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# Capacity Methodologies Review 2019

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# Background

**The NTS Gas Transporter Licence sets obligations on National Grid to produce statements setting out the various capacity methodologies.**

ECR: Entry Capacity Release

ExCR: Exit Capacity Release

ECS: Entry Capacity Substitution

ExCS: Exit Capacity Substitution and Exit Baseline Revision

ECTT: Entry Capacity Transfer & Trade

**Each statement must be consulted on at least once every 2 years.**

**Current Statements: Effective 31<sup>st</sup> July 2017**

**Link to current Statements: <https://www.nationalgridgas.com/capacity/capacity-methodology-statements>**

**The backstop date for completion of the next consultation is 31<sup>st</sup> July 2019.**

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## Scope of Change

What changes have  
been identified

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# Change Drivers

- **UNC Modifications**

- 616s. Capacity Conversion at Interconnection Points. **Housekeeping**
- 628s. Standard Design Connections: PARCA process. (aka CLoCC) **Housekeeping**
- 621x (pending). Charging Review. **For discussion**

- **Stakeholder suggestions**

- PARCA feedback **For discussion**
- Remove NPV test for substitution **For discussion**

- **NG suggestions**

- Withholding capacity rules (daily auctions) **For discussion**
- Editorial / clarifications **Housekeeping**



# **NPV test for substitution solutions**

**Issue: stakeholders have queried whether it is appropriate to have a Net Present Value (NPV) test where funded incremental is not required and solutions can be delivered through substitution.**

**Proposal for stakeholder views:**

- The NPV test shall be removed for situations where the solution for additional capacity demand can be met solely through substitution.**
- The minimum duration rule can be maintained at 16 quarters.**

# NPV test changes related to modification proposal 621x

Reminder of current test. A 'pass' is achieved if:

*Present Value of Incremental Revenue = 50% of the Project Value*

*where the Incremental Revenue is the incremental capacity bookings x the clearing price.*

# **No more Long Run Marginal Cost (LRMC) methodology...**

**Issue: certain parameters from the current NPV test are inextricably linked to the LRMC methodology. These are the Project Value and Price Steps, both of which are generated for each increment in accordance with LRMC.**

**NG is exploring alternative options for these 2 parameters for the NPV test.**

**There is already an alternative method used for Interconnection Points, as described in the CAM and TAR codes.**

**These use an 'estimated increase in allowed revenue' instead of Project Value, and a 'Mandatory Minimum Premium' instead of Price Steps.**

## **Increase in Allowed Revenue?**

**When National Grid release funded incremental capacity, then it calculates a cost associated with delivering that capacity in accordance with an approved methodology. Those costs, if approved, will be added to National Grid's allowed revenue.**

## **Mandatory Minimum Premium? (MMP)**

**The MMP can be added to the applicable payable price if the allocation of all offered incremental capacity at the reserve price results in insufficient revenue to pass the economic test.**

**In this case then a premium can be added to the price, calculated to be the minimum value required to allow the Economic Test to be passed.**

# Replacing the Project Value

Replace the 'Project Value' with an 'estimated increase in allowed revenue'.

CWD is a cost allocation model and is not capable of generating a notional Project Value. The estimated increase in allowed revenue allows a sensible cost estimate to continue to be used in an economic test.

It would in fact likely be more cost reflective of the project costs, as it is a 'bottom up' calculation specific to the project being proposed, rather than a 'top down' theoretical value produce by a model.

The revenue driver methodology already exists, so this approach avoids the need to develop a new way of estimating costs. And it would align the test to the actual costs to industry (i.e. increase in NG allowed revenue).

- Do stakeholders agree with using an 'estimated increase in allowed revenue'
- Are there any other alternatives?

# Replacing the Incremental Step Pricing

There is a logic to using step prices produced by the LRMC model because they correlate to the Project Values. i.e. as the Project Value increased then so too does the price (a big jump in Project Value between incremental quantities also results in a big jump in price).

However the link between price steps and the project cost is now broken. Project Values do not exist, and while price steps will still be produced under the mod 621x proposals, they have no link to the cost of delivering an incremental project.

As there is no link, then continuing to use price steps creates the risk of inappropriate prices being used.

Therefore, under the CWD model, replacing the price steps with a variable premium – similar to the CAM approach – appears to be more appropriate.

- Do stakeholders agree with using a variable premium for incremental pricing under CWD?
- Are there any other alternatives?



# NPV test – compare current vs EU Codes approach

## Generic Description of Economic Test.

*User Revenue / cost of project >= sharing factor*

Generic parameter	Current Approach	EU Codes Approach
User Revenue	NPV of incremental qty x (reserve + premium)	NPV of (incremental qty x (reserve + premium)) + (unsold qty x premium)
Payable Price	LRMC reserve price + LRMC price step	CWD Reserve price + project specific premium
Project Cost	LRMC derived Project Value	Estimated increase in allowed revenue
Sharing factor	50%	Default 50%, with option for Ofgem to direct alternative figure.

NG current favoured approach highlighted in green

## further considerations

- **Replacing Project Value with estimated increase in allowed revenue, will mean that substitution solutions are automatically passed.**
- This means QSEC would not need an NPV test applied, and there will be no inconsistency between substitution tests for PARCA or QSEC.
- **The mechanical Price Steps proposed under 621x would continue to apply to QSEC to allow price competition.**
- **Should the whole EU test simply be replicated?**
- Probably not, due to transparency around 50% rule, and see duration question below.
- **What should the minimum duration be for the capacity commitment?**

# Further considerations – duration question

## Options for a duration rule:

- **No duration. Test will be purely financial.**
- **8 quarters. This is initially proposed under South Hook Gas urgent mod, which also seeks to introduce the concept of a premium.**
- **16 quarters. A 16 quarter duration rule already exists in relation to reserving existing capacity (inc. substitution) under a PARCA. This is also equivalent to the 4 year rule on Exit.**
- **25 quarters. Some scenario testing of the current NPV model indicates that a ‘normal’ or ‘average’ duration could be expected to be 25 quarters. ‘Normal’ being e.g. bidding for the P12 increment at the P12 price.**
- **60 quarters. The TAR code allows a premium to be applied when all offered quarters have been bought in case that still generates insufficient revenue to pass.**

# PARCA Window & Ad-hoc applications

**Background:** Following receipt of an Exit PARCA then National Grid opens a 'PARCA Window' & invites other users to submit applications. However, if NG receives any (ad-hoc) applications in an Exit PARCA Window, it can not do anything with those until after the PARCA has finished.

## Simple PARCA phase 1 timeline



## Proposal for feedback:

- Ad-hoc applications received within an Exit PARCA Window shall be allocated, provided they can be satisfied from unsold baseline.

# Withholding Capacity in Daily Auctions

**NG withholds capacity in daily auctions in the event that a constraint is occurring or predicted. We believe this is an efficient way to manage the network. This approach is currently described in ECR but not the ExCR. NG would like to consult on including the rule in ExCR to make the 2 documents consistent. Current ECR text below, changes for Exit identified in blue:**

*Where, in respect of any given Gas Flow Day, circumstances arise in which National Grid foresees a capacity constraint occurring at an **NTS Exit Point**, National Grid may withhold capacity from sale for that **NTS Exit Point** in the **Daily auctions**. The quantity withheld will be limited to that which National Grid considers necessary to avoid the constraint or to avoid increasing the extent of the constraint, and hence to avoid or limit, the cost of any actions needed to manage the constraint.*

# Summary of changes per Capacity Statement

Statement	Changes
Entry Capacity Release (ECR)	Capacity Conversion; CLOCC; remove clearing obligation*; NPV test & substitution; NPV test & 621x.
Exit Capacity Release (ExCR)	Capacity Conversion; CLOCC; remove clearing obligation*; PARCA window; withholding daily capacity.
Entry Capacity Substitution (ECS)	None planned.
Exit Capacity Substitution & Baseline Revision (ExCS)	None planned.
Trade and Transfer	None planned.

\*depending upon Licence discussions for 621x modifications

Due to the review of fundamental parts of capacity release, then NG preference is to limit focus (other than housekeeping) to Capacity Release.



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## Timeline

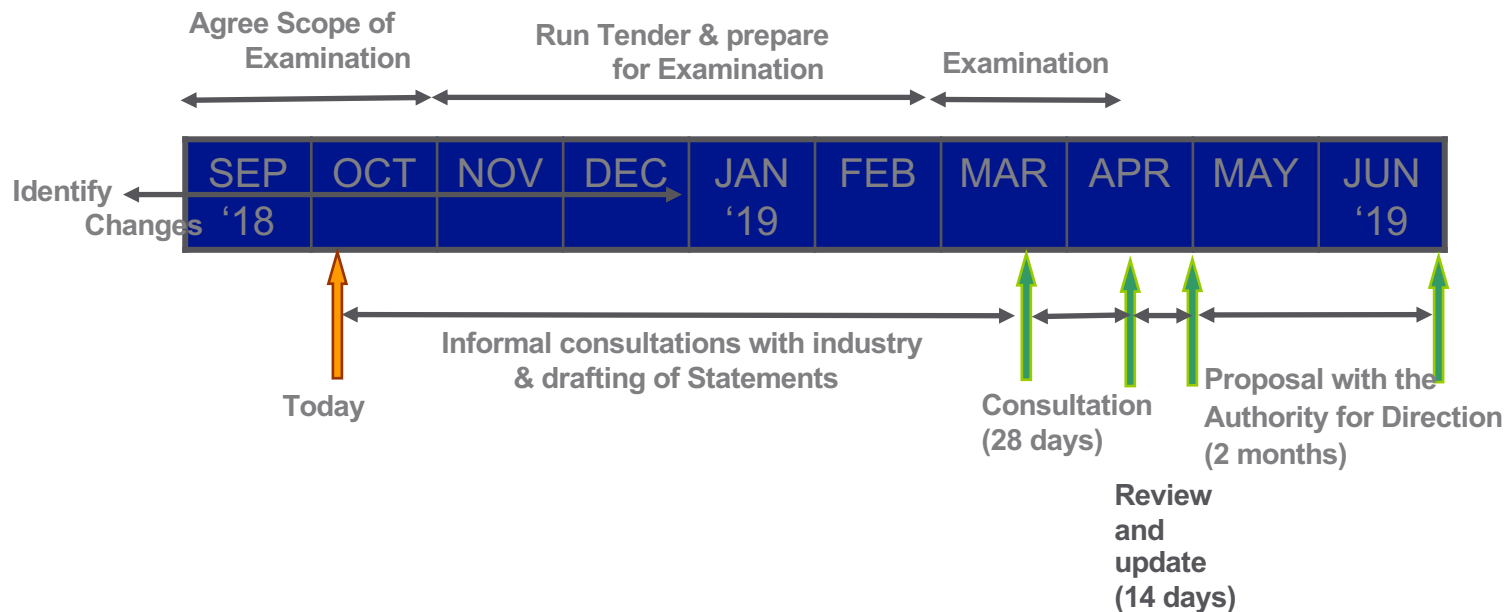
When are the key  
milestones

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# Timetable 2018/2019

Consultation on the capacity methodology statements will follow the proposed timetable outlined below (specific dates TBD)



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