

## Workgroup Consultation

# CM087: Introducing Connections Process to facilitate Competitively Appointed Transmission Owners

**Overview:** This modification is concerned with issues around TO-CATO Connections process to facilitate the introduction of Competitively Appointed Transmission Owners (CATOs) to the STC. This is to enable Onshore Network Competition for the design, build and ownership of Onshore Transmission assets.

## Modification process &amp; timetable



**Have 5 minutes?** Read our [Executive summary](#)

**Have 30 minutes?** Read the full [Workgroup Consultation](#)

**Have 240 minutes?** Read the full Workgroup Consultation and Annexes.

**Status summary:** The Workgroup are seeking your views on the work completed to date to form the final solution(s) to the issue raised.

**This modification is expected to have a: **Medium impact**** on ESO, Transmission Owners and CATOs (by introducing CATO arrangements).

**Governance route** Standard Governance modification with assessment by a Workgroup.

**Who can I talk to about the change?**

**Proposers:**

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**How do I respond?**

Send your response proforma to [stcteam@nationalgrideso.com](mailto:stcteam@nationalgrideso.com) by **5pm on 25 September 2023**.

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## Executive summary

This modification has been raised to solve issues around TO-CATO Connections process to facilitate the introduction of Competitively Appointed Transmission Owners (CATOs) to the STC.

### What is the issue?

The concept of CATOs develops from network re-enforcement which arises from the Network Options Assessment (NOA) process where User Connections may not be involved. Therefore, ESO believe that consideration should be given to what the appropriate connections process should be with respect of CATOs connecting to the National Electricity Transmission System.

### What is the solution and when will it come into effect?

**Proposer's solution:** ESO seek consultation with an STC Workgroup to consider and determine the appropriate connections process for CATO – TO. We are developing a process under the STC provisions for Investment Planning and this requires amendments to STC Section D and the creation of a number of STCPs. We seek a joint creation process with Workgroup members to ensure the final process provides a clear process for all parties.

**Implementation date:** Target date Q2 2024.

### What is the impact if this change is made?

Introducing the concept of CATO into the relevant industry codes establishes the obligations of CATOs and those entities interacting with the CATO assets, ensuring the safe, secure, and coordinated operation of the System. The introduction of competition to onshore electricity networks will provide efficient growth of the NETS and has a key role to play in improving efficiency in network investment and driving innovative solutions to network needs.

### Interactions

The proposed code changes form part of the package of work to establish the frameworks for competition in onshore electricity networks. The introduction of competition affects the STC, Grid Code, CUSC and SQSS among others. The ESO are proposing this modification in association with further modifications that will be progressed to the other GB Codes and frameworks during the period between Autumn 2022 and Spring 2024.

## What is the issue?

On 28 March 2022 Ofgem published its decision<sup>1</sup> to proceed with implementation of the competition model for the UK's transmission network. This has been underpinned by the publication of the Energy Security Bill<sup>2</sup>, which makes provision to enable competitive tenders for delivery of onshore electricity network assets. The party who wins a competition is often referred to as a Competitively Appointed Transmission Owner (CATO). The Bill will introduce powers to enable the Secretary of State to appoint a body to run tenders and to set criteria to determine a network project's eligibility to be competed. It will also extend Ofgem's power to make regulations which will set out the process by which tenders will be run.

To allow onshore electricity network competition to be implemented effectively, the competition processes, obligations, technical requirements, charges, and remuneration principles need to be embedded within the relevant codes and standards. The introduction of competition affects the STC, Grid Code, CUSC and SQSS among others. ESO are proposing this modification in association with the modifications that will be progressed to the other GB Codes and frameworks during the period between Autumn 2022 and Spring 2024.

The introduction of BETTA in 2005 led to the concept of Transmission Owners, with the requirements between the ESO and Transmission Owners being specified in the STC. In 2009 the STC was further adapted to introduce the concept of Offshore Transmission Licensees.

The STC Connections Process, as drafted in STCP18-1, is dependent upon a User Connection to the Transmission Network. In this case the User Connection could arise from Generation or Demand Connections.

The concept of CATOs develops from network re-enforcement which arises from the Network Options Assessment (NOA) process where User Connections may not be involved. Therefore, ESO believe that consideration should be given to what the appropriate connections process should be with respect of CATOs connecting to the National Electricity Transmission System.

## Why change?

For the UK to reach Net Zero by 2050 and achieve independence from all fossil fuels the UK needs an extensive programme of development and investment in the electricity transmission network. As part of this green energy transition, ESO expect to see a doubling in electricity demand driven in part by the electrification of heat and transport. This will require significant reinforcement and repurposing of the National Electricity Transmission System. The introduction of CATOs is aimed at contributing to this by introducing new parties to design, deliver and finance investment and to optimise delivery efficiency.

The Department for Business, Energy and Industrial Strategy indicate that, through the introduction of competition, consumers could see savings of up to £1 billion by 2050 on projects tendered over the next ten years. Ofgem requested for ESO to plan how competition could be included within the process of designing, building, and owning

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<sup>1</sup> <https://www.ofgem.gov.uk/publications/decision-early-competition-onshore-electricity-transmission-networks>

<sup>2</sup> [Energy Security Bill - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/bills/2022/energy-security-bill)

onshore transmission assets in the early stages of the project lifecycle, known as 'Early Competition'. ESO's Early Competition Plan (ECP) was published in April 2021.

Introducing the concept of CATOs to the relevant industry codes ensures the safe, secure, and coordinated operation of the Transmission System by establishing both the obligations on CATOs and those entities interacting with CATO assets and CATOs themselves. The first phase of the Early Competition procurement process (the pre-tender) is set to commence in the first quarter of 2024, necessitating that the proposed modifications be raised and progressed in line with the Code Administrator proposed timetable.

Following the completion of a competitive tender, a CATO will be awarded a Transmission Licence and categorised as an Onshore Transmission Owner. CATOs will differ from incumbent TOs insofar as, for instance, they will consist of project companies funded through a tender revenue stream to deliver a specific project based on network requirements. As a Licensed TO, CATOs will be subject to broadly the same obligations and frameworks.

## What is the solution?

### **Proposer's solution**

ESO seek consultation with an STC Workgroup to consider and determine the appropriate connections process for CATO – TO connections.

Our initial assessment has identified 3 options:

1. A new STCP process based on the existing Connections Offer Process STCP 18.1 using a Transmission Owner Connection Offer (TOCO) amended to facilitate a TO-TO connection based upon the *early* OFTO process.
2. A bespoke connection process featuring two bilateral agreements, one between the ESO and a CATO (site-specific requirements) and another between the CATO and the incumbent TO.
3. Utilise reinforced Section D Part 1, 2.3- Co-ordination of Transmission Investment Planning
  - All options above require changes to STC Section D and the creation of supporting STCPs

This modification is the second of three proposed modifications to the STC as part of the work being done to implement Onshore Network Competition. The first and third modifications are seeking to:

- Introduce the concept of CATO throughout the STC.
- Establish the obligations of CATOs in relational to completing additional works on their system.

The subjects of modifications 1 and 3 are out of scope of this first modification, although all three will be presented to Ofgem simultaneously.

## Workgroup considerations

The Workgroup convened 9 times to discuss the perceived issue, detail the scope of the proposed defect, devise potential solutions and assess the proposal in terms of the Applicable Code Objectives.

## Consideration of the Proposer's solution

The Workgroup agreed with the Terms of Reference but requested to extend TOR (d) to '(d) Consider the cross-code impacts that this modification has, with particular consideration of any consequential impacts to Grid Code, SQSS and CUSC' and to add an additional TOR '(e) Ensure that the proposed STC changes effectively implement the CATO regime in a proportionate manner, adopting minimum necessary change'.

The Proposer presented the 3 options for CATO/TO Connections to the Workgroup. After consideration and in line with the general view that there is a need for a formalised process, the TO-TO process was considered the most suitable option. The Proposer proceeded to share a high-level proposed diagram of the "UDFS Underpinned Process". Main highlights were:

### STC Proposed Alterations

Three options were presented to the Workgroup on determining an equivalent STCP 19.3 for the (CA)TO-(A)TO Connection Compliance Process. The Proposer's preferred option was described as the creation of an additional STCP 19.3a (removing User references) pointing to the Grid Code 'European Connection Conditions' addressing gaps in the STC. Several Workgroup members agreed to minimal change but did not fully agree on the preferred option. A Workgroup member representing the Onshore TOs offered to review existing STC/STCP obligations to see if they could easily be amended to apply the CATO connection process. There was some interest from the Workgroup in this, but there were also doubts as to whether this would be possible given the complexity of the proposed CATO arrangements. If an adjustment/evolution of existing STC provisions was indeed possible, the approach would likely need to be raised as a WACM at a later date.

### (CA)TO-(A)TO Interface

The Proposer described how principles would be established via high level reference diagrams displaying clear ownership boundaries, informing CATO-TO interfaces. The Proposer explained Interface Agreements would then be used to establish aspects such as access rights, responsibilities, and security. There was an agreement with regards to the need to add additional processes, but with the view to facilitate the entrance of new CATOs as opposed to redefine the entirety of the TO-TO interface process. Some Workgroup members considered that the STC already incorporates a lot of the requirements that are used for other parties and that can be used for CATOs, however there are gaps that need to be addressed to fully incorporate CATOs. Several Workgroup members felt referenced diagrams were a promising idea if they considered all possibilities such as differences in Scotland.

There were concerns regarding the absence of detail during the tender process suggesting that if the details of the tender process were comprehensible and requirements specified up front then the obligations of parties would be clear and transparent. The Workgroup considered the need for a process kin to STCP 16-1 but just to address the requirements for works on the adjacent network. The view was that with regards to build, CATOs should follow the existing process for TOs, the only complexity is with regards to how the new assets are then connected into the GB network, which might require existing TOs to extend or modify their networks to incorporate it.

## ESO

Workgroup members raised concerns with regards to further feasibility studies required as part of the tender process to facilitate the CATO entrance and how this is to be procured from the TOs as it is not codified.

A Workgroup member pointed out that TOs are not comfortable with use of legally underpinned agreement and would rather utilise a ‘Schedule’ of the STC. The Proposer agreed that the use of an agreement in the form of an STC Schedule governed by the obligations of all parties as STC parties would be preferable and committed to developing such Schedule.

The Workgroup discussed STCP 19-7 CATO-TO Connections Operational Notification and Compliance, and a comment was made by a Workgroup member suggesting that the user compliance testing didn’t follow the spirit of that proposed for STCP 18-5 where all the TOs are equal. Discussions were had around whether ESO should take the coordinating role in compliance issues, but an ESO member explained that they would like to move away from being the “middlemen”.

**Workgroup consultation question:** Do you have any other comments?

**Workgroup consultation question:** Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?

**Specific Workgroup consultation question:** Do you believe this modification facilitates the connection of a CATO to the transmission system in the most efficient and economic manner?

### Draft legal text

The draft legal text for this change can be found in Annex 3.

Clerical changes to a suite of STCP to make reference to CATO are also being made as part of the work to introduce the concept of CATO. The draft STCP documents have been included within Annex 3 for context and information purposes only.

## What is the impact of this change?

### Proposer’s assessment against Code Objectives

Proposer’s assessment against STC Objectives	
Relevant Objective	Identified impact
(a) efficient discharge of the obligations imposed upon transmission licensees by transmission licences and the Act	<b>Positive</b> The proposed modification ensures that commercial and technical obligations of CATOs, as transmission licensees, are clearly established.
(b) development, maintenance, and operation of an efficient, economical, and coordinated system of electricity transmission	<b>Neutral</b>



(c) facilitating effective competition in the generation and supply of electricity, and (so far as consistent therewith) facilitating such competition in the distribution of electricity	<b>Neutral</b>
(d) protection of the security and quality of supply and safe operation of the national electricity transmission system insofar as it relates to interactions between transmission licensees	<b>Neutral</b>
(e) promotion of good industry practice and efficiency in the implementation and administration of the arrangements described in the STC	<b>Neutral</b>
(f) facilitation of access to the national electricity transmission system for generation not yet connected to the national electricity transmission system or distribution system;	<b>Neutral</b>
(g) compliance with the Electricity Regulation and any relevant legally binding decision of the European Commission and/or the Agency.	<b>Positive</b> Legislation will enable Early Competition. Therefore it is necessary for changes to ensure resultant CATOs comply with all relevant regulations.

Note: the Proposer has revised the stated impact of these changes, taking on feedback from Workgroup during post-consultation Workgroup discussions.

<b>Proposer’s assessment of the impact of the modification on the stakeholder / consumer benefit categories</b>	
<b>Stakeholder / consumer benefit categories</b>	<b>Identified impact</b>
Improved safety and reliability of the system	<b>Neutral</b>
Lower bills than would otherwise be the case	<b>Neutral</b>
Benefits for society as a whole	<b>Neutral</b>
Reduced environmental damage	<b>Neutral</b>
Improved quality of service	<b>Neutral</b>

**Standard Workgroup consultation question:** Do you believe that CM087 Original proposal better facilitates the Applicable Objectives?

**When will this change take place?**

**Implementation date**  
Target date Q2 2024

**Date decision required by**  
Q2 2024.

**Implementation approach**  
No system or process change required.



**Standard Workgroup consultation question: Do you support the implementation approach?**

## Interactions

- |  |   |  |  |
|--|---|--|--|
| <input checked="" type="checkbox"/> Grid Code      | <input checked="" type="checkbox"/> BSC         | <input checked="" type="checkbox"/> CUSC | <input checked="" type="checkbox"/> SQSS |
| <input type="checkbox"/> European<br>Network Codes | <input type="checkbox"/> Other<br>modifications | <input type="checkbox"/> Other           |  |

The proposed code changes form part of the package of work to establish the frameworks for competition in onshore electricity networks, which has a key role to play in improving efficiency in network investment and driving innovative solutions to network needs, helping us meet our decarbonisation targets at the lowest cost to consumers.

Introducing the concept of CATO into the relevant industry codes establishes the obligations of CATOs and those entities interacting with the CATO assets, ensuring the safe, secure, and coordinated operation of the System.

Grid Code, CUSC and SQSS modifications have been raised. Initial engagement with Elexon indicated no consequential changes to BSC but engagement ongoing to ensure any potential changes are identified.

## How to respond

### **Standard Workgroup consultation questions**

1. Do you believe that CM087 Original proposal better facilitates the Applicable Objectives?
2. Do you support the proposed implementation approach?
3. Do you have any other comments?
4. Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?

### **Specific Workgroup consultation questions**

5. Do you believe this modification facilitates the connection of a CATO to the transmission system in the most efficient and economic manner?

The Workgroup is seeking the views of STC Users and other interested parties in relation to the issues noted in this document and specifically in response to the questions above.

Please send your response to [stcteam@nationalgrideso.com](mailto:stcteam@nationalgrideso.com) using the response proforma which can be found on the STC [CM087 modification page](#).

In accordance with Governance Rules if you wish to raise a Workgroup Consultation Alternative Request, please fill in the form which you can find at the above link.

*If you wish to submit a confidential response, mark the relevant box on your consultation proforma. Confidential responses will be disclosed to the Authority in full but, unless agreed otherwise, will not be shared with the Panel, Workgroup or the industry and may therefore not influence the debate to the same extent as a non-confidential response.*

## Acronyms, key terms and reference material

Acronym / key term	Meaning
BETTA	British Electricity Trading and Transmission Arrangements
BSC	Balancing and Settlement Code
CATO	Competitively Appointed Transmission Owner
CM	Code Modification
CUSC	Connection and Use of System Code
ECP	Early Competition Plan
NETS	National Electricity Transmission System
NOA	Network Options Assessment
OFTO	Offshore Transmission Owner
STC	System Operator Transmission Owner Code
STCP	System Operator/Transmission Owner Code Procedure
SQSS	Security and Quality of Supply Standards
TO	Transmission Owner
TOCO	Transmission Owner Connection Offer
WACM	Workgroup Alternative CUSC Modification

### Reference material

- [Energy Security Bill](#)
- [BEIS Guidance Note: Energy Security Bill factsheet: Competition in onshore electricity networks](#)
- [ESO Early Competition Plan final publication](#)
- [Ofgem's Decision on the development of early competition in onshore electricity transmission networks sets out the model of early competition and criteria for network project eligibility to be competed \(2022\)](#)

## Annexes

Annex	Information
Annex 1	Proposal form
Annex 2	Terms of reference
Annex 3	Draft legal text