



Early competition in onshore transmission

‘What is a CATO?’

November 2022

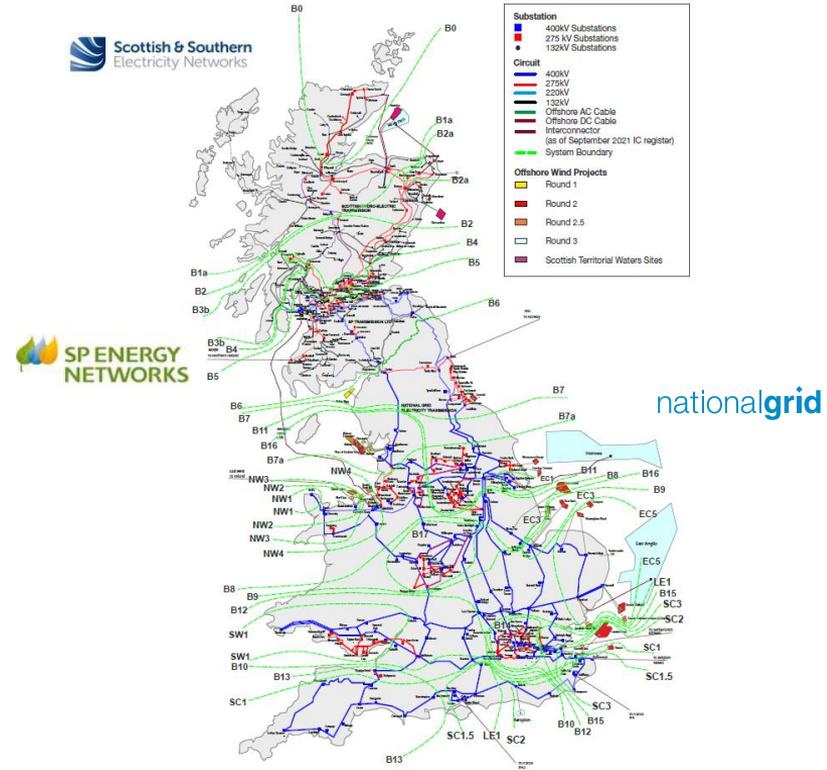
Onshore transmission

Traditionally, onshore transmission assets have been financed and delivered by incumbent Transmission Owners (TO's) – regulated companies, licensed by Ofgem covering a geographic area.

The ESO has been asked by Ofgem to implement a model for early competition in onshore transmission:

- A competitive process to select the provider of a solution to a specific need on GB's electricity transmission system
- Selecting a solution provider at the 'early' stage, before planning, consenting and detailed design (preliminary works)
- To the extent possible, creating a level playing field between alternative solutions
- The ESO will transition to become the 'Future System Operator' - entirely separate from National Grid - and will be the procurement body for the competitive process

Existing transmission network



Source: NOA Refresh 2021-22

Early competition

In April 2021 we published our Early Competition Plan:

- Setting out an end-to-end process for early competition, from need identification to decommissioning
- Based around existing competitive models, in particular OFTO and PPP (TRS, fixed construction costs etc)
- Considering how a level playing field could be created between network and non-network solutions

We are now looking at implementing early competition:

- We're now developing the detail of the commercial arrangements for a network solution, or Competitively Appointed Transmission Owner (CATO)
- As part of the network, a CATO solution will have different requirements placed on it compared to a non-network solution. The position adopted in relation to CATOs can be extended, where possible, to non-network solutions to maintain a level playing field

Commercial opportunity:

- Ofgem have previously estimated that the pipeline of potential projects that may be suitable to undergo competitive processes over the course of the RII0-2 price control period has an estimated average value of over £1bn annually
- We anticipate the first tender will be begin in early 2024 and conclude in early 2026

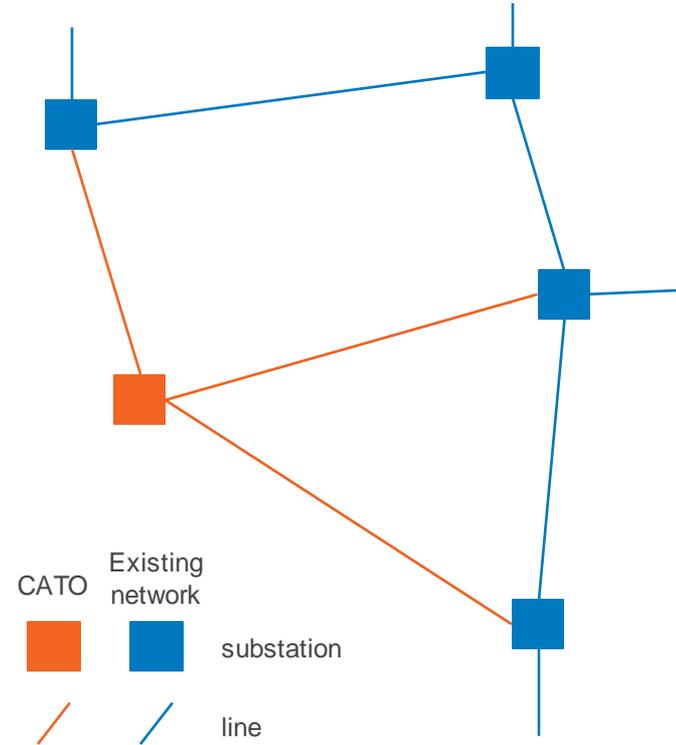
What is a CATO?

A CATO will provide transmission services to meet the network need identified and competed by the ESO. In doing so it will become part of the onshore GB electricity transmission network.

Key responsibilities include:

- plan, design, build, finance, operate and maintain transmission assets to meet the competed need
- connection to the existing network
- helping facilitate the ongoing development of the network (including user connections and wider works)
- acting on instructions from the ESO control room

Indicative transmission assets

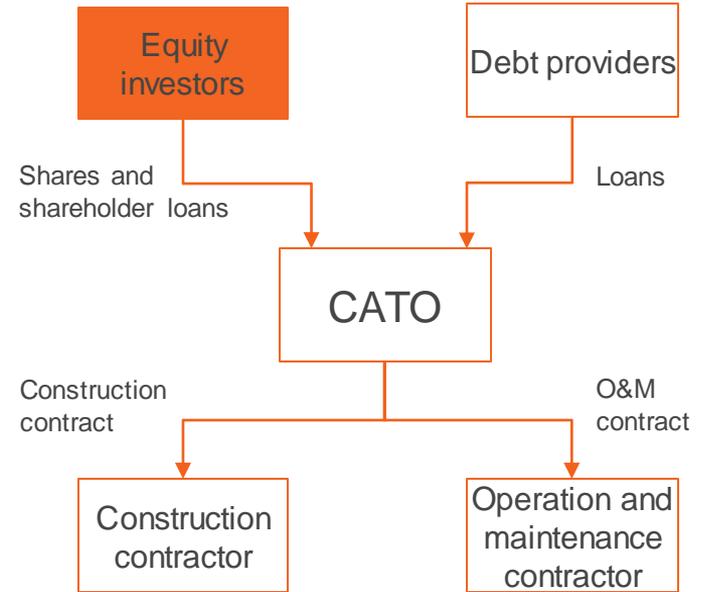


CATO structure

The CATO is likely to be a Special Purpose Vehicle (SPV), established by the Successful Bidder ahead of being awarded the project.

The SPV would:

- own all the project assets (incl. licences, and agreements);
- undertake preliminary works and secure the necessary planning and consents;
- let a fixed price construction contract, backed by licence and security;
- finance construction through a mix of equity and long-term debt; and
- ensure the asset is operated, maintained and decommissioned.



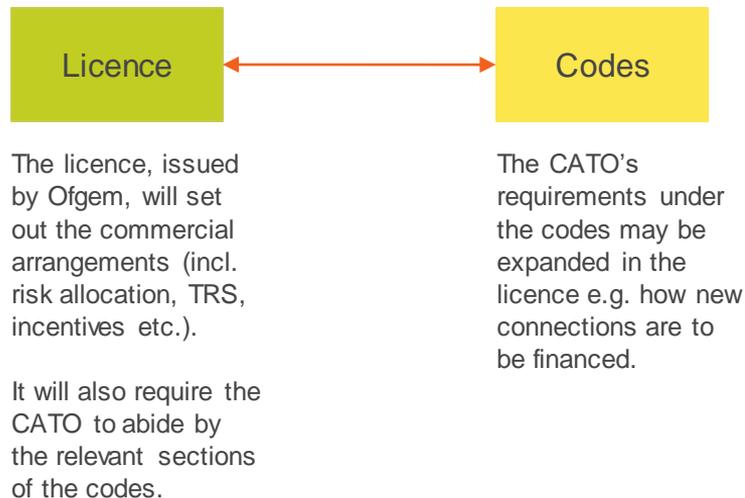
Regulatory structure

The SPV would be awarded a TO licence, which in turn would obligate it to abide by the relevant sections of the codes:

- the System Operator – Transmission Owner Code (STC); and
- the Security & Quality of Supply Standard (SQSS)

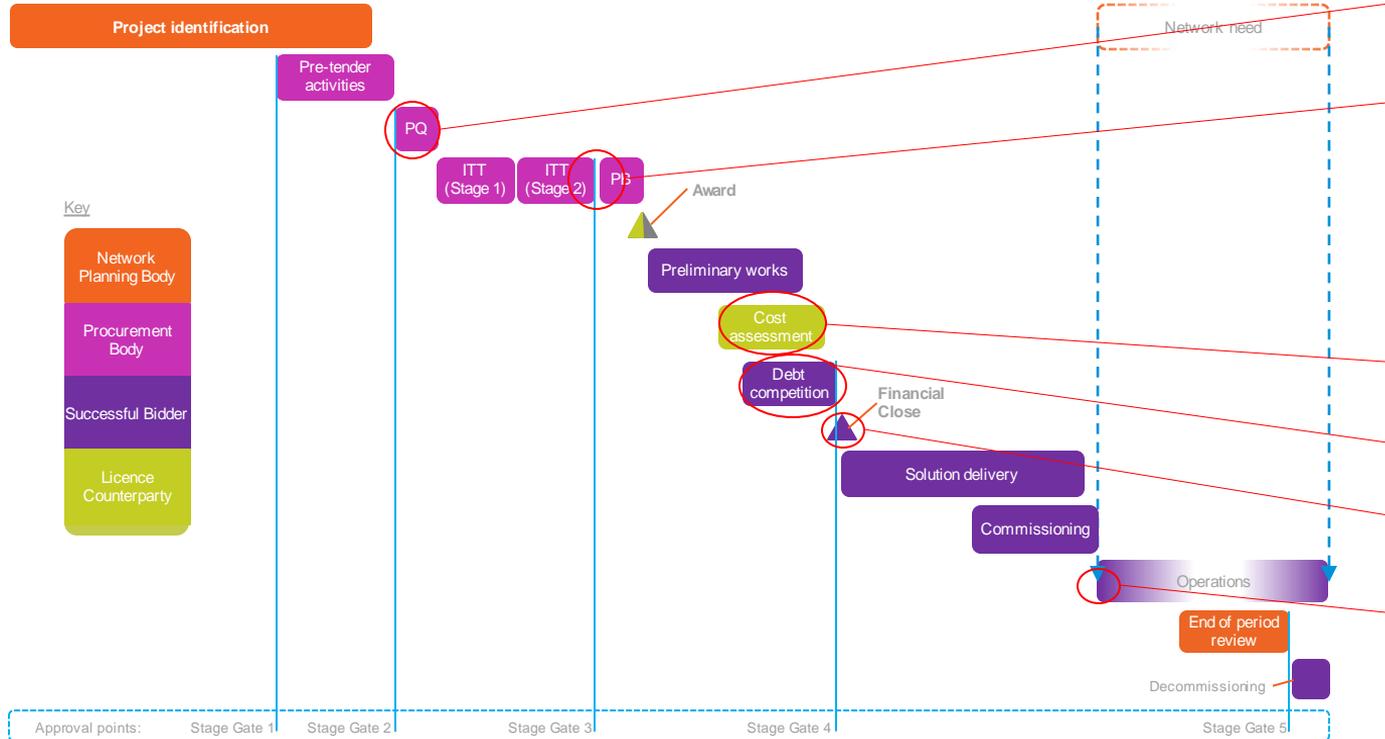
These codes are currently being updated to reflect the specific requirements that would be placed on a competitively appointed TO (referred to in the codes as CATOs). These will be broadly in line with the obligations placed on an incumbent TO, except where such obligations are inappropriate.

The length of the licence would be set in line with the length of the network need – up to a maximum duration of 45 years from planned completion, in line with the regulatory treatment of transmission assets.



The tender process

Indicative



Tender launch

Bid TRS:

- Underlying cost based on initial design
- Indicative debt termsheet
- Committed equity

Underlying costs 're-priced' (PPWCA)

Debt terms fixed

Fixed TRS

TRS begins

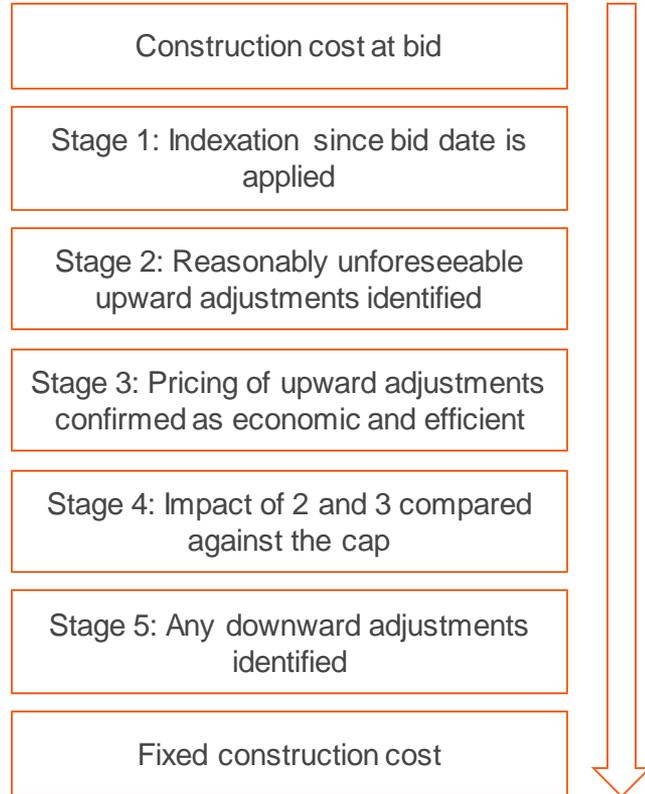
Note: Timescales are illustrative based on comparable precedents and are likely to vary between projects.

Preliminary works

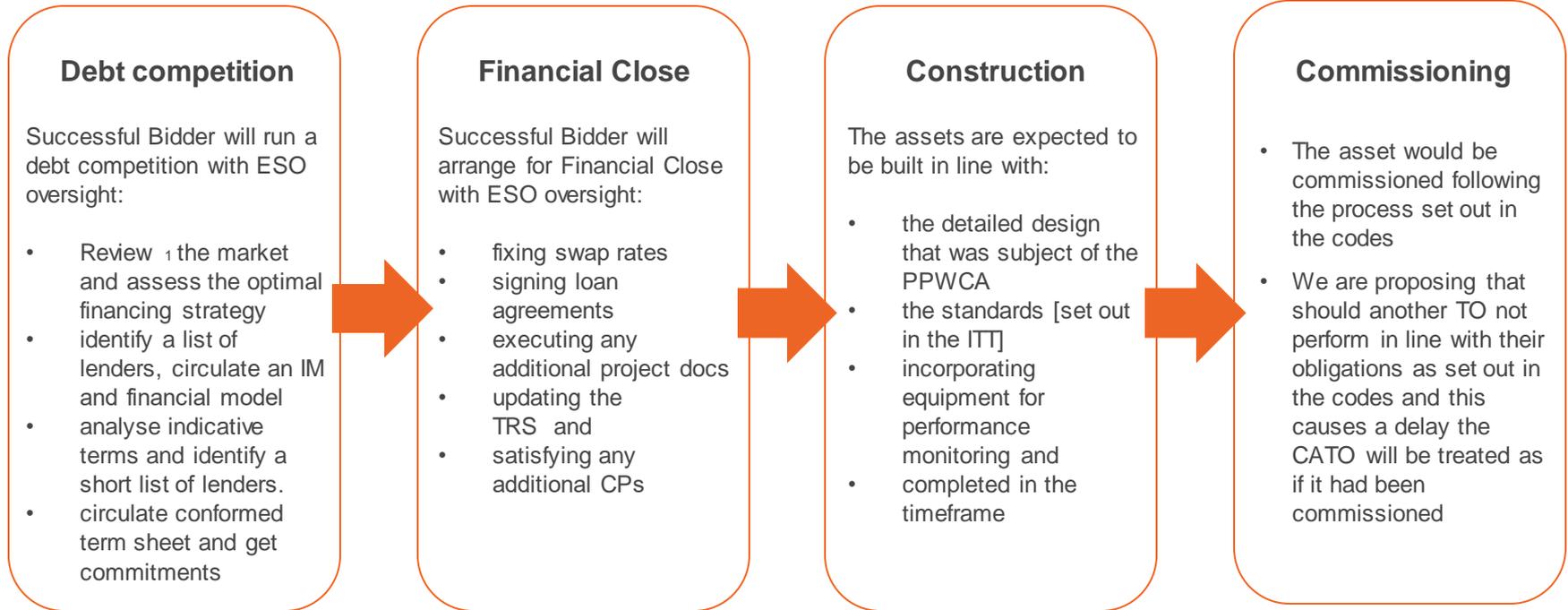
The CATO will be responsible for undertaking the preliminary works, including obtaining planning, consents, and completing detailed design. In undertaking the preliminary works, it will be required to:

- maintain security equal to [30]% of the project value in an acceptable form
- cooperate with the Independent Technical Advisor (ITA), allowing regular access to enable the ITA to prepare its reports
- cooperate with the PPWCA process, including:
 - clear justification for any claims for an upward adjustment in costs
 - evidence that any claims for upward adjustment are priced on an 'economic and efficient' basis
 - proactively identifying any potential downward adjustments in costs
- Post indexation any increase in costs is subject to a [22]% cap

PPWCA process



Key stages after preliminary works



1. Should the debt comp review identify consumer benefits from a refinancing during the revenue period, risk sharing arrangements may be considered.

Operations (availability)

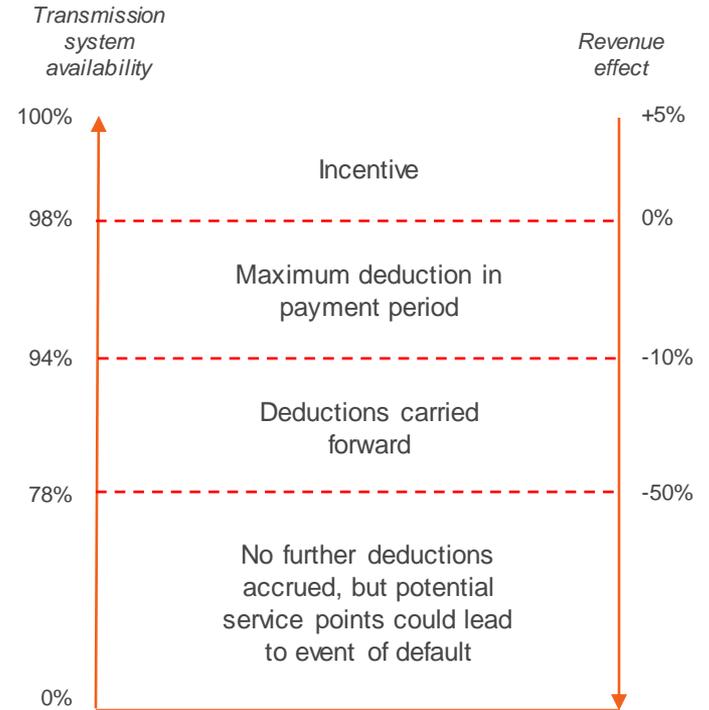
The TRS would be adjusted for the availability of the assets, similar to the mechanism used with OFTOs:

- target availability [(including all planned and unplanned maintenance)] of [98]% for 100% of TRS
- incentive payments up to [5]% of TRS for 100% availability
- deductions of up to [50]% of TRS for [78]% availability
- in any one payment period, deductions are capped at [10]%, with the balance rolled forward to following periods
- below [78]% availability, no further financial deductions but service points would continue to accrue that could lead to an event of default

Availability would be measured by:

- 1) suitable equipment, proposed by the bidder and agreed with the ESO, installed on the asset and communicating with the control room indicating whether the line is live; and
- 2) records of Service Capability Schedule (SCS) and Operational Capability Limit (OCL) submissions declaring the capability of the line

Revenue impact of availability



Operations (additional works)

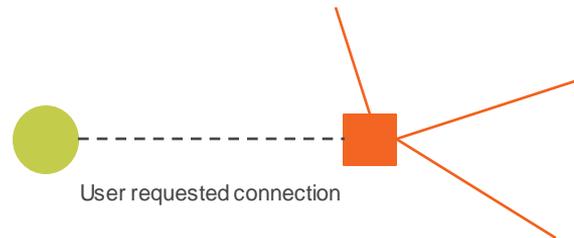
During the operations period the CATO will be obligated to support the development of the wider network.

This includes:

- provide offers to design, build and operate a user connection to users looking to connect to the CATO's network (A). If the user opts to develop its own connection, or selects a third party to undertake the work (e.g. a TO), the CATO will need to facilitate the connection at its substation; and
- upgrade their network to support development of the wider network (B). This could be in relation to a connection elsewhere on the network (affected Transmission Owner Connection Agreement (TOCO)) or changes in the network from the transmission investment plan (affiliated works)

There is ongoing work to determine how user connections to a CATO could best be funded, given CATOs are project financed SPVs with a different regulatory model to incumbent TOs.

A. Indicative user connection



B. Indicative wider works



End of revenue period

Towards the end of the initial revenue period, there would be a review of the ongoing requirement for the asset. If it no longer meets a need, the CATO will be asked to decommission the asset – the decommissioning cost covered by security the CATO is asked to post when awarded the licence.

Where the asset continues to meet a need, the ESO may:

- offer the CATO an extension, calculating the revenue during the extension on a pre-agreed basis; or
- if the CATO rejects the offered extension, then [the CATO would be required to transfer the asset (at zero value) to a third party designated by the ESO as the new asset operator]

To allow for a potential extension in the use of the asset, our initial thinking is that handback conditions would be specified. These would be based around the appropriate maintenance of the assets throughout its life, covered by existing design standards set out in the codes



Questions

We would very much welcome your response, in writing, to the following questions on early competition.

Please send your responses, either before or after our meeting to:

box.earlycompetition@comms.nationalgrid.co.uk



nationalgrideso.com

National Grid ESO, Faraday House, Warwick Technology Park,
Gallows Hill, Warwick, CV346DA

ESO