



Long Term Access Review: Project Consultation Report

September 2021

nationalgrid

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1. Introduction

This document has been written by National Grid NTS, in its role as owner and operator of the Gas National Transmission System (NTS) in Great Britain. The primary purpose of this document is to provide the next step in the development of a 2030 access regime by defining a 2030 scenario of anticipated potential physical and behavioural changes, developing options for a future NTS access regime and seeking industry views on the scenario and options.

The focus of this document is on NTS access arrangements, limited to aspects that have traditionally been referred to as “capacity”. Capacity refers to the way in which access rights to the network are reserved and purchased through a product. That market arrangement may not be deemed the most appropriate in the future and therefore the term “capacity” is removed from future options to not presuppose a solution and to allow more “blue-sky” thinking. Although the scope of this work does not include contractual or operational access to the network and seeks to maintain the Entry and Exit distinction, it is recognised that changes made to the User commercial arrangements may have consequential impacts on those arrangements.

This consultation builds on the previous consultation, published in January 2020, and has been discussed as part of the Gas Markets Plan (GMAP)¹ workshops. It firstly defines a scenario by looking at the anticipated physical characteristics of the NTS by 2030 and what that might mean for User’s behavioural changes. It then uses the ambition statement agreed as part of the January 2020 consultation as a benchmark to develop options and the functions agreed to assess those options against.

In the January 2020 consultation, a number of short-term issues were identified which have been and are currently being addressed as part of Request Proposal 0705R “NTS Capacity Access Review”² at UNC Transmission Workgroup. That work has produced piecemeal, incremental change whereas this consultation aims to develop more long term, transformational, wholesale change.

¹ [Future of Gas - GMAP](#)

² [UNC Modification 0705R](#)

2. An Evolving Access Regime for 2030 and Beyond

Shortly after launching UNC0705R “NTS Capacity Access Review” we published an industry consultation in Q1 2020 to agree the ambition, define the required functions of a future access regime and identify short-term issues. As a result, the following ambition statement was agreed;

“The future capacity access regime will be compliant with any relevant obligations. It will be flexible to changing market conditions, regimes, requirements and physical network developments. It will be simple and will enable new entrants to access the market easily and efficiently. It will not unfairly discriminate. It will provide cost effective products which drive consumer value. It will be dynamic and adaptable to accommodate new technologies and sources of gas to the NTS as progression is made to meet decarbonisation targets.”

The current entry and exit capacity arrangements³ were developed for an expanding gas transmission network, where long-term auctions would trigger investment on the NTS. In recent years, the lack of participation in long-term auctions has meant that capacity signals requiring expansion of the network are only being received via the infrequently-used PARCA process. We are also seeing Users requiring more flexible access to the NTS, closely aligning their capacity bookings to their flows, meaning capacity is more frequently being booked in the short-term. The changing use of the NTS is expected to continue as new supplies of gas are developed and introduced.

To date, through the UNC 0705R “NTS Capacity Access Review”, adaptations have been made to the current capacity access regime to better meet Users requirements and facilitate movement towards achieving the ambition statement (see Appendix A for more details on the changes made through UNC 0705R). However, these developments have been piecemeal quick fixes to current short-term problems.

To achieve the ambition statement, a more holistic review of NTS access arrangements is required. At this stage there is uncertainty around future developments (for example the volumes, technology and market arrangements for the introduction of hydrogen), however we can ensure that both the development of options and the ultimate solution is adaptable to changing requirements. Within this document, there are a series of potential options identified and assessed against the functions, identified in the first consultation, to test their effectiveness in meeting the future requirements.

³ [Gas Transmission Capacity Guidelines](#)

3. Development of the 2030 Access Regime

a. Overview

Over recent months we have been engaging with industry through the Gas Markets Plan (GMAP) Balancing and Capacity working group as we develop understanding of what might be required from a 2030 Access Regime. This working group met regularly between October 2020 and March 2021 and included shippers, distribution networks, trade association, and consultants. At those workgroups we tested the idea that the approach to defining a 2030 Access Regime will consist of 3 steps;

- Defining a 2030 scenario
- Development of solution options
- Identification of early indicators

Developing a 2030 scenario, which covers both potential physical and behavioural changes, along with the ambition statement, provides a clearly defined vision of the future based on what we understand today. Based on the scenario we have developed a series of options for the future access arrangements which aim to produce a regime which delivers on the ambition statement. The focus of this consultation is to test the 2030 scenario and seek feedback on the options identified.

Following this consultation, we hope to be able to identify a preferred pathway to develop an NTS access regime which is consistent with the scenario and achieves the ambition statement. The pathway identified could be a series of options developed consecutively or a wholesale change. As part of the future development, early indicators will be identified to indicate what needs to happen and when. Due to the lead time required to implement any change to the commercial arrangements, particularly a more substantive change, identifying and recognising early indicators will signal when is the right time to move from development of options to their delivery.

b. 2030 Scenario Definition

Within the GMaP workgroups we developed a 2030 scenario. This includes both physical developments, based on the Future Energy Scenarios (FES) 2021, and assumptions on resulting User behavioural changes that might be seen in 2030.

	Physical	Behavioural
Gas Demand Levels	<ul style="list-style-type: none"> Decline in overall gas demand (102TWh to 346TWh reduction in annual gas demand by 2030) “Peak” at different time of the day Greater demand overnight Greater volatility in gas demand 	<ul style="list-style-type: none"> Different use of the gas network (times of day – overnight) More responsive booking of commercial access rights to the NTS
Gas Supply	<ul style="list-style-type: none"> UKCS gas supply drops by 29-56% by 2030 Import dependency increases from 57% to between 63% and 73% 	<ul style="list-style-type: none"> Reliance on imported sources of gas which have different market dynamics (e.g. ensuring the UK is attractive to LNG)
Whole System Interaction	<ul style="list-style-type: none"> Significant decrease in CCGT running hours due to switch from baseload to flexibility provision Increased distribution connected peaking plant generation Change of electricity generation patterns due to electricity tariffs (overnight demand higher) 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Up to 13TWh 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) 	<ul style="list-style-type: none"> NTS repurposed for Hydrogen has an impact on network capability, resulting in more limited network access for Natural Gas DN networks becoming more “contained” (i.e. less interaction with NTS)
Access Rights	<ul style="list-style-type: none"> Increased costs of securing access rights 	<ul style="list-style-type: none"> Secured in the shorter-term Less forecasts of access requirements Bookings and usage more closely aligned

Figure 1. 2030 Scenario

By 2030 the development of the gas market is likely to have evolved further from where it is today, a number of these potential developments are discussed below:

Changes to Charging Regime – The new charging regime came into effect on 01 October 2020 and is in line with UNC Modification 0678A⁴ which uses a Postage Stamp reference price methodology. All capacity has a non-zero capacity reserve price, a higher proportion of revenue would be expected to be recovered by National Grid NTS through capacity charges than in the previous regime. At the moment the new charging regime is in its infancy and there is still some uncertainty on exactly how

⁴ [UNC Modification 678 and alternatives](#)

it could impact capacity booking behaviors, but we know from customers that they value the opportunity to book as close to the flow as possible in most situations. The changes in capacity booking behaviours as a result of the charging reforms will need to be considered when investigating any future access developments.

Decarbonisation – There is an increasing body of evidence⁵ that supports the potential for hydrogen to play a key role in the decarbonisation of the UK economy to support achieving our net zero target. Along with other future technologies and green gases, this will have a huge impact on the way in which the NTS is used and managed. These changes will need to be factored in as they are developed, to ensure fair and easy access to all Users including new technologies.

UNC 0705R (NTS Capacity Access Review) topics – Several topics have been discussed in the UNC 0705R workgroups, some of which have led to Modification proposals being raised and progressed. Implementation of these Modifications could change the behaviours of Users and have an influence on any changes the industry would want to make in the future.

Network Capability – Over the course of RIIO-2 and RIIO-3 it is proposed that our operational compression units will reduce in number, largely due to the Medium Combustion Plant Directive emissions legislation. Although this reduction will maintain the capability of the network, it will remove some of the system’s resilience back-up units and hence reduce the frequency at which network capability levels can be achieved. If there are any changes to the behaviours of Users as a result of this they would need to be considered as part of any further developments of the commercial access regime. More information on Network Capability can be found in our Annual Network Capability Assessment Report.⁶

⁵ One example of this is the [BEIS Hydrogen Strategy](#)

⁶ [Annual Network Capability Assessment Report](#)

c. Solution Options Discussed

During our engagement a number of potential solution options were identified. These are referred to as option(s) from this point on. The range of options presented within this document, which are still in the early stages of development, cover the full spectrum, and therefore move away from the regime of today by differing degrees, with some providing wholesale transformational changes and others smaller and more incremental changes. National Grid NTS are presenting all the options discussed with industry to date, but there is no current preference in the options presented as they all need to go through more development to assess if they are viable options to progress as they stand within this document.

The options will need to be assessed based on the regime at the time and any changes that have taken place. Figure 2 shows for each of the options considered to date, the degree of change away from the regime of today. Those options in grey are options that have been discussed previously but discounted at this stage. There are certain features of the regime of today such as, charging, constraint management, network planning, the release of incremental capacity (through PARCA and substitution) and non-obligated capacity that could present issues to many of the options outlined within the document. Although we acknowledge that these features are aspects that will need to be addressed and solved during later development, in this document we have attempted only to provide a high level overview of each of the options, with some of the key points of consideration for each.

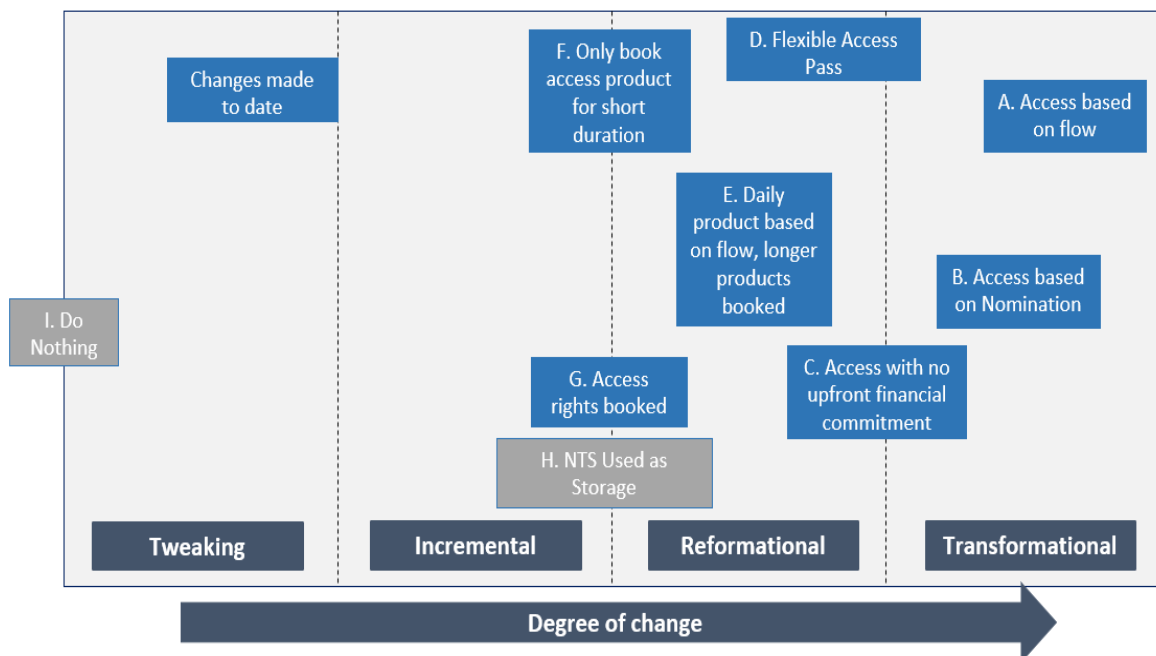


Figure 2. Degrees of change of options

Delivering any of these options would need to be planned and managed carefully to ensure that the transition between the regimes is as seamless as possible. Lead time on the implementation of a

change depending on how transformational the change is, could be long. Therefore, it would be valuable to identify early indicators to understand what needs to happen and when, so that changes are further developed at the appropriate time.

The options that provide less transformational change could be used as stepping stones towards more transformational options in the future. It is also worth noting that while each option has been considered as a standalone option, there may also be the opportunity to combine or enhance certain options to achieve the optimal outcome. An example of how several options may link is given in Figure 3.

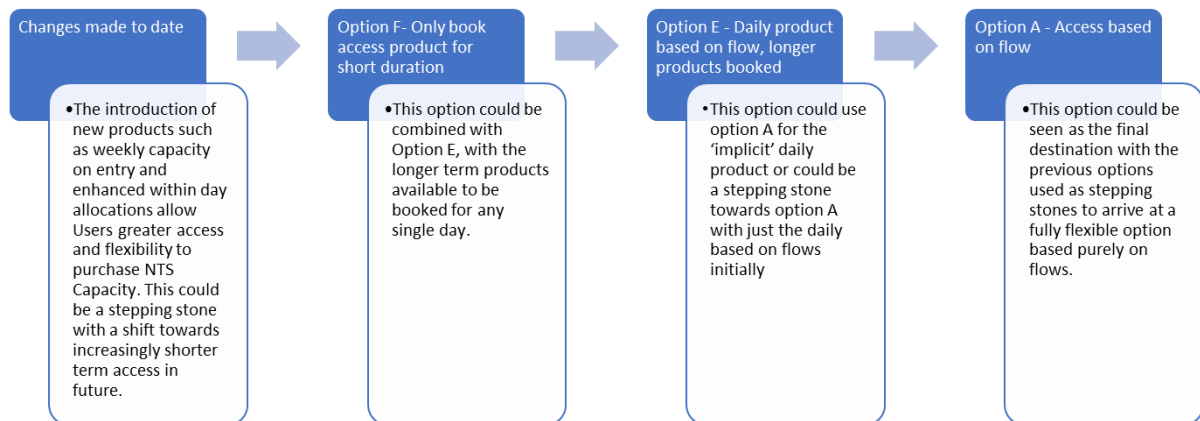


Figure 3. An example of the interactions between different options

More detail on each of the options discussed and how they interact with each other is available in Appendix C.

For the avoidance of doubt, when examining the options outlined within the document, short or long term relates to the when the product is booked, whereas short or long duration relates to the length of time that that product is booked for. For example if a User booked an access right for one day, a year in advance, that would be classified as a long term product, but with a short duration.

Option A - Access Based on Flow

In this option no upfront access bookings or nominations are required, Users are charged for use of the network based on their flows, effectively being allocated access rights implicitly. This option would allow Users flexibility to flow on the NTS without having to book access in advance, but could create some difficulties in terms of network planning and constraint management that would need to be worked through.

This is one of two 'implicit' options considered (the other being option B) presenting the most transformational change. We consider that Option E, with a daily product based on flows could be used as a stepping stone towards this more transformational change if required.

As this option describes transformational change, there are a number of mechanisms that are used today that would no longer be appropriate if this option was progressed. New mechanisms would need to be devised in particular to manage long term network planning, access for new users, and

short term constraints (replacing the buy-back product in use today). Additionally, a new method would be required for GDNs to demonstrate they meet their 1 in 20 obligations.

If these issues could be overcome, this option provides a completely flexible system where users are charged based on their flow. This could be of particular benefit in a 2030 scenario with increased interaction with the electricity market.

Option B – Access Based on Nomination

This is the second of two “implicit” options considered. In this option Users are not able to just flow with complete flexibility but instead nominations are used as up-front access bookings, with capacity allocation based on nominations provided.

Users would have the option to flow on the system with different access rights on different days, thus increasing flexibility. Nominations could be provided at similar timescales as today, anywhere from 30 days out, and may be increased or decreased to match flows closer to the day. However, Users may have to be charged based on their maximum nomination to prevent any intentional over nomination which could then impact to ability of other Users to gain access.

Similar to Option A, there are a number of today’s mechanisms that would not work as they do today and new ways of managing long term network planning, access for new users and constraints would be required. There is the option that a rejection of the nomination could be used to manage short term constraints.

Option C – Access with no Financial Commitment

This option allows Users to book network access without any financial commitment. Transporter Maximum Allowed Revenue would instead be collected through commodity charges. This option aims to retain the long term signals provided by Users through capacity bookings but still provides Users with greater flexibility to manage their flows. Users could book the access they need without any charges if they later decide not to flow against it.

There is a risk with this option that arises from the possibility of bookings not being accurate with Users unintentionally or intentionally booking more access than required. This could then impact other users who may wish to book access at the same point. A mechanism to incentivise accurate booking to discourage this behaviour, and to more accurately signal long term capacity requirement may be needed, but any financial incentive in place could undermine the ethos of a regime based on capacity bookings with no financial commitment.

If incentives were put in place to encourage accurate bookings, the regime would become instead more focused on information provision with the cheapest rate available to Users with bookings aligned most closely to their flows. This sort of regime may therefore suit some types of Users with steady loads more so than others with more varying loads.

Option D – Flexible Access Pass

This option allows users to buy access and use it flexibly at any time over a given time period such as one gas year. For example, a User could purchase 100 units and use 1 unit per day over the next 100 days or alternatively could flow all 100 units in a single day. There are a number of variants with this option and it could be either point constrained, geographically constrained, entry/exit constrained or unconstrained, for use anywhere on the system.

The Flexible Access Pass could be used as a standalone option or combined with another option and essentially act as an additional flexible product that Users can buy. As a standalone option, mechanisms would need to be put in place to ensure that gas flowing on any given day does not exceed capability, causing system and constraint management issues. As an additional product, a limited amount could be sold to help mitigate this risk and there is also the potential to sell the product as an interruptible product for this reason.

Option E – Daily Product Based on Flow, Longer Product Booked

This option is a based on short term access linked to flows with longer term products based on access rights. The daily product would be charged based on the flow on the system, but all other products are based on booking access requirements. In addition to the increased flexibility provided by Users being able to flow flexibly on the day, this option also opens up the timeframes for the non-daily products allowing Users to book different products in different timeframes further increasing flexibility.

The daily product within this option could be styled on, but is not limited to, either of the “implicit” options set out in options A and B. It could also be used as a stepping stone towards these options as it provides the same flexibility on the daily element but also retains long term capacity bookings, which simplifies some of the complexities highlighted within those options. For example, long term capacity booking would still be available for new sites to secure access and a new mechanism would not be required. This option does not solve all the issues however, for example a new mechanism will still be needed to help manage constraints.

If long term access was not booked, this option could essentially become one of the two “implicit” options as all charges would be based on flows. Long term bookings could be incentivised by either making them fixed price or discounted in relation to the daily products.

Option F – Only Book Access Product for Short Duration

In this option there are no long term auctions, access to the network is only available as a product for a short duration but can be booked in advance of when needed. For example, Users could book for one day or a number of days, a year in advance, removing the limitations of the products and auctions that we have today. This option provides flexibility to Users as they can book exactly what they want, when they want.

Depending on the rules created to signal incremental capacity with this option, a potential problem is that a User could book one day of capacity far in advance which could then potentially prevent another user or a new entrant booking capacity for a more prolonged period including that day. In order to mitigate this the product could be available for a shorter advance period (e.g. 2 years). Additionally, Users could be able to increase but not decrease their bookings up to within day.

Option G – Access Rights Booked

In this option short term and long term bookings are still available but bookings can be made in different timescales and for different durations further in advance. For example, daily products could be booked a year in advance. With the removal of the auctions as we know them today, bookings would be made instead on a first come first served basis.

This option could provide Users with increased flexibility of access requirements in advance, while retaining the ability to use capacity bookings as long term signals, to manage constraints and provide certainty of access.

Option H – NTS Used as Storage

In this option the NTS is essentially used as a storage facility as market participants react to price divergences with mainland Europe. Users would be charged for any gas that enters or exits the network, but it can move around freely within it, depending on where it is needed.

This option relies on a very large reduction in domestic demand and subsequently, the primary use of the NTS evolving to facilitate exports to Europe. Although domestic demand is expected to fall by between 11% and 39% by 2030 (FES 2021), even in the fastest change case scenario, it is unlikely that the NTS would be used primarily as a storage vessel in 2030, as there would still be a significant amount of domestic demand. This option therefore, has not been considered any further as part of 2030 access. However, given that annual domestic demand could fall to as low as 19TWh by 2050, it could be an option that is considered beyond 2030 moving towards 2050.

Option I – Do nothing

The capacity regime of today was developed for an expanding gas transmission network, where long term auctions would trigger investment on the NTS. Our engagement so far has demonstrated an appetite for change from Users. Users have indicated that they require charges which are more closely aligned to the use of the network and this is expected to continue to be the case out to 2030 and beyond. For this reason, this option has been discounted at this stage.

4. Consultation Questions

National Grid NTS would welcome responses to the following questions, with any appropriate details:

1. What further developments do you see happening within the energy regime (either specific to your sector or more broadly) by 2030 which could have any influence on the 2030 scenario?
 - 1a. What would be an early indicator of these developments taking place?
2. What option/combination of options (outlined in Section 3c, and further detailed in Appendix C of this document) do you believe best achieve the 2030 scenario and why?
 - 2a. Do you have any preference on an option(s) to develop further?
3. When should further development and implementation of the preferred option take place?
 - 3a. Do you have a view on the prioritisation of the development of the options?
 - 3b. Do you have a preference towards whole scale or a more incremental approach to change?
4. Are there any other options which should be considered? Please provide any details of how you would see the options working at a high level.
5. Do you have any other comments?

The closing date for submission of your consultation responses is 30 November 2021. Your response should be e-mailed to: box.gsoconsultations@nationalgrid.com.

We welcome any responses ahead of the closing date of 30 November 2021 and will publish a summary of the non-confidential responses once the closing date has passed. If you wish your response to be treated as confidential then please mark it clearly to that effect.

5. Next Steps

Following this consultation, a summary of responses will be published by National Grid NTS in which we will outline the responses received, highlight what we plan to do as a result and agree next steps. The information gathered as part of this consultation will then be used to feed into further discussions on the future development of the access regime including preferred options and timescales for change. Additionally, given there is still a level of uncertainty around future developments, the information collected will feed future discussions around early indicators that we may see in the coming years to indicate the direction of travel of the UK gas market. Thus, ensuring that full consideration of changing requirements can be given when developing an optimal solution.

Appendix A: Work completed to date through UNC 0705R “NTS Capacity Access Review”

In October 2019 we raised UNC 0705R “NTS Capacity Access Review”⁷ which has been facilitated through the Joint Office. UNC 0705R has been focussing on resolving the short-term issues with the capacity access regime whilst in line with the overall long-term ambition. Numerous workstreams were established

Signalling and Allocation of capacity:

The following changes, developed through this workstream, were implemented in July 2021 through the review of the Capacity Methodology Statements⁸:

- The reduction in User commitment for Exit capacity within baseline from 4 years to 2 years.
- The reduction of User commitment for Entry incremental capacity from 16 to 4 quarters of the capacity application amount, with those 4 quarters being the incremental amount (maintaining the NPV test requirements for funded incremental capacity).
- The prioritisation of capacity at disconnected sites in our substitution analysis.

The next steps for this workstream include examining the possibility of a reduction to User Commitment for exit incremental capacity, particularly that fulfilled by substitution and the development of a concept whereby booked exit capacity can be moved between exit points.

Capacity Products and Auctions:

Within the topic of Capacity Products and Auctions, two modifications have been developed which enable Users greater access and flexibility to purchase NTS capacity. UNC Modification 0759S⁹ “Enhancements to NTS Within-day Firm Entry and Exit Capacity Allocations” which was raised by National Grid NTS, amended the schedule of allocations for NTS Entry and Exit within-day Firm Capacity in the following ways:

- Introduction of hourly allocations for NTS Exit Capacity.
- Allowing additional NTS Entry and Exit Capacity allocation at 02:00.
- Extending the NTS Entry and Exit Capacity bid invitation windows up until the time of the last allocation.
- Introducing a 30-minute Capacity Allocation Period for NTS Exit Capacity.

Additionally, UNC Modification 0752S¹⁰ “Introduction of Weekly Entry Capacity Auction” was raised by South Hook Gas to allow for more economic and efficient capacity bookings. Both of these Modification have been approved by UNC Panel and will be implemented as part of a combined Gemini release in Spring 2022

⁷ [UNC Modification 0705R](#)

⁸ [Capacity Methodology Statements](#)

⁹ [UNC Modification 0759S](#)

¹⁰ [UNC Modification 0752S](#)

Secondary Capacity Assignments:

Through this work stream we have developed and raised UNC Modification 0755¹¹ “Enhancement of Exit Capacity Assignments” to enable Users to transfer exit capacity and the associated liabilities in full or in part at an Exit point. This UNC Modification was approved in July 2021 with expected implementation in Spring 2022. Recently, UNC Modification 0779¹² “Introduction of Entry Capacity Assignments” was raised to introduce this capability for Entry capacity.

Review of Exit Regime:

As part of RIIO2, a new Licence condition was introduced which requires Gas Transporters to comply with the Exit Capacity Planning Guidance (ECPG)¹³. The ECPG provides a framework for processes and activities to ensure efficient capacity bookings are made that benefits the gas transportation network as a whole. In light of this, we are examining various aspects of the Exit capacity regime, particularly incremental User Commitment and whether capacity can be moved between offtakes. This workstream is ongoing and will be continued to be discussed with Industry as part of the 0705R “NTS Capacity Access Review” Workgroup.

Overruns:

This workstream led to the implementation of UNC Modification 0716¹⁴ “Revision of the Overrun Charge Multiplier” on 01 October 2020. This UNC Modification reduced the overrun multiplier from x 8 to x 3 on Entry and from x 8 to x 6 on Exit. Since the implementation of this UNC Modification we have reported monthly on the level of Entry and Exit overruns that are occurring. This information is presented in Transmission Workgroup and available on the Joint Office webpage.

¹¹ [UNC Modification 0755](#)

¹² [UNC Modification 0779](#)

¹³ [Exit Capacity Planning Guidance](#)

¹⁴ [UNC Modification 0716](#)

Appendix B: Functions of a Future Access Regime

National Grid NTS conducted a consultation in Q1 2020 which identified the required future functions of the capacity access regime will enable understanding of “**what**” the future regime needs to deliver. This has also been discussed at Transmission Workgroup. Below are the functions of a future capacity access regime developed as part of Transmission Workgroup and discussed in the consultation. Alongside the identified functions is a brief outline of each one.

A. Signal a need for capacity requirements

When customers signal a capacity requirement, National Grid NTS require a strong financial hurdle to be met to protect consumers from unnecessary costs and risk of stranded assets. Initial industry feedback has indicated that users feel that the current regime is too overbearing, inflexible and expensive to signal need for investment.

B. Manage network access where there is a short-term constraint

Any regime should allow National Grid NTS to forecast potential constraints and take both commercial and non-commercial mitigating actions. Feedback received so far suggests that constraints do not occur often enough for this function to be adequately assessed. However, it was also agreed that if there were to be a constraint any capacity regime must be able to suitably manage network access.

C. Provide users with commercial certainty on network access

Some users feel that while the current capacity regime provides them practical certainty on product, and the commercial right to flow, users do not have certainty on how much they will pay due to Forecasted Contract Capacity changing yearly.

D. Collect transporter allowed revenue

Although transporter allowed revenue is currently collected, the majority of revenue is collected through commodity charges rather than capacity charges. Under proposed changes to the charging methodology, a higher proportion of transporter allowed revenue will be collected through capacity charges. It is expected that the current capacity regime will allow this to happen.

E. Enable new entrants, including new sources of gas and technologies, to easily and efficiently access the NTS

Industry feel that it is important for National Grid NTS to act in an expedient manner in relation to the way the NTS is accessed by new entrants. Risks and costs of any actions taken would have to be considered, but it is important that this function is delivered as part of the future capacity access regime.

Appendix C: Options

Appendix C contains more detail on each of the options which are proposed in the main body of the report, this gives more details of how the options link to the functions and any other relevant comments which aid some of the understanding of discussion to date on the options.

A. Access Based on Flow

No upfront access bookings are required. Users pay for what they have flowed at the end of the day.

- No access booking is required.
- Users are charged based on the amount they flow.
- This option would require new methods to provide longer term network signals, a process for new users and management of constraints.
- No nomination is required.

<p>Signal Need for Capacity Requirements:</p> <ul style="list-style-type: none"> • FES data could be used to forecast long term requirements. • A new method would be required to provide long term access signals and to trigger locational needs. • Without restriction on flows the capability of the network could be exceeded. 	<p>Manage Network Access when ST Constraint:</p> <ul style="list-style-type: none"> • Without pre-booked access rights to buy-back and daily products to withhold another way to manage the network in a constraint situation may be required. However mechanisms such as locational actions and TFAs would still be available. 	<p>Commercial certainty on network access:</p> <ul style="list-style-type: none"> • This option would provide certainty of access (providing there is no constraint on the network) but not of price, similarly to the regime of today. • A method would be required for GDN certainty in order to meet 1 in 20 obligations.
<p>Collect Transporter Allowed Revenue:</p> <ul style="list-style-type: none"> • Forecasted flows would determine unit price of access. • This would be similar to General Non-Transmission Services today. 	<p>Easy and efficient access to NTS:</p> <ul style="list-style-type: none"> • This option could provide increased flexibility of access as Users can flow whatever they need or want to. • A method for new parties to secure access rights would be needed. 	<p>Interaction with other options:</p> <ul style="list-style-type: none"> • This option could be used as the 'implicit' option on just the daily product for the daily product based on flow option (option E).
<p>Conclusion/Additional Comments</p> <ul style="list-style-type: none"> • User inaccurate forecasting could impact other Users. • The forecast could need a level of granularity to signal use on different areas of the network. • The role of baselines may need to be revised. • A method would be required to ensure that flows did not exceed what the system can accommodate. • This option presents issues in relation to new users and long term planning of the network that would need to be worked through. 		

B. Access Based on Nomination

Nominations are used as up-front access bookings. Allocation is based on nominations provided.

- Access is booked based on the nominations made.
- Users have an access right up to that nomination – all sites would be required to make nominations.
- Revenue collection would be more difficult to predict.
- Flexible regime as Users can have different access rights on different days.
- Users would be charged based on their maximum nomination.
- Nominations could be increased/decreased to match flows.

<p>Signal Need for Capacity Requirements:</p> <ul style="list-style-type: none"> • FES data would be used to forecast long term requirements. • Nominations would be used as access rights. • A new method would be required to provider a long term access signal and to trigger locational needs. 	<p>Manage Network Access when ST Constraint:</p> <ul style="list-style-type: none"> • Rejection of nominations could be used to manage constraints. • This could provide mechanism to manage network access but wouldn't provide compensation for cost of the constraint . 	<p>Commercial certainty on network access:</p> <ul style="list-style-type: none"> • This option would provide certainty of access providing there is no constraint on the network. • A method would be required for GDN certainty in order to meet 1 in 20 obligations.
<p>Collect Transporter Allowed Revenue:</p> <ul style="list-style-type: none"> • Forecasted flows would determine unit price of access. • This option may result in greater under/over recoveries and greater charge fluctuation. • Users could be charged based on their maximum nomination to eliminate opportunities to exploit the system. 	<p>Easy and efficient access to NTS:</p> <ul style="list-style-type: none"> • This option could provide increased flexibility of access as Users can change nominations based on what the need and want to flow. • A method for new parties to secure access rights would be needed. 	<p>Interaction with other options:</p> <ul style="list-style-type: none"> • This option could be used as the 'implicit' option on just the daily product for the daily product based on flow option (option E).
<p>Conclusion/Additional Comments</p> <ul style="list-style-type: none"> • Inaccurate forecasting could impact other Users. • The forecast could need a level of granularity to signal use on different areas of the network. • Overruns would likely remain to ensure there is no incentive to continually nominate low. • This option presents issues in relation to new users and long term planning of the network that would need to be worked through. 		

C. Access with No Upfront Financial Commitment

Users book network access but with no financial commitment, there is no charge for access booked. Transporter allowed revenue is collected through commodity charges.

- Network could be planned based on network access in the previous year or years.
- Flexible regime as Users are not charged if they do not use all of their access rights but may be incentivised to book accurately.
- Access bookings may be vastly different to flows and therefore an incentive would be required to encourage accurate bookings.
- The amount of access rights made available to the market may need to be limited in line with capability which could prevent users from entering the market efficiently.

<p>Signal Need for Capacity Requirements:</p> <ul style="list-style-type: none"> • This option provides the opportunity to signal need but without the financial commitment Users could signal more than needed. • A mechanism would be required to incentivise accurate signalling. • Provides flexibility to Users enabling different rights on different days to better match flows. 	<p>Manage Network Access when ST Constraint:</p> <ul style="list-style-type: none"> • Constraints could become more frequent if Users regularly booked more access rights than needed. • A different mechanism would be required to manage constraints, perhaps by rejecting requests, withholding daily booking or a form of buying back access rights. 	<p>Commercial certainty on network access:</p> <ul style="list-style-type: none"> • Users can book the amount of access for the time period they want • Overbooking of access could cause issues for other parties in certain areas if the incentive to provide accurate bookings is not sufficient.
<p>Collect Transporter Allowed Revenue:</p> <ul style="list-style-type: none"> • There is no financial commitment for access therefore revenue would be collected according to use of the network • Revenue may also be collected through any accurate booking incentive, the more accurate your booking to the flow, the cheaper the unit cost of the access. 	<p>Easy and efficient access to NTS:</p> <ul style="list-style-type: none"> • New parties could signal required access through the PARCA process, paying in full for access regardless of use. • New sites may not be able to obtain access if all access rights are already allocated. 	<p>Interaction with other options:</p> <ul style="list-style-type: none"> • This option could be used as a stepping stone towards option A.
<p>Conclusion/Additional Comments</p> <ul style="list-style-type: none"> • This option may work well for some but others who have less certainty on what they would flow may incur higher costs due to the incentives related to accuracy of bookings. • This regime would become more focused on information provision, essentially replacing capacity with a forecast, with an incentive to forecast accurately. • This would give the Users flexibility to have different access rights on different days if they know what they need. 		

D. Flexible Access Pass

Users can buy the product (access) and use up to that access over a given time period such as one gas year. This could be either at a single point or at different points.

- Access could be purchased for a point and then used flexibly within that gas year.
- Alternatively, access could also be used at different points, potentially with an exchange rate.
- If the network is flexible there may be days when there would be an increased reliance on imports.

<p>Signal Need for Capacity Requirements:</p> <ul style="list-style-type: none"> • The need for capacity would be signalled but when it would be needed would be unclear. • If the product covers multiple or all points the location of the need would also be unclear. 	<p>Manage Network Access when ST Constraint:</p> <ul style="list-style-type: none"> • New mechanisms would be required to manage constraints as usage of the product is at User discretion within the given time window. 	<p>Commercial certainty on network access:</p> <ul style="list-style-type: none"> • Users would have certainty of access to use flexibly. • The product may be limited to a certain amount in a given year to protect against flows exceeding capability.
<p>Collect Transporter Allowed Revenue:</p> <ul style="list-style-type: none"> • Revenue would be collected via access rights paid for up front, in advance of use over the gas year. 	<p>Easy and efficient access to NTS:</p> <ul style="list-style-type: none"> • A process for new sites may be needed if this is a standalone option with no other products available to buy. • Users purchasing the product would be able to flow against the access rights whenever they desire increasing efficiency of access. 	<p>Interaction with other options:</p> <ul style="list-style-type: none"> • This option could be used as a standalone option but more likely as an additional product to existing or future capacity products.
<p>Conclusion/Additional Comments</p> <ul style="list-style-type: none"> • This option could be complex and difficult to manage for National Grid NTS and Users. • If this product is not restricted appropriately there is a risk of excessive flows on any given day which could result in system management issues. • It would be imperative to establish how much of the product should be made available. • Locational flexibility could be added to temporal flexibility however this could make the option increasingly complex. • An alternative is to make the flexible access pass an interruptible product, sold at the same price as firm capacity, with the premium for the extra flexibility. 		

E. Daily Product Based on Flow, Longer Products Booked

Daily flows are an implicit product (based on either flows or nominations as outlined in options A and B). All other products are based on booking access requirements.

- Access is booked for anything longer term than daily, with bookings made at different timescales for different periods further in advance.
- Daily capacity is charged based on flows on the day.
- Flexible as Users can flow up to their booked access right and any additional flow would be classed as daily implicit allocation.
- Users would not need to book access when it was not needed as they can book for shorter periods and get daily allocation based on flows.
- The daily product could work in a similar way to either option A or option B.

<p>Signal Need for Capacity Requirements:</p> <ul style="list-style-type: none"> • Access rights booked in advance for the longer term would provide signals and could be used for network planning. • Short term access requirements could be signalled via OPNs/DFNs but charges would be based on flows. 	<p>Manage Network Access when ST Constraint:</p> <ul style="list-style-type: none"> • Constraints could be managed by withholding the daily product if Option B was used. • If capacity is all after the day, a mechanism to give the market notice that a constraint is imminent (based on DFNs) would be needed. 	<p>Commercial certainty on network access:</p> <ul style="list-style-type: none"> • This option would provide the ability to secure network availability, providing users with the option to flow. • GDNs would be able to secure long term access in order to meet 1 in 20 obligations.
<p>Collect Transporter Allowed Revenue:</p> <ul style="list-style-type: none"> • Revenue would be collected through long term access rights ahead of time or through daily allocation. • There is the option to include a price differential between longer term and daily product. 	<p>Easy and efficient access to NTS:</p> <ul style="list-style-type: none"> • This option retains the process if reserving long term access required for new sites. • This option allows for flexibility to react to market conditions daily. 	<p>Interaction with other options:</p> <ul style="list-style-type: none"> • This option could use something similar to either option A or option B for the ‘implicit’ daily product or could be a stepping stone towards option A and B. • The reviewed products highlighted in options D, F and G could feed into this option.
<p>Conclusion/Additional Comments</p> <ul style="list-style-type: none"> • There could be little to no incentive to obtain access rights as Users can use the daily products to get access to the system. • If long term bookings are not used; this option would essentially become option A or B with Users paying for what they flow on the day. • There is the option to provide an incentive for Users to book longer term with cheaper products if booked further in advance, or using a fixed price for longer term bookings providing certainty of both access and price. • This option solves the potential long term access requirements problems in other options by leaving long term capacity in place. 		

F. Only Book Access Product for Short Duration

An access right to the network is only available as a product for a short duration but can be booked in advance of when needed.

- Access rights are booked further in advance (e.g. year+2) for short duration products.
- Changes can be made within day to ensure access matches requirements.
- A mechanism or product would be needed for new sites.
- No long duration access products are available.
- Users pay to book network access and have the right to flow up to that amount booked, paying a premium for flowing above their rights.
- Constraints could be managed by withholding daily capacity.

<p style="text-align: center; color: #2c5e8c;">Signal Need for Capacity Requirements:</p> <ul style="list-style-type: none"> • An alternative method for signalling long-term access would be needed if short duration products were only available for Y+2 • Short term access rights are clear from capacity bookings. 	<p style="text-align: center; color: #2c5e8c;">Manage Network Access when ST Constraint:</p> <ul style="list-style-type: none"> • This option requires a method of holding back short term capacity when there is a constraint. • A buy back mechanism (similar to today) could be used to manage constraints. 	<p style="text-align: center; color: #2c5e8c;">Commercial certainty on network access:</p> <ul style="list-style-type: none"> • There could be issues with certainty on the day with Users potentially not knowing until the day if they can get access. • There would be more certainty the further in advance Users are able to book.
<p style="text-align: center; color: #2c5e8c;">Collect Transporter Allowed Revenue:</p> <ul style="list-style-type: none"> • Revenue collected through the financial booking commitment. • There would be an Incentive to get bookings close to flows with Users paying a premium for flowing above rights. • Users could be charged based on their maximum nomination to eliminate opportunities to exploit the system. 	<p style="text-align: center; color: #2c5e8c;">Easy and efficient access to NTS:</p> <ul style="list-style-type: none"> • A separate process for new sites would be needed, to signal the need for capacity which may require long term commitment. This could potentially link in to the PARCA Process • A method for new parties to secure access rights would be needed. 	<p style="text-align: center; color: #2c5e8c;">Interaction with other options:</p>
<p style="text-align: center; color: #2c5e8c;">Conclusion/Additional Comments</p>		
<ul style="list-style-type: none"> • There could be an option to differ pricing, providing an incentive to book in advance to obtain commitment of access rights as far in advance of the day as possible. 	<p>Flows should be more aligned to bookings as they are booked for short durations with no enduring commitments.</p>	<ul style="list-style-type: none"> • Deliberate overbooking with no intention to flow could be an issue where there is more than one shipper per point. If charges were to be based on maximum nomination, this issue would be less prominent.

G. Access Rights Booked

Long term and short term capacity bookings are available and can be made in different timescales for different periods further in advance.

- Long-term and short term capacity booking available for certain timeframes e.g. Yearly, Monthly, Weekly, Daily, Within Day.
 - Constraints could be managed by withholding daily capacity.
- Users pay to book network access and have the right to flow up to that amount booked paying a premium for flowing above their rights.
- First come, first serve principle, when the access rights are booked up then another means of getting that access would need to be established.
 - A mechanism of capacity surrender, if others are willing to purchase it, could be included.

<p style="text-align: center; color: #2c5e8c; margin: 0;">Signal Need for Capacity Requirements:</p> <ul style="list-style-type: none"> • Long-term and short term access can be booked further in advance. • This option provides daily flexibility of access requirements in advance of the day. 	<p style="text-align: center; color: #2c5e8c; margin: 0;">Manage Network Access when ST Constraint:</p> <ul style="list-style-type: none"> • This option requires a method of holding back daily capacity when there is a constraint. • A buy back mechanism (similar to today) could be used if required. 	<p style="text-align: center; color: #2c5e8c; margin: 0;">Commercial certainty on network access:</p> <ul style="list-style-type: none"> • There could be issues with certainty on the day with Users potentially not knowing until the day if they can get access. • There would be more certainty the longer in advance Users are able to book. • Amount of the baseline capacity released will influence certainty.
<p style="text-align: center; color: #2c5e8c; margin: 0;">Collect Transporter Allowed Revenue:</p> <ul style="list-style-type: none"> • Revenue collected through the financial booking commitments. • There would be an Incentive to get bookings close to flows with Users paying a premium for flowing above rights. 	<p style="text-align: center; color: #2c5e8c; margin: 0;">Easy and efficient access to NTS:</p> <ul style="list-style-type: none"> • Process for new sites could be as today based on long term bookings. 	<p style="text-align: center; color: #2c5e8c; margin: 0;">Interaction with other options:</p> <ul style="list-style-type: none"> • This option could link to option F with a move to shorter duration products.
<p style="text-align: center; color: #2c5e8c; margin: 0;">Conclusion/Additional Comments</p> <ul style="list-style-type: none"> <li style="width: 30%;">• Depending on products available, there may be more options relating to how far in advance Users can book and for what durations. <li style="width: 30%;">• More access would be expected to be booked closer to the day as Users can book more in the short term. <li style="width: 30%;">• Access booked should therefore be more aligned to what is flowed on the system. <li style="width: 30%;">• There is flexibility in this option as to what is considered “long-term” and “short-term”. <li style="width: 30%;">• There could be an option to not allow Users to increase rights up to within day but not decrease to resolve this. 		