

Annex 1 – Supporting Documentation

Views of the Proposer of 0678J

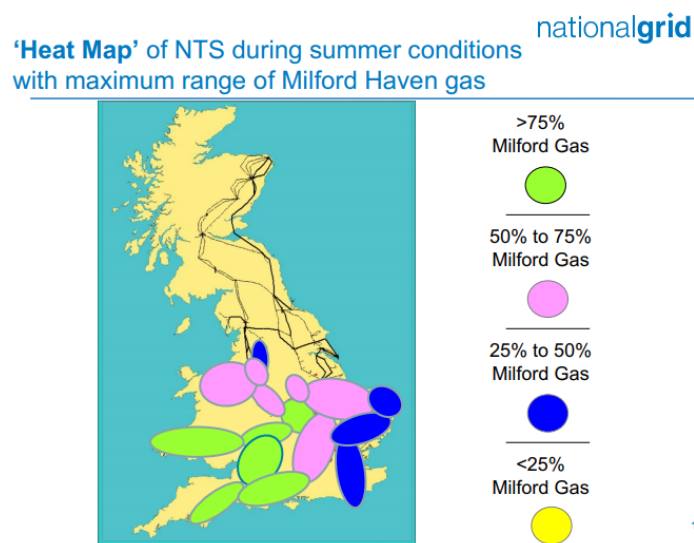
Reference Price Methodology

Analysis comparing the Postage Stamp and Capacity Weighted Distance Reference Price Methodologies (RPM) has been conducted by RWE¹ as part of UNC 0678A which South Hook Gas endorses and therefore used to support 0678J.

In summary the analysis considers the potential differences in revenue recovery across the NTS that occur through the application of the Postage Stamp and CWD RPM. It is noted that the removal of distance as a cost driver results in reduced revenue recovery from entry and exit points that are at the extremities of the NTS. This is consistent with Ofgem’s observations in their UNC 0621 decision letter² which highlight the potential weakness in using distance as a cost driver as it could attribute a greater proportion of network costs to points on the network that have a longer average distance to other points on the NTS.

In addition to the 0678A comparison analysis, South Hook Gas would like to highlight the Milford Haven “Heat Map” analysis National Grid has previously conducted UNC Modification 0645S³. The analysis shows NGG’s view on the penetration of gas from the Milford Haven ASEP and Figure 1 illustrates the “worst case” scenario for Milford Haven Gas penetration into the NTS. The network analysis highlights that there is no scenario where Milford Haven gas flows into, or past, the North East area of the NTS.

Figure 1: Heat Map analysis showing the maximum penetration of Milford Haven gas into the NTS



Milford Haven cannot flow to all Exit Points on the NTS and given that the Milford Haven ASEP is one of the largest serving the NTS, it therefore can be assumed that most Entry Points on the NTS would be consistent with this.

Ofgem’s decision letter on UNC 0621 indicates that, given the low levels of anticipated new investment on the NTS, capacity charges should seek to recover sunk costs on the NTS. This network analysis highlights the issue of using a distance cost driver that averages distances from an Entry Point to all

¹ “0678A Analysis provided by RWE” found at <https://www.gasgovernance.co.uk/0678/Analysis>

² See <https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/page/2018-12/Ofgem%20Decision%20Letter%200621.pdf>

³ See <https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/book/2018-02/0645S%20-%20Heat%20Map%20Analysis.pdf>

Exit Points on the system⁴ which is not representative of how the NTS is used and leads to costs being incorrectly allocated and could result in prices being set in a discriminatory manner. It is not possible to allocate historic costs to specific points, or routes, on the NTS and therefore the removal of a distance cost driver is appropriate, and the usage of a Postage Stamp RPM is more suitable.

Optional Capacity Charge

The analysis set out here is specific to impact of introducing the OCC as proposed in Modification 0678J.

The OCC analysis was performed by National Grid⁵ as the base data is commercially confidential.

OCC Impacts

a) Impact on OCC flows

Table 1 shows the reduction in OCC flows under Modification 0678J compared to the current flows (2017/18 completed gas year). The analysis conducted assumes that where the combined OCC charge (at entry and exit) is less than the standard transportation charge then the User will elect to use the OCC service.

Actual OCC flows are likely to be less than stated in Table 1 for the following reasons:

- (i) The lower capacity price for Existing Contracts⁶ is not considered within the analysis, which would result in lower weighted capacity prices for a number of Users and therefore make a number of OCC routes uneconomical
- (ii) As Existing Contracts expire, the calculated reserve prices will reduce and therefore the OCC would become less attractive on a number of routes

The figure below therefore represents an absolute maximum value and is not reflective of the expected take up of OCC under 0678J.

Notwithstanding the above, Table 1 shows that, at a minimum, flows will reduce by 98,222 GWh for 2019/20 compared to 2017/18, which is a decrease of around 40%. The analysis also shows that all OCC routes under 0678J solution are under 30km compared to 274km under the current OCC methodology⁷.

Table 1: Comparison of OCC flows using 2017/18 completed gas year and 2019/20 forecast prices from 0678J

2017/18	Actual	Optional Charge flow GWh	244,508
2019/20	678J	Optional Charge flow (based on 2017/18 GY) GWh	146,283

b) Impact on Under-recovery

Table 2 compares the level of under-recovery associated with the utilisation of OCC under 0678J during a period where the current level of Existing Contracts are in place. The analysis indicates a reduced combined under-recovery of £55m which represents a significant reduction in under-recovery compared with approximately £139m in 2017/18. This assumes the full take up of OCC

⁴ As of 27th March 2019, UNC 0678 and all Alternatives that propose using the CWD RPM use this distance cost driver

⁵ "National Grid Optional Charge Analysis v1.0" found at <https://www.gasgovernance.co.uk/0678/Analysis>

⁶ Entry Capacity allocated prior to EU TAR NC implementation on 6th April 2017

⁷ Optional Charge Analysis Paragraph 67

however, as discussed above, SHG believes this to be unlikely. In the near term there is likely to be an impact on the utilisation of the OCC because of Existing Contracts, however, given the underlying assumptions with Table 2, along with the confidential nature of the Existing Contracts data, it is difficult to determine an accurate reflection of what the impact would be. If the under-recovery on Entry were to be more in-line with Exit then in the near term the total combined under-recovery could be in the region of £20m.

Table 2: Comparison of under-recovery from OCC use using 2017/18 completed gas year and 2019/20 forecast prices from 0678J

			Entry	Exit
2019/20	678 PS	Total Revenue Recovered (£):	325,638,141	318,084,409
		Target Revenue Recovery (£):	337,823,191	337,823,191
		Revenue Input Figure Adjustment (£):	-12,185,049	-19,738,781
2019/20	678J	Rev from Optional Charge flow @ 678 capacity prices	58,678,619	22,727,494
		Rev from Optional Charge flow @ 678J capacity prices	5,488,720	5,488,720
		Annual OCC Fee	7,814,930	7,814,930
		678J Under Recovery	-45,374,969	-9,423,844

c) Impact post Existing Contracts

National Grid conducted further analysis to determine impact of the 0678J OCC solution should Existing Contracts not be considered within the RPM (i.e. to represent the enduring scenario once Existing Contracts have expired). Table 3 shows the level of under-recovery associated with the utilisation of OCC under 0678J with excluding Existing Contracts. This analysis confirms that the under-recovery for 2019/20 would be approx. £20m without Existing Contracts.

Table 3: Comparison of under-recovery from OCC using 2017/18 completed gas year and 2019/20 forecast prices from 0678J - excluding existing contracts

678J			Entry	Exit
2019/20	678J	Rev from Optional Charge flow @ 678 capacity prices	25,034,469	22,624,401
		Rev from Optional Charge flow @ 678J capacity prices	5,488,720	5,488,720
		Annual OCC Fee	7,814,930	7,814,930
		678J Under Recovery	-11,730,819	-9,320,751

d) Impact on Reserve Prices

The analysis for 0678J determined that reserve prices in an enduring scenario (post Existing Contracts) for Entry and Exit users not on OCC would increase by 12% and 10%⁸ respectively as a result of the under-recovery from OCC. The near term “worst case” price impact indicates an increase of 39% and 10%⁹ respectively.

In addition, National Grid looked at the impact on reserve prices¹⁰ if current (2017/18 gas year) OCC users left the NTS and built private pipelines. The results of this sensitivity analysis can be seen in Table 4.

⁸ Optional Charge Analysis, Paragraph 75

⁹ Optional Charge Analysis, Paragraph 72

¹⁰ Using the CWD RPM from National Grid’s 0678 solution

The most comparable sensitivity to the Modification 0678J proposal is NTS OCC routes less than 30 km (given all routes within the 0678J solution are under 30km¹¹). This indicates that the redistribution of the Entry and Exit under-recovery from the OCC in 0678J (approx. reserve price increase of 12% and 10%, respectively) is likely to be less than the redistribution of revenues if those OCC users were to build private pipelines and no longer use the NTS (reserve price increases of up to 32% for Entry and 21% for Exit). Even when comparing the results with “worst case” scenario for the short term, the solution is roughly comparable with the 30km scenario, with 39% increase for Entry and 10% for Exit, although in reality this redistribution figure for the OCC would be lower when allowing for Existing Contracts prices.

Table 4: Reserve price increase if OCC users no longer used the NTS

	NTS OCC routes less than 20km	NTS OCC routes less than 30km	NTS OCC routes with >80% NTS OCC flow	All NTS OCC routes
Entry	+16% to +23%	+24% to +32%	+34% to +45%	+46% to +54%
Exit	+11% to +18%	+14% to +21%	+18% to +26%	+29% to +35%

OCC Summary

Noting the limitations of the analysis above, the analysis shows that as a minimum:

- Total OCC flows for 2019/20 gas year would be reduced by a minimum of 98,222 GWh (40%), compared to the current methodology.
- The maximum distance would be reduced to below 30km (compared to approx. 270km under the current methodology)
- The number of routes using OCC would be reduced to 18 (compared to 58 currently under the current methodology)
- Redistribution of under-recovery from OCC is likely to be lower than if those OCC users were to avoid the NTS

South Hook Gas believes that 0678J limits the availability of OCC to those Users that are otherwise likely to progress private investment options that bypass the NTS. This analysis shows that there is a benefit to keeping these users within the NTS and that there is a low, if any, cost impact as a direct result of the OCC solution contained within 0678J. The solution also provides wider system benefits which are highlighted within the Relevant Objectives section of the 0678J Modification¹².

¹¹ Optional Charge Analysis, Paragraph 67

¹² Modification 0678J can be found at <https://www.gasgovernance.co.uk/0678/>