0705R NTS Capacity Access Review

0705R Workgroup
10th March 2021

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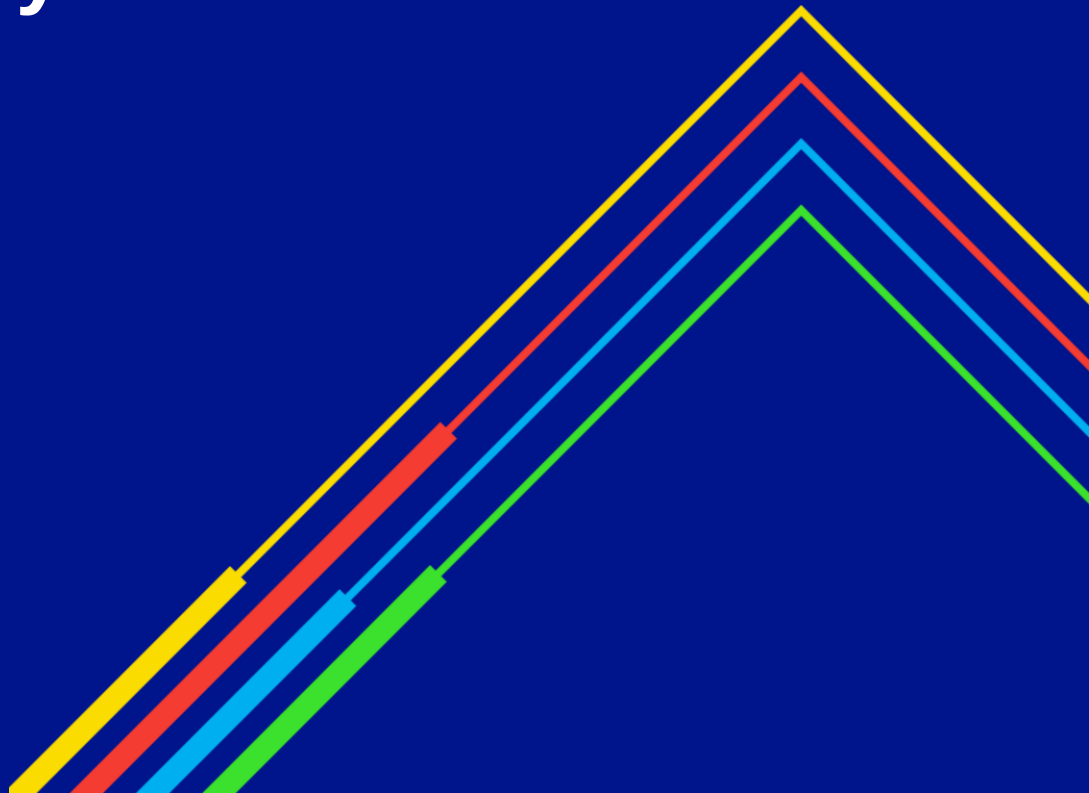

02

Review of Exit Regime

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Exit Capacity Planning Guidance

TBD

03

DN Connected Generation purchasing NTS capacity

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Issue

All parties connected to the Distribution Networks are charged for accessing the network, based on their supply offtake quantity (SOQ). The SOQ is assumed to be the quantity offtake 365 days of the year; thereby meaning parties pay for that quantity every day of the year. Power Generation are flexible in their operation, requiring intermittent access to offtake from the Distribution Network. This results in;

1. Flexible power generators being subject to higher network access costs their competitors who are connected to the NTS and therefore can purchase capacity on a more flexible basis.

2. Forecasting flexible power generators load can be difficult for GDN's due to their intermittency; power generation sites also included in 1 in 20 volumes

3. Sterilises capacity known not to be used (although provides availability)

Scope

- Applicable for electricity generation only or include other a-typical loads?
  - CNG (0749R Workgroup); testing facilities
- Limited to Daily Metered sites or all categories?
- Include NDM Loads on sensitive part of the network?
- Include loads connected to GDNs and IGT's
- Voluntary or Mandatory?

Are there any other parameters to the scope that we need to consider?

04

GMaP 2030 Access

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Outline

Project Aim: to develop a roadmap / an outline of change to the current capacity access arrangements to ensure that rules and associated cost apportionment is appropriate to the scenario forecasted by 2030 and in the intervening period

Scenario: physical and behavioural changes expected by 2030 and the resulting consequences to Users and National Grid.

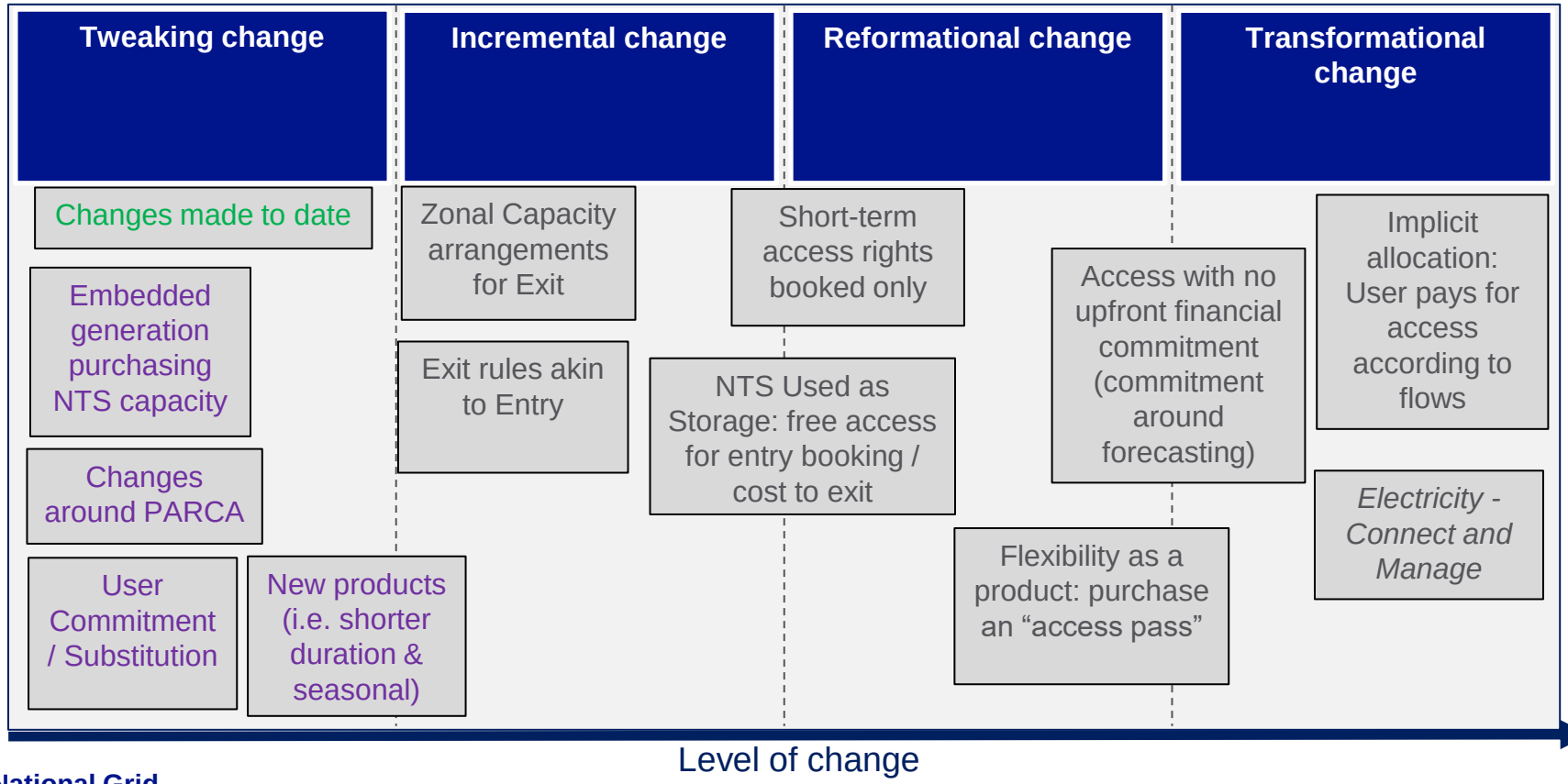
Options: development of options, at varying levels of change, for future rules around accessing and using the NTS according to the scenario identified.

Triggers: identification of a series of triggers that would identify which level of change is required and when is the right time

2030 Scenario

	Physical	Behavioural
Gas Demand Levels	• Decline in overall gas demand *(149TWh to 327TWh reduction in annual gas demand by 2030)* • Peak demand remaining stable or increasing • "Peak" at different time of the day • Greater demand overnight • Greater volatility in gas demand	• Different use of the gas network (times of day - overnight) • More rapid / real time commercial access to the NTS
Gas Supply	• UKCS gas supply halves by 2030 • Import dependency increases from 58% to 74%	• Reliance on imported sources of gas which have different market dynamics (e.g. ensuring UK is attractive to LNG)
Whole System Interaction	• Significant decrease in CCGT running hours due to switch from baseload to flexibility provision • Increased distribution connected peaking plant generation • Change of electricity generation patters due to electricity tariffs (overnight demand higher)	• Greater interaction with the electricity market • Volatility of renewable sources of electricity creating less foresight of access requirements • Gas providing security of supply for electricity system
Hydrogen Blend	• Up to 9TWh of hydrogen production by 2030 • NTS repurposed (gas transporters as hydrogen transporters or hydrogen RAV with impact on baselines) • Hydrogen blended off-grid before (re)-injection (at distribution level)	• NTS repurposed have an impact on network capability, resulting in more limited network access • DN networks becoming more "contained" (i.e. less interaction with NTS)
Access Rights	• Increased costs of securing access rights	• Secured in the shorter-term • Less forecasts of access requirements • Bookings and usage more closely aligned

Options


Tweaking change
Incremental change
Reformational change
Transformational change
Changes made to date
Embedded generation purchasing NTS capacity
Changes around PARCA
User Commitment / Substitution
New products (i.e. shorter duration & seasonal)
Zonal Capacity arrangements for Exit
Exit rules akin to Entry
Short-term access rights booked only
NTS Used as Storage: free access for entry booking / cost to exit
Access with no upfront financial commitment (commitment around forecasting)
Flexibility as a product: purchase an "access pass"
Implicit allocation: User pays for access according to flows
Electricity - Connect and Manage
Level of change

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