Waters Wye Associates

Overrun Multipliers

Nick Wye on behalf of Storengy UK

Why overruns?
Principles

Waters Wye Associates

Overrun charges should provide an incentive on shippers to book NTS Entry and Exit Capacity

- Any incentive should be set at a level to encourage capacity bookings close to “need”
  - Overbooking to insure against overrun will create false scarcity and mislead NGG
  - Excess bookings will increase TO revenue which in turn will require balancing via k factor or Revenue Recovery Charge. This creates uncertainty and unpredictability in capacity costs for shippers

- Overrun charges should be proportionate
  - Provide an incentive to book, but not be unduly penal. Revenues raised from overruns will be allocated to shippers via capacity neutrality, resulting in a windfall benefit as a result of shipper error
  - The NTS is “unconstrained”, meaning there is generally surplus of capacity. The provision of additional “unbooked” capacity via overruns is at no cost to NGG and does not disadvantage or undermine the market
    - Where the NTS is constrained, overruns could be priced at levels greater than the default multiplier (currently 8) multiplied by the auction price. The alternative overrun charges will better reflect the cost of managing the NTS during a constraint.

UNC 0716
Headlines

Proposal to reduce multipliers to [3] at Entry and [6] at Exit

- Justification for reduction is to maintain the *status quo* based on historical levels of overrun revenues
- Data has been produced by NGG which focuses on overrun revenues during GY 17/18 and 18/19. It does not seek to identify the reasons that the overruns occurred or whether they encourage desired booking behaviour
- **Overriding principle is that the level of overrun revenue, and therefore overrun exposure, on average, should not be impacted by a change in the charging methodology**

This assumes:

1. The change in the charging methodology will not impact shipper capacity booking behaviour and the effects of this behavioural change will not have wider impacts
2. That the overrun regime is fit for purpose and should not be subject to a broader review.
3. That the level of the overrun charge incentivises booking of capacity and that the penalty is proportional to the “crime”.

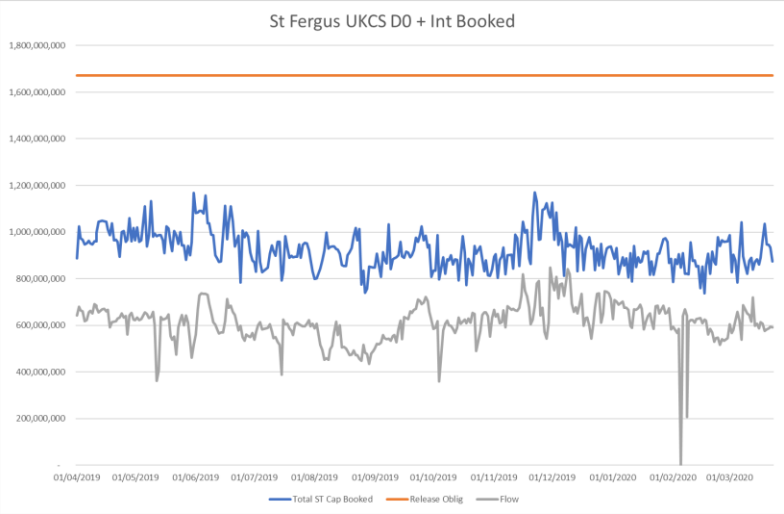
Looking forward
Main features

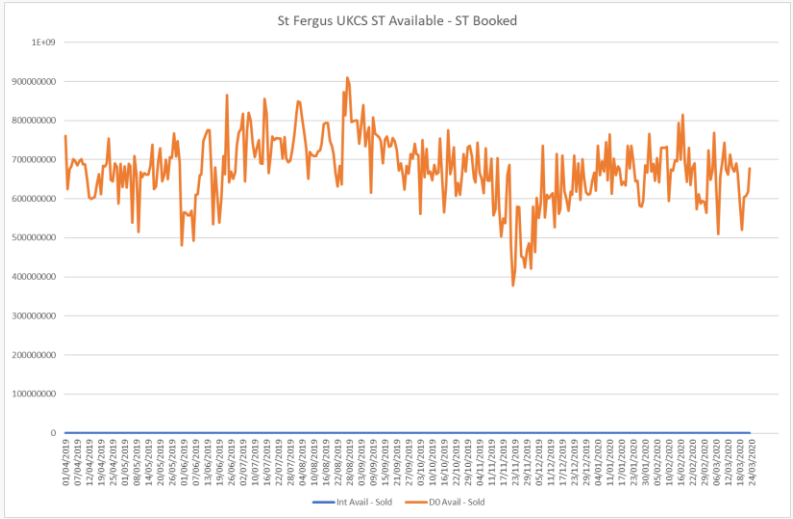
- The implementation of UNC 0718/0718A will inflate capacity prices at a number of points.
  - Entry prices are particularly impacted, as currently LRMC's are not scaled up to reflect allowed revenue
- Both modifications also remove short-term firm entry capacity discounts and limit the interruptible discount to 10% of firm charges

- It is reasonable to expect that shippers will endeavour to book capacity at levels close to expected flows in order to limit capacity costs
- As now, bookings will be predominately on a short-term basis in order to ensure bookings reflect flows
  - Expect bookings to be as late as possible within day, limiting usefulness of capacity bookings as a NTS utilisation forecasting tool
- Overbooking will be limited to mitigating against overrun risk

- The following slides show entry capacity booking behaviours at St Fergus and Bacton UKCS in relation to within-day firm and interruptible entry capacities

St Fergus
Short Term Bookings



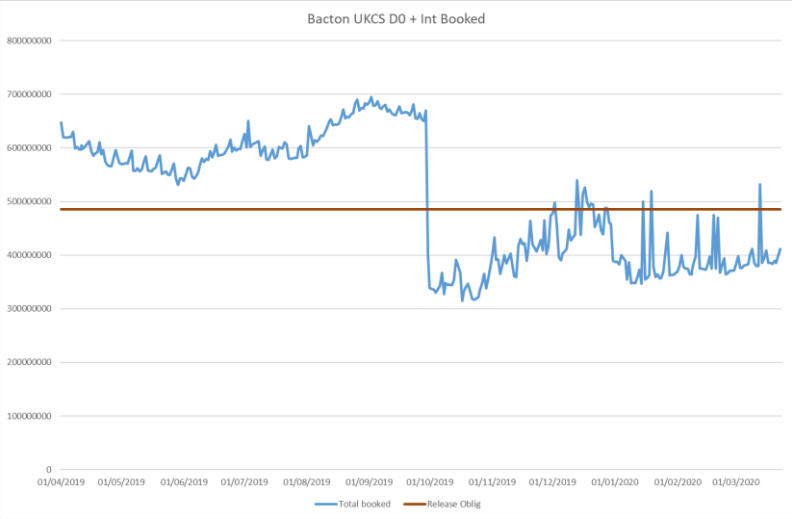


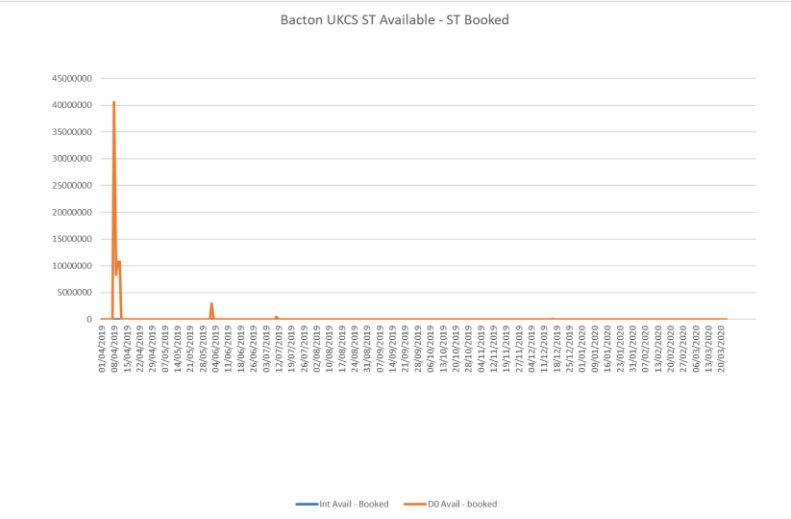
Observations

Total ST Capacity bookings equate to over 50% of Monthly Obligated volume and exceed flows

All Available Interruptible Capacity is bought each day

Bacton UKCS
Short Term Bookings





Observations

Total ST Capacity bookings exceed or are close to Monthly Obligated Volumes

All Available Interruptible Capacity is bought each day

Lessons from history
Justifications

Nothing from the past can be used to inform the future

- The overbooking of Short Term Capacity under the current regime is explained by the zero cost of capacity. Assume that many shippers place bids for surplus within day capacity, paying little attention to actual need

- It is reasonable to assume that all overrun incidents are due to shipper error as there are no strategic/cost saving benefits to be gained.

- In future, the significant increase in the cost of Short Term capacity will require shippers to invest more resources into capacity acquisition, however, while Gemini process require manual intervention there is a greater risk of user error.
  - Room for error is reduced, as shippers attempt to minimise costs by acquiring capacity volumes close to flows

Impact of 0678A
Absolute price impacts

Non-weighted capacity price increases at Entry

- Prices will be, on average, 76 times higher following 0678A
  - Max is 429 times and min of 0.81.
- There is a huge variance in impacts across all points
- Will bring capacity acquisition processes into sharp focus
- Where zero price is currently paid, increases will be infinite

Entry Point	MSEC Oct 20	PS Oct 20	Multiple Increase
Bacton	0.0095	0.0429	4.52
Barow	0.0015	0.0429	28.60
Easington	0.0149	0.0429	2.88
Isle of Grain	0.0001	0.0429	429.00
Milford Haven	0.0235	0.0429	1.83
St Fergus	0.0532	0.0429	0.81
Teesside	0.0087	0.0429	4.93
Theddlethorpe	0.0134	0.0429	3.20
Hatfield Moor	0.0035	0.0429	12.26
Barton Stacey	0.0001	0.02145	214.50
Cheshire	0.0001	0.02145	214.50
Garton	0.013	0.02145	1.65
Hole House	0.0001	0.02145	214.50
Hornsea	0.014	0.02145	1.53
Hatfield Moor Store	0.0035	0.02145	6.13
Average	**0.0106**	**0.5148**	**76.06**

Impact of 0678A
Impact of overruns

Non-weighted overrun penalties

- Comparing 8x multiplier under current charging regime with 3x multiplier under Postage Stamp
- Shows absolute penalty increases, on average, are 28x higher
- Where a single multiplier is to be applied to all entry points it should not significantly penalise some entry points more than others

Entry Point	8x MSEC	3x PS	Multiple Increase
Bacton	0.076	0.1287	1.693421053
Barow	0.012	0.1287	10.725
Easington	0.1192	0.1287	1.079697987
Isle of Grain	0.0008	0.1287	160.875
Milford Haven	0.188	0.1287	0.684574468
St Fergus	0.4256	0.1287	0.302396617
Teesside	0.0696	0.1287	1.849137931
Theddlethorpe	0.1072	0.1287	1.200559701
Hatfield Moor	0.028	0.1287	4.596428571
Barton Stacey	0.0008	0.06435	80.4375
Cheshire	0.0008	0.06435	80.4375
Garton	0.104	0.06435	0.61875
Hole House	0.0008	0.06435	80.4375
Hornsea	0.112	0.06435	0.574553571
Hatfield Moor Store	0.028	0.06435	2.298214286
Average	**0.084853**	**0.10296**	**28.52068228**

Conclusions
Proposed multipliers

Using historical overrun revenues to inform future multipliers ignores the causes of overruns and the changes to capacity booking behaviour in the future

- There has been no strategic advantage to be gained from under booking capacity
  - Only rational explanation is User error
- The Postage Stamp methodology requires that bookings are close to forecasts to ensure price stability
  - Excessive overrun penalties will incentivise shippers to overbook which will have wider charging impacts (will also create false scarcity)
- The significant increases in reserve prices under UNC 0678A will require that shippers more closely match capacity bookings with flows
  - User error could become more frequent as a result
- The impact of UNC 0678A at individual points is varied (on average 76x higher) and a standard overrun multiplier should be fair and not excessively penal

Proposed that multipliers at entry and exit should be set at [1.1]

Our leadership team

Lisa Waters

Founding Director

Lisa is an economist with over 20 years' experience in the energy sector. She has worked for the Energy Intensive Users Group (EIUG), independent gas supplier V-is-on gas and Dynegy. Prior to entering the energy sector, Lisa worked at the CBI. Lisa leads on electricity sector work, though she also has a detailed knowledge of the UK gas market.

Lisa is currently an industry expert on the Imbalance Settlement Group under the BSC. She has significant lobbying experience, including giving evidence to Select Committees in the Commons and Lords, and representing EU gas customers at the Commission's Regulatory Forum meetings.

Nick Wye

Founding Director

Nick is an economist with over 20 years' experience in the energy sector. Earlier in his career, he has worked for TotalFinaElf Gas and Power, a gas producer, a trader, a supplier, an independent pipeline owner/operator and has experience of working at all levels of the supply chain including offshore projects, gas shipping issues and end user supply. He has also been involved in asset deals, both in the power and gas markets, in the UK and continental Europe.

His work on the boards of several European trade associations and committees has given him an in-depth knowledge of most European markets. Despite his knowledge of the power sector, Nick leads on gas market projects and has considerable expertise in gas storage.

Gareth Evans

Director

Gareth is an astrophysicist with over 15 years' experience in the energy and financial sectors. He began his career at Elexon, working subsequently for Total Gas & Power and UBS, where he helped to inaugurate its European power and gas trading, overcoming the associated regulatory and compliance issues.

As a result he has direct knowledge of the entire supply chain for both UK and European power and gas markets, plus experience of dealing with all their relevant stakeholders, including regulators, suppliers, shippers, generators/producers and European bodies.

Gareth Evans is chair of ICoSS, which is the trade body for independent non-domestic retail energy suppliers.

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