the first time. The number of man-days required may transpire to be different in practice. Further, the actual number of man-days will vary depending on the individual project, having regard to various matters including the SO’s/AO’s assessment of the standard of work being carried out (based on audits and inspection).

5.3 STANDARD TIMELINES

Subject to CER approval of contestability of commissioning, it is estimated that new applications to contestably commission should be made 18 months prior to commencement of commissioning. This will allow for a 20 business day application check and 90 business day offer processing such that the necessary contracts are in place no later than 12 months prior to commissioning.

<i>Task</i>	<i>Standard Durations</i>
New Application Check	20 business days
Offer Process	90 business days
Connection Offer – 3 month offer validity Period	60 business days
Contestable Commissioner Assessment	40 business days

Table 1: Standard Timelines

It should be noted that these timelines are indicative estimates only and timeline viability will be reviewed on a case by case basis during mod application checks and may depend, amongst other things, on the volume of applications received by the relevant SO.

5.4 MOD OFFER TIMELINES FOR 2017

A once-off waiver to the standard timelines above in Table 1 is proposed for projects which are due to commission in 2017. It is proposed that the standard timelines outlined in Table 2 will apply in respect of applications for such projects, as long as the application date is at least 7 months prior to commencement of commissioning.

Task	Mod Offer Durations
Mod Application Check	20 business days
Modification Offer Processing	30 business days
Connection Offer	30 business days
Contestable Commissioner Assessment	40 business days

Table 2: Mod Offer Timelines for 2017

The above timelines are on the basis that the only modification to the offer relates to contestable commissioning.

It should be noted that these timelines are indicative estimates only and timeline viability will be reviewed on a case by case basis during mod application checks and may depend, amongst other things, on the volume of applications received by the relevant SO.

All of the above timelines in Table 1 and Table 2 may differ in the case of a mixed TSO/DSO substations due to the complexities associated with such connections.

6 ENERGISATION INSTRUCTIONS (EIs)

Whilst the Customer will be responsible for procuring provision of the DoF by its commissioner(s), the relevant SO will provide “set down” protection settings at the remote ends and will be involved in end to end testing etc. The Customer will be expected to review the EI and provide comments back as per the current model. Please refer to the Contestable Commissioning Specification for more details.

7 TRANSFER OF OPERATIONAL CONTROL

Transfer of operational control from the customer to the relevant SO shall only occur following acceptance by the SO of the applicable DoFs, and subject to compliance with current protocols in respect of handover of operational control.

8 LIABILITIES AND CONTRACT CHANGES

The current drafting and provisions of the transmission and distribution Connection Agreements contemplate that commissioning of the contestable assets is carried out by the System Operators (this is managed by the Asset Owner on behalf of the SOs), with limited provision for customer commissioning of equipment on the customer side of the connection. The SOs have reviewed the Connection Agreements in light of the proposal to introduce contestability of commissioning and have identified certain changes that are required both in respect of clauses associated with commissioning procedures and customer liability.

A track-changed version of each the relevant TSO and DSO connection agreement documents (including, in the case of the DSO changes to the Quotation Letter) form part of this consultation. These tracked changed documents show the proposed contractual changes which will apply to customers that opt to contestably commission the connection works.

In respect of changes to warranties, caps on liability and insurance, it is noted that under the existing arrangements, the commissioning process is a final control exercised by the Asset Owner which provides a strong level of comfort in respect of the quality of the contestable works. On the introduction of contestability of commissioning, the Asset Owner will be handing responsibility for this critical process over to the customer.

Whilst every effort will be made to ensure that there are robust procedures in place, in order to protect the interests of the SOs, the Asset Owner, and ultimately the UoS and final customer, it is vital that the SOs have adequate contractual protection and remedies in the event that the commissioning process fails to identify any issues with the contestable works. The proposed contract changes seek to appropriately apportion risk associated with the contestability of commissioning as between the customer responsible for the works, the SOs, and the Asset Owner (which is ultimately to the benefit of the UoS and final customer).

The key proposed changes, as reflected in the track changed versions of the Connection Agreements, are summarised below. Please note however, that all interested parties should review in full the proposed amendments to the Connection Agreement published with this consultation.

1. **Customer Commissioning**: The Connection Agreements will be amended to provide that the Customer will carry out commissioning of the contested connection works in accordance with the Contestable Commissioning Specification and to set out the customer's responsibilities and applicable procedures.
2. **Warranties**: The warranties in respect of contestable works will be extended to cover customer commissioning.

3. **Indemnity:** The Customer will indemnify the SOs (and ESB as Asset Owner) for any fines, penalties or third party claims arising as a result of failure by the Customer or its commissioner(s) to comply with the relevant commissioning requirements. This will include compensation for penalties imposed by CER caused by contestable commissioning, for example for outages.
4. **Commissioner Warranties/Indemnities:** The Customer will be required to procure warranties and indemnities from its commissioner(s) in accordance with good industry practice and, at the request of the relevant SO may be required to (i) assign the benefit of those warranties/indemnities to the SO or ESB, and/or (ii) enforce those warranties and indemnities.
5. **Cap on Liability:** The cap on liability in respect of the warranties and indemnity relating to commissioning will be increased to reflect the increased risk being borne by the SO/Asset Owner. The proposed cap is €6.5m, being commensurate with the proposed Professional Indemnity insurance requirement.
6. **Insurance:** As commissioning is a professional service, the customer will be required to procure that the commissioners carry Professional Indemnity Insurance. As Professional Indemnity Insurance is a claims made policy, it will need to be maintained for the warranty period in respect of the commissioning works. The Public Liability Insurance requirement for the DSO will also be increased commensurate with risk levels.

The insurance levels are as follows:

- Professional Indemnity with an indemnity limit of not less than €6.5m (in the aggregate); and
 - Public Liability Insurance with an indemnity limit of not less than €6.5m (this is a change in the Distribution System Connection Agreement only. This is the existing Public Liability Insurance requirement in the Transmission System Connection Agreement).
7. **Removal of Commissioner:** At the request of the Asset Owner, each System Operator will have the right to remove appointed commissioner if the Commissioning is not carried out in accordance with required Contestable Commissioning Specification and in such circumstances, the Customer will have to reapply to have another proposed commissioner assessed. In the event that the commissioner is replaced, commissioning of the asset will have to restart from the beginning of the commissioning process.
 8. **De-Energisation:** The Customer may be de-energised if commissioning is found post-energisation to not have been carried out in accordance with the requirements of the Connection Agreement and the Contestable Commissioning Specification.

9 REVIEW

Commissioning is one of the most critical aspects of the construction process. If the CER approves the proposal for contestability of commissioning, it will be introduced into the market for the first time.

The SOs and AOs will continuously monitor both the processes and procedures for contestable commissioning. As noted in section 1.2, the Contestable Commissioning Specification is an evolving document. The Contestable Commissioning Specification is not and will not be a regulatory approved document, in the same way the current TSO or DSO specification documents are not regulatory approved. The Contestable Commissioning Specification is an AO document and the content is driven by the technical, operational and safety requirements of the AOs and the SOs.

The SOs and AOs reserve the right to review part or all of the processes and procedures for contestable commissioning at any time. The outcome of which may result in an update to the Contestable Commissioning Specification and any updates thereto will be published by the SOs from time to time.

At all times the SOs reserve the right to withdraw the option of contestable commissioning for some or all of the contestable works where there is concern for the safe secure operation of the transmission and/or distribution system.

10 CONSULTATION PROCESS

Any decision to introduce contestability of commissioning will be subject to approval from the Commission for Energy Regulation (CER).

This consultation will run for a 4 week period. Parties are asked to respond by close of business on the 19 August 2016.

Responses to this consultation should be returned by email using the attached comments register to paul.moran@eirgrid.com and alan.rossiter@esb.ie.