GTAC Workshop Block 2

9 August 2018

Agenda

Agenda Items		Indicative Timing
	Workstream 5 – Transmission Fees	
5.3	Rebate Mechanism	9-10am
5.1	Transmission Incentive Fees	10am-12pm
	Lunch	12-12:30pm
5.2	ERM Charges	12:30-2pm
	Workstream 2 – Linepack Management and Intraday Flexibility	
2.2	Review of Peaking Regime Proposal	2-3pm

5.3 Rebate Mechanism

Discussion Objective

Discuss options for rebating differences between revenue cap and actual revenue

GTAC Reference

11

FAP Findings

Rebate mechanism worse due to a new entrant coming up against incumbents with rebates (59)
Pass-through of rebates may increase costs to consumers

Supporting Material

What are the pros and cons of the rebate?

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Pros

- Direct recycling of incentive charge revenue at the time the charges are incurred, rather than requiring shippers to wait until subsequent regulatory years
- Avoids intertemporal issues that arise from parties entering or existing the gas industry
- Provides a more direct benefit to parties that manage their transmission system use well during the month.
- First Gas does not need to forecast revenue to be earned from incentive charges in a regulatory year

Cons

- Potentially favours larger shippers
- Distorts the incentives under the GTAC, including to ensure accurate daily nominations and the need to procure Priority Rights
- Could require changes to downstream gas contracts that result in the rebates not being passed through to end-users of gas

Rebate mechanisms under the GTAC

Current GTAC drafting could be improved to target curtailment following a receipt point outage:

GTAC Current

- All incentive fee revenue (overrun/underrun, hourly overrun, overflow) is rebated based on usage the month following invoice
- All Excess Running Mismatch Charges are rebated the month following invoice based on delivered quantities
- All PR Charges are credited the month following invoice based on nominations

GTAC Proposed

- FG estimates incentive fees and ERM Charges for the coming year and includes these in price setting
- Under-recovery/over-recovery is recycled to industry with the DPP price cap washup
- Only PR Charge revenue is rebated the month following invoice, rebated based on DNC charges the month following invoice

First Gas Position:

- The previous rebate mechanism for incentive fees had the potential to create issues if not passed through transparently
- The rebate of PR charges is appropriate as this revenue is unable to be estimated
- Rebating based on DNC charges is the least-distortionary method

5.1 Transmission Incentive Fees

Discussion Objective

Discuss level of incentive fees
Identify changes to ensure higher fees only apply when congestion is in place

GTAC Reference

s. 11.4

FAP Findings

- Incentive charges (daily overruns/underruns) not symmetrical (12)
- Level of incentive charges too high (12)
- May encourage inefficient pipeline usage decisions or excessive efforts for nominations accuracy (54)
- Higher fees should not apply at congested delivery points when congestion is not evident (13, 55)
- High incentive charge reduces competition as it is not cost reflective (13, 60)
- Disproportionately high in non-congested situations (60)
- Hourly overrun fees and rebates

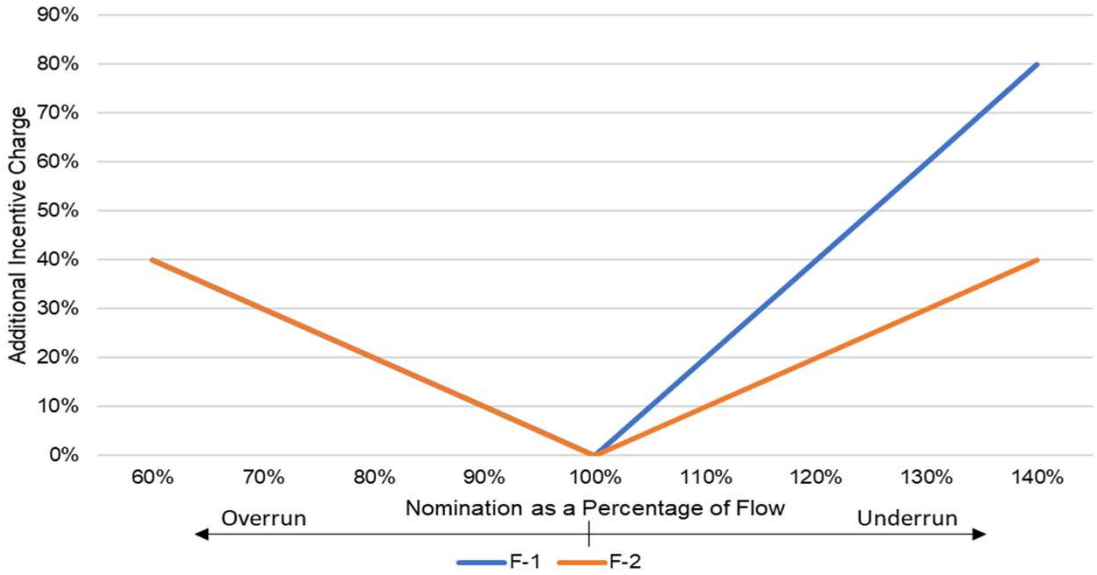
Supporting Material

- Transmission pricing dry run
  - Indicative pricing to illustrate pricing approach under GTAC
- Overrun Fee at F1.5, Underrun Fee at F -2
  - Presentation on estimated quantum of incentive fee revenue at this level

Incentive Fees - Symmetry

- We accept the findings of the FAP
  - F-1 does not provide for a symmetrical incentive when combined with the DNC Charge

- We propose changing the underrun to F-2



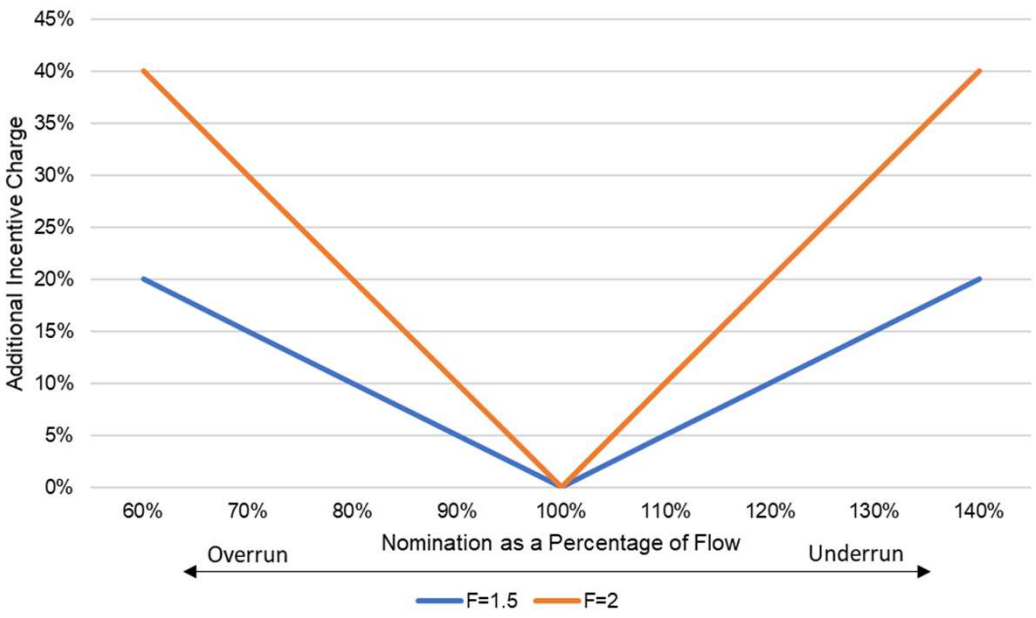
First Gas Position:

- We believe that this change addresses the issue of symmetry between overrun and underrun

Gas Flow	Nomination (DNC = 1)	Overrun Fee (DNC x 2 = 2)	Underrun Fee (DNC x 0 = 0)	Total Fee	$/GJ
10	6	8	-	14	1.40
	7	6	-	13	1.30
	8	4	-	12	1.20
	9	2	-	11	1.10
	10	-	-	10	1.00
	11	-	-	11	1.10
	12	-	-	12	1.20
	13	-	-	13	1.30
	14	-	-	14	1.40

Aggregate Level of Incentive Fees

- FAP notes that fees are too high as a percentage of Transmission Revenue
- Reducing F to 1.5 reduces the quantum of fees to around 4% of revenue



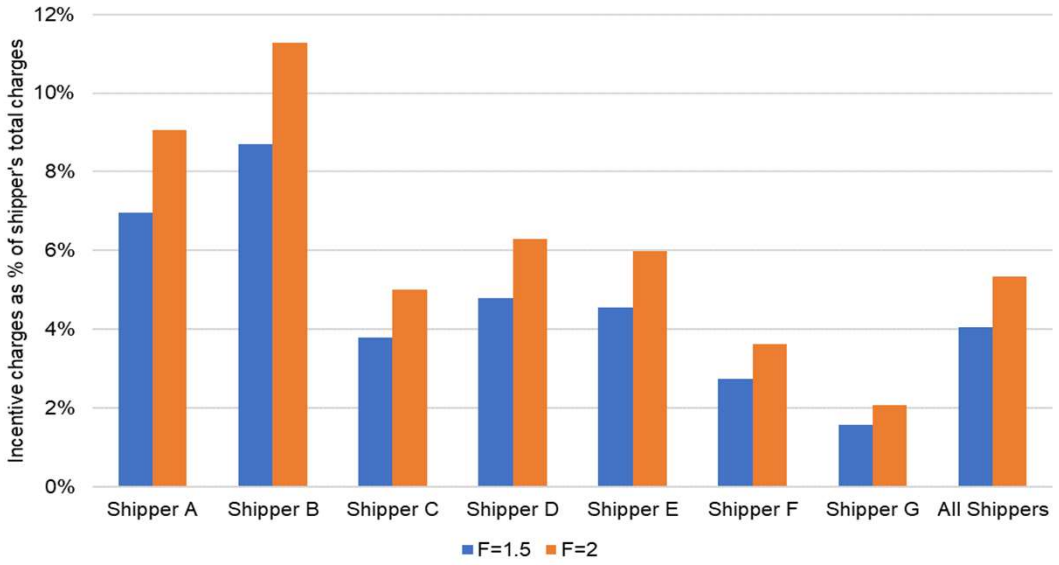
First Gas Position:

- We believe that this change addresses the scale of the fees
- We accept the premise that fees may be adjusted up to F=5 following shipper consultation and that it may be better to 'start low' and adjust upwards if incentive fees are not driving the right behaviour

	DNC Revenue	Underrun Revenue	Overrun Revenue	Other Revenue	Total Revenue
Delivery Zones	$76,329,218	-$1,887,983	$6,513,542		$80,954,777
Delivery Points	$19,988,862	-$99,945	$299,833		$20,188,750
SAs				$25,865,192	$25,865,192
ICAs				$882,676	$882,676
Total	$96,318,080	-$1,987,928	$6,813,376	$26,747,868	$127,891,396
Incentive Fees as a percentage of total transmission revenue					**4%**

Incentive Fees and Fairness

- We have repeated previous analysis with F=1.5 and F-2
- The spread of incentive fees as a percentage of Transmission Fee revenue has narrowed
- This does not consider the potential for further averaging if the proposal for auto-nominations for mass market shippers is adopted
- Actual experience will be different from forecast. Suggests value in reviewing the effectiveness of incentive fees after some time (e.g. 18 months)



First Gas Position:

- We believe that the changes to the fee structure have reduced the potential for some shippers to be unfairly targeted
- We believe that the adoption of a mass market nomination system will further improve this outcome

Incentive Fees and Congestion

Higher Incentive Fees apply at Congested Delivery Points:

GTAC s. 11.4

- At non-congested points F=1.5 (previously 2)
- At Congested Delivery Points F= 7.5 (previously 10)
- This increase further incentivises flowing to nominations in times of congestion

Issues

- Although the Delivery Point may be congested, the flow on the day may not be creating congested and hence the additional incentive may not be justified
- FG may not know if the point was actually congested or not until after the day. Potentially could base increasing fee on nominations
- The important outcome for us is that Shippers are informed of the risk of congestion and act accordingly

Key question:

- Should a higher incentive charge be applicable where there is congestion?
- How should this be determined?

First Gas Position:

- We believe that incentives should be heightened where there is more risk of inaccurate nominations impacting other users
- FG could use nominations as a trigger for increasing incentive charges (e.g. 90% of capacity)

Transmission Pricing Methodology Outline

Basis

Identify revenue currently earned from each GTAC zone and dedicated delivery point, and to convert this revenue into a DNC fee for the corresponding zone or delivery point. This ensures that a consistent level of revenue will be collected at each location on the network on an annual basis.

1

Forecast flows for the coming pricing year

- Independent estimate of quantities, peer reviewed internally
- Account for growth in existing loads and known new loads coming onto the system
- All gas enters in the GTAC receipt zone - no requirement examine receipt point production

2

Forecast overruns and underruns

- Proxy data for potential for overrun at each DP and DZ:
  - VTC system - data from BPP pool receipts in relation to deliveries
  - Maui system – data from intra-day 4 nominations in relation to actual flows
- Classified zones based on their potential to overrun or underrun

3

Establish the DNC revenue base

- Forecast Allowable Revenue under the DPP calculated
- Forecast revenue from SAs and ICAs deducted to establish the revenue to be recovered through DNC Fees/Incentive Fees

4

DNC Revenue at DZ and DP level

- The revenue for each Delivery Point and Zone was then allocated based on:
  - Forecast VTC charges for each DP based on capacity, throughput and overrun charges
  - Forecast MPOC revenue from small Welded Points, dedicated Delivery Points and TP Welded Points
- MPOC TP Welded Point MPOC charges allocated proportionally to forecast flows for each point on the non-Maui system
- Gave the Initial Target Revenue for each DZ
- Adjustment made based on:
  - Comparison of the unit price based on forecast flows and previous year's capacity booking
  - Parity between points in the same area
- Charges totalled per Delivery Zone or Delivery Point to give the Target Revenue for that location

5

DNC fee calculation

DNC fee for each DZ/DP calculated:

DNC Fee = DNC Target Revenue/(Throughput Quantity + Overrun Quantity x F + Underrun Quantity x (F-2))

Revenue Allocation

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Zone	August 2017 Naming	2018/19 Pricing Inputs Throughput (GJ)	Estimated VTC/MPOC Revenue ($)	Estimated GTAC Revenue ($)	Change (%)	Comments
Delivery Zones						
Northland	Zone 5	317,843	$826,492	$784,468	-5.1%	Adjustment made to moderate zone pricing
Auckland	Zone 4	15,553,280	$29,930,392	$29,690,532	-0.8%	
Waikato North	Zone 6	1,810,162	$3,721,479	$3,599,635	-3.3%	
Hamilton	Hamilton	1,626,164	$2,138,247	$2,333,234	9.1%	Align with other points in the region
Mokau North	Zone 3	710,906	$1,520,008	$1,413,687	-7.0%	Align pricing in Waikato North and Waikato South
Waikato South	Zone 13	4,397,206	$10,031,054	$8,744,348	-12.8%	Align pricing in Waikato North and Mokau North
Bay of Plenty West	Zone 14	1,085,544	$2,363,830	$2,508,443	6.1%	Reallocation to align pricing on a regional basis
Bay of Plenty South	Zone 15	1,754,742	$3,814,005	$4,211,606	10.4%	Reallocation to align pricing on a regional basis
Bay of Plenty East	Zone 16	1,224,698	$4,079,788	$3,105,406	-23.9%	Reallocation to align pricing on a regional basis
Eastland	Zone 17	425,521	$1,297,621	$1,097,303	-15.4%	Reallocation to align pricing on a regional basis
Central South	Zone 7	1,134,173	$714,495	$453,483	-36.5%	Reallocation to align pricing with Mokau South
Mokau South	Zones 1&2	7,629,047	$2,807,007	$3,050,366	8.7%	Reallocation to align pricing with Central South
South Taranaki – Whanganui	Zone 8	1,450,828	$2,701,737	$2,543,806	-5.8%	Reallocation to allow for unit price consistency
Manawatu – Horowhenua	Zones 9&11	2,473,302	$5,015,182	$4,433,328	-11.6%	Reallocation to allow for unit price consistency
Hawkes Bay	Zone 10	2,079,646	$3,874,309	$3,823,895	-1.3%	
Wellington	Zone 12	4,251,041	$9,199,378	$9,161,236	-0.4%	
Delivery Points						
Bertrand Road (Waitara Valley)		17,711,098	$2,895,309	$2,867,498	-1.0%	
Faull Road		10,287,409	$784,343	$777,058	-0.9%	
Huntly Power Station		24,963,209	$11,602,152	$11,489,668	-1.0%	
Ngatimaru Rd (Delivery)		42,477,457	$5,103,620	$5,054,526	-1.0%	
TOTAL		**143,363,276**	**$101,143,528**	**$101,174,844**		

Pricing

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Zone	Overrun/ Underrun Category	Current DNC Fee Estimated ($/GJ)	Notional DNC Fee Under MPOC/VTC ($/GJ)	DNC Fee Estimated in 2017 ($/GJ)	Comments on differences 2017 to 2018
Delivery Zones					
Northland (Zone 5)	MH	$2.33	$2.60	$1.98	
Auckland (Zone 4)	MH	$1.80	$1.92	$1.77	
Waikato North (Zone 6)	MH	$1.87	$2.06	$2.02	Align with Mokau North
Hamilton (Hamilton)	MH	$1.35	$1.31	$1.12	Align with nearby zones
Mokau North (Zone 3)	MH	$1.87	$2.14	$1.16	Align with Waikato North
Waikato South (Zone 13)	H	$1.85	$2.28	$1.88	
Bay of Plenty West (Zone 14)	H	$2.15	$2.18	$2.07	Align with Waikato
Bay of Plenty South (Zone 15)	H	$2.24	$2.17	$2.08	More granular pricing adopted
Bay of Plenty East (Zone 16)	H	$2.36	$3.33	$2.08	More granular pricing adopted
Eastland (Zone 17)	H	$2.40	$3.05	$2.08	More granular pricing adopted
Central South (Zone 7)	M	$0.38	$0.63	$1.92	Change to SAs in the region
Mokau South (Zone 1-2)	M	$0.38	$0.37	$0.72	Change to SAs in the region
South Taranaki – Whanganui (Zone 8)	M	$1.67	$1.86	$1.92	Change to SAs in the region
Manawatu – Horowhenua (Zone 9-11)	M	$1.71	$2.03	$2.14	Changes to forecast flows
Hawkes Bay (Zone 10)	M	$1.75	$1.86	$1.77	
Wellington (Zone 12)	M	$2.05	$2.16	$2.18	Changes to forecast flows
Delivery Points					
Bertrand Road (Waitara Valley)	L	$0.160		NA	
Faull Road	L	$0.075		NA	
Huntly Power Station	L	$0.456		NA	
Ngatimaru Rd (Delivery)	L	$0.118		NA	

TPM commentary

After the first year of GTAC

- First year of the GTAC necessarily looks back to the VTC and MPOC revenue
- Following data can be included in second and subsequent years:
  - Transmission revenue in each Delivery Zone and Delivery Point
  - Overrun and underruns in each Delivery Zone and Delivery Point
  - Any overflow charges (which we expect to be zero).

- Also take into account any eventual design changes from subsequent GTAC workshops – such as peaking regime charges and changes to nominations for mass market shippers
- Shipper charges and changes relative to GTAC are driven by customer mix. Estimates would change if the customer mix changes.

Shipper	GTAC Revenue as Percentage of MPOC/VTC Revenue	Net % Incentive charges
Shipper A	-6.4%	5%
Shipper B	-3.7%	2%
Shipper C	7.0%	6%
Shipper D	-17.3%	8%
Shipper E	4.5%	7%
Shipper F	-6.1%	7%
Shipper G	-22.5%	8%
Shipper H	0.4%	1%

5.2 ERM Charges

Discussion Objective

Discuss options for ERM fee symmetry and change process

GTAC Reference

8.11

FAP Findings

- Asymmetry of ERM charges may create inefficient incentive to park gas (15, 57)
- ERM charge may not be effective relative to market spread (App D - 173)
- Ability to change ERM fees (21)

Supporting Material

Asymmetry of ERM Charges

Currently GTAC provides different incentives for positive and negative ERM:

GTAC Current (s. 8.14)

- Negative ERM charged at $0.60/GJ
- Positive ERM charged at $0.20/GJ
- FG may change with 5 Business Days' notice up to $1/GJ

Discussion

- Asymmetry of fees creates stronger incentive not to borrow from the pipeline (rather than not to store in the pipeline)
- This aligns with incentive on FG to prevent Critical Contingency events. However, this may not be justified
- Asymmetric fees currently applied under the MPOC due to incentive applied to cash-outs (10% on negative cash-outs and 3% on positive cash-outs)

Key questions:

- Should a lower incentive fee apply to storing gas in the pipeline than borrowing from the pipeline?

First Gas Position:

- FG has the flexibility to change ERM at 5 Business Days' notice should the incentives not be effective
- FG therefore proposes to set symmetrical incentives at $0.50/GJ for the initial period of the GTAC

Effectiveness of ERM in Relation to Market Spread

- GTAC settings may create a point to trade against:
  - This is no worse than the current balancing regime
- Key FAP findings:
  - Clear incentives to avoid ERM charges as they were cumulative until the position was cleared and there was no transfer of title
  - Unnecessary balancing actions (as currently occur) will be avoided

First Gas Position:

- FG has the flexibility to change ERM at 5 Business Days' notice should the incentives not be effective
- We believe this is sufficient to manage the regime

Peaking Regime - Inclusion

- Criterial for inclusion in the Peaking Regime (all criteria must be met):
  - Producers or Users that can inject or take their daily flow in less than 16 hours; and
  - Producers or Users that can rapidly ramp up and down their injection or load within an hour; and
  - Users that have the capacity to take the more than 50% of the capacity of the network at their location or Producers that have the capacity to over or under inject gas at a rate that can adversely affect the linepack and/or pressure in the receipt zone, or pipeline system; and
  - Producers or Users that are in control of their usage or injection
- More detail on this discretion could be provided through the Balancing SOP to determine the details
- Shippers will need to provide information on loads at shared Delivery Points that meet these criteria

Key Questions:
- How should FG manage designating those in the peaking regime?
- What should be published?

First Gas Position:
- FG proposes that assessments of major users are published
- An annual review process should be provided for

Requirements on users in the Peaking Regime

- An AHP must be submitted for all dedicated delivery point or receipt points included in the Peaking Regime for each day
- The TSO will assess the profile and accept unless there is insufficient capacity ***for the day***
- The TSO will regionally curtail flows equally across all shippers in the affected areas. This will include users not subject to the Peaking Regime
- The party submitting an AHP may change an AHP at any ID cycle
- If there are multiple parties delivering to a user in the Peaking Regime then multiple AHPs will need to be submitted
- If the delivery point is under an OBA then the AHP will submitted by the OBA Party

First Gas Position:

- Acceptance of AHPs needs to be considered **over the day** as we are comparing an hourly product with a daily product. It would not necessarily be appropriate to curtail an AHP due to flows in a particular hour

Charging under the Peaking Regime

- The DNC for the day for the delivery point will be the sum of the hourly quantities (HQs)
- Provide for Incentive fees (in GTAC and ICAs) to ensure compliance with the profile:
- If max. flowed **HQ > 1.25 x nominated HQ** (NHQ) of the profile, charge for all the additional capacity used on an hourly basis, i.e. $\sum(\text{flowed HQ-NHQ})_i$ for each HQ-NHQ >0
- This is summed to give the additional capacity used for the day
- DNC is charged at prevailing rate for the delivery point or the average DNC if peaking is at a receipt point the charge is based on the average DNC for the Transmission System
- The charges under the scheme will represent DNC purchased and add to DNC for the day. This avoids double charging for daily and hourly peaking

First Gas Position:

- Triggering the charge based on a 25% tolerance on the hourly quantity is the appropriate charging mechanism. This ensure that users are peaking when they said they were going to peak
- Changes to the ID cycle timing (prior to morning peak) will allow users to better manage these profiles
- Charging based on additional purchase of DNC not only ensures the charge is cost reflective, but also ensures that Daily Overrun fees are not incurred

Planned Maintenance Profiles

- Large receipt and delivery points will need to provide shut down and start up profiles for planned maintenance
- Points requiring a profile will be those where the TSO has a legal requirement to provide these under the CC Regulations
- This profile will be provided for approval by the TSO
- This profile will not be subject to the Peaking Regime and will not link to DNC
- The Interconnected Party will have an obligation to update the TSO on changes to the profile (to be incorporated into ICAs)

First Gas Position:

- Providing profiles on shut down and start up will provide the TSO with valuable information in order to run the system

Unplanned Downtime

- No formal profile will be required
- There will be an obligation to inform the TSO of the time to coming back online
- The Interconnected Party will have an obligation to update the TSO on changes to the profile (to be incorporated into the ICA

First Gas Position:

- These obligations will provide the TSO with valuable information in order to run the system