



GTAC PRELIMINARY ASSESSMENT PAPER (PAP)

STAKEHOLDER PRESENTATION

DATE:

10 December 2018

AUTHOR:

Gas Industry Co



Reason for Preliminary Assessment

- VTC will expire 30 September 2019 (unless extended)
- MPOC can only be replaced, under MPOC s22.16(b) if:
 - “ following an **appropriate consultation** process which includes GIC publishing a **draft determination** and asking each Shipper and Welded Party whether it supports the New Code, GIC has published a **final determination** that **the New Code is materially better than the current terms and conditions for access to and use of gas transmission pipelines** having regard to the objectives in section 43ZN of the Gas Act 1992 and any objectives and outcomes the Minister has set in accordance with section 43ZO of the Gas Act 1992 ”
- First Gas submitted GTAC for assessment on 31 October 2018

Submissions

- Timetable:

- **Submissions on PAP – Friday 18 January 2019**

- But early submissions would be very welcome

- And please use submission template if you can

- Depending on complexity of submissions, a draft FAP could go to GIC's Independent Directors as early as – Thursday 21 February

- **If so, FAP could be issued by end of February 2019**

What this presentation covers

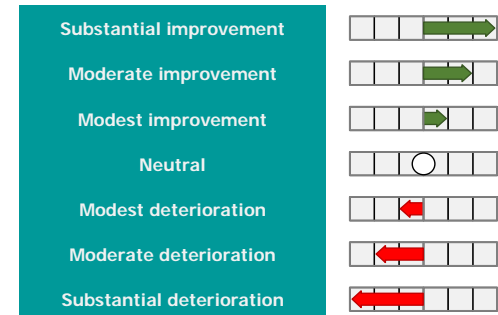
- Layout of the PAP
- Summary of analysis
- Differences from last time

PAP layout

You'll find:

- Glossary and Questions Template at the very end [PAP p199-207](#)
- Assessment methodology essentially unchanged
- The weight of analysis is in:
 - Chapter 3 – Bottom-up analysis [PAP p16-100](#)
 - Appendix B – Supporting Analysis [PAP p126-174](#)

1. Bottom-up analysis
2. Top-down analysis
3. Holistic view

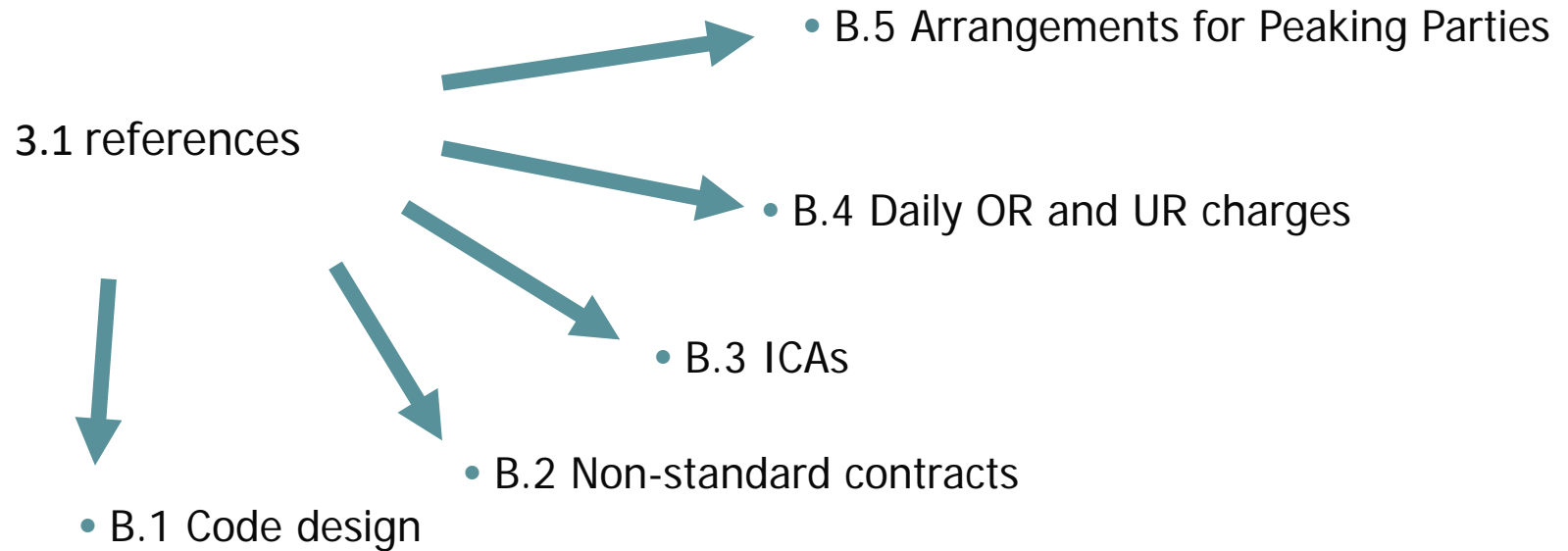


3.1 Gas transmission products PAP p17-34

- Main differences

	GTAC	MPOC	VTC
➔ Coverage	Transportation and interconnection	Transportation and interconnection	Transportation
➔ Core transportation product	Separate nominations at: <ul style="list-style-type: none"> • RPs for Gas receipts • DP Zones and Individual DPs for capacity 	Combined nominations for gas/capacity at PRs and DPs	Annual capacity booking between RPs and DPs
➔ Head of queue for capacity	PRs	AQ	Grandfathering
➔ Back of queue for capacity	IAs	-	IAs
➔ Availability of Non-standard arrangements	Special TSA and ICA terms can be requested	Special ICA terms can be requested	Special TSA terms can be requested
➔ Peaking arrangements	Shippers associated with Peaking Parties subject to peaking charges outside AHP tolerances	All IPs subject to peaking charges for peaking above a RP/DP specific tolerance	Shippers may receive a share of MPOC peaking charges through BPP

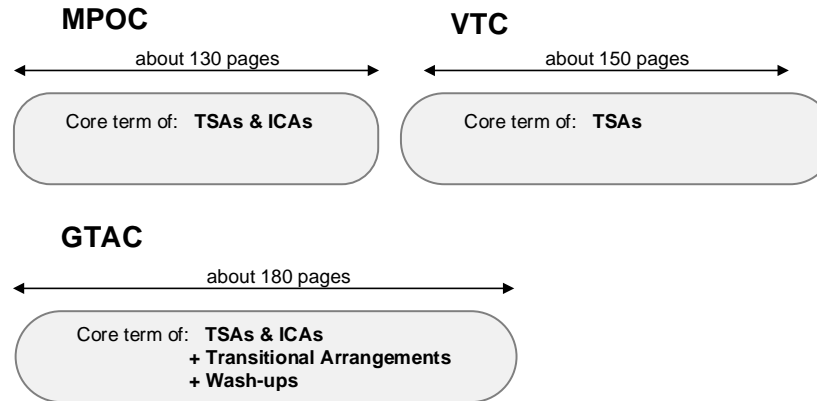
3.1 Gas transmission products PAP p17-34



B.1 Code design PAP p126-132

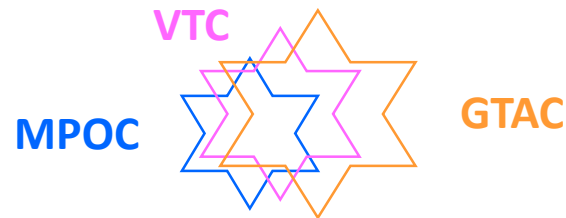
- Architecture

PAP p127 Fig 6



- Footprint

PAP p128-32 Table 26



B.2 Non-standard contracts PAP p132-136

- Current situation, transition, future situation
 - Current situation – 32 non-standard TSAs & 24 non-standard ICAs
 - Table 27 – Non-standard ICAs on Maui pipeline
 - Table 28 – SAs on non-Maui pipelines
- Scope for SAs
 - Table 29 – Comparison of GTAC and VTC arrangements for SAs
- Evaluation of requests for SAs

B.3 ICAs PAP p137-149

- Background
 - ICAs need to “mesh” and stay aligned over time
- GTAC, MPOC and VTC ICA arrangements
 - Describes what each code requires of ICAs
- A closer look at GTAC Sch 5 and Sch 6
 - Table 30 – compares RP and DP essential terms

A: provisions that only appear in Sch5 (RP ICA essential terms)

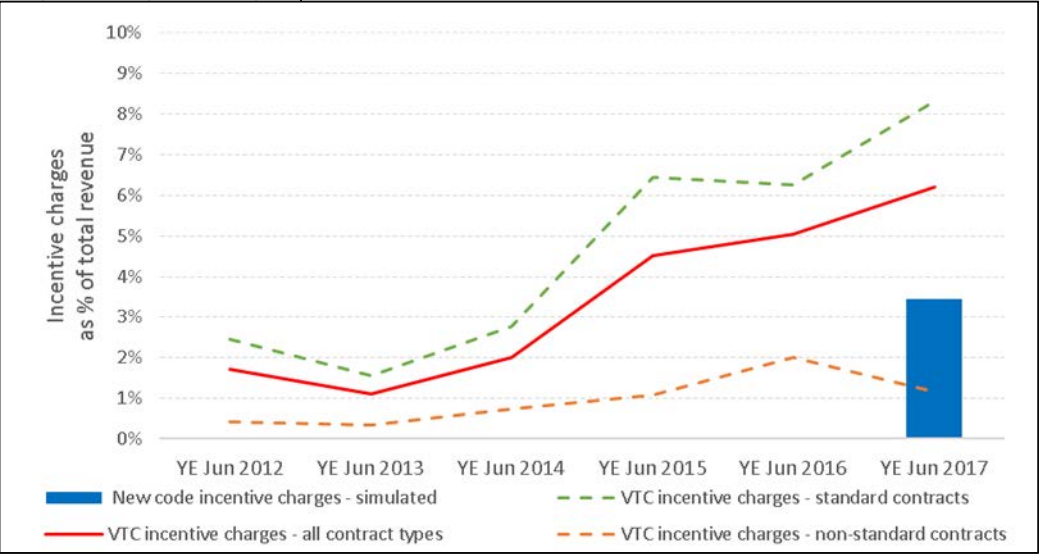
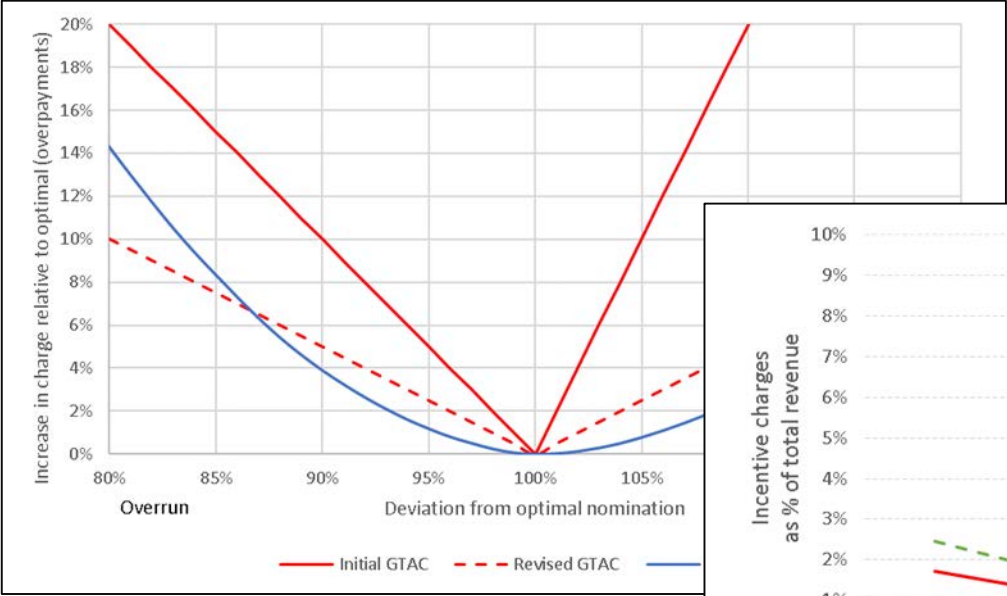
B: provisions that only appear in Sch6 (DP ICA essential terms)

C: provisions that are essentially the same in both Sch5 and Sch6 (except “RP” and “DP” used as appropriate)

D: provisions that are significantly different in Sch 5 and Sch 6

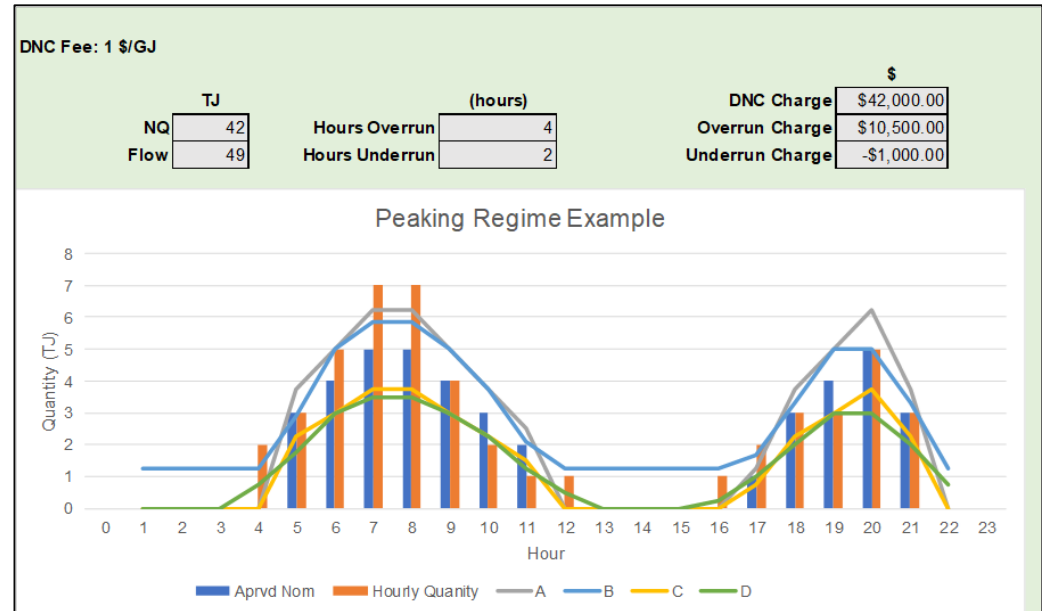
Energy Allocation at a RPs and DPs (Sch 5 ss5.1-5.4 and Sch 6 ss5.1-5.4)	A (only in Sch 5, relating to RPs): <ul style="list-style-type: none">• Gas Transfer Agreement (GTAC Sch 5 ss5.1)
	Gas Transfer Agreements generally only apply at RPs.
	B (only in Sch 6, relating to DPs): <ul style="list-style-type: none">• Downstream Reconciliation Rules (GTAC Sch 6 ss 5.1)• Allocation Agreement (GTAC Sch 6 ss5.2-5.4)
	The DRRs and Allocation Agreements only apply at DPs
	C (essentially the same in Sch5 and Sch 6): n/a D (significantly different in Sch 5 and Sch 6): <ul style="list-style-type: none">• Operational Balancing Agreement. (GTAC Sch 5 ss5.2-5.3 and GTAC Sch 6 ss5.5-5.6)
The differences in relation to OBAs arise because, where an OBA applies at a DPs, the DP will become an Individual DP (GTAC Sch 6 ss5.5(b)). Also, any Allocation Agreement at the DP must comply with the OBA principles (GTAC Sch 6 ss5.6).	

B.4 OR and UR charges PAP p149-153



B.5 Arrangements for Peaking Parties PAP p153-156

- Describes:
 - Who Peaking Parties are
 - How they are identified
 - Nomination of AHPs
 - Approval of AHPs
 - Figure 10 gives example
PAP p156



3.1 Gas transmission products PAP p17-34

- **Gas transmission products – description of arrangements**
 - Summary of GTAC, MPOC and VTC arrangements
- **Gas transmission products – assessment**

Gas transmission products – Efficiency assessment

In relation to Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements):

- Similarly for Reliability, Safety, Environment and Fairness



3.1 Gas transmission products PAP p33-34

Table 6 – Summary of GTAC Gas transmission products assessment

Summary of GTAC Gas transmission products assessment		
	Comment	assessment
Efficiency		
Criterion 1, 2 & 14	The transmission product design should bring substantial benefits in uncongested and congested situations, but these benefits would be modestly moderated by initial transition costs and increased transaction costs.	
Criterion 3	The product design (daily rather than annual capacity bookings) should reduce barriers to competition, bringing moderate competition benefits, particularly for new entrants.	
Criterion 4	Incentives for investment should modestly increase due to the extra information provided by PR auctions to aid investment decisions.	
Criterion 5	Pressure on costs and prices should moderately improve through increased competition. However, the increased nomination workload would modestly increase costs.	
Criterion 8	No noticeable changes to the use of delivery resources would be expected.	
Criterion 9	Moderate improvements to competition in upstream and downstream markets should result from the receipt zone trades attracting no transmission fees, and the downstream retail markets having more flexible transmission products.	
Criterion 10	Weak relevance to transmission products.	-
Criterion 11	Weak relevance to transmission products.	-
Criterion 15	Weak relevance to transmission products.	-
Criterion 16	Frictionless trading in the receipt zone should moderately improve short-term gas trading.	
Criterion 17	Weak relevance to transmission products.	-
Criterion 19	Weak relevance to transmission products.	-
	Overall Efficiency assessment	

	Overall Efficiency assessment	
Reliability		
Criteria 1, 2 & 6	Early notification of congestion should moderately improve reliability.	
Safety		
Criteria 1 & 7	No noticeable change expected.	
Environment		
Criteria 8, 12 & 13	Allowing for demand side management contracts meets the GPS objective (GPS 12(e)) for promoting demand-side management and energy efficiency.	
Fairness		
Criteria 13 & 18	Fairness should be substantially improved by the creation of a single Receipt Zone, the daily nature of the standard product, and the removal of grandfather rights. However, the continuation of some SAs seems modestly unfair on those whose contracts must terminate.	

3.1 Gas Transmission Products PAP p17-34

- Assessment mostly +ve, including because:
 - Flexibility to nominate each day rather than once a year
 - Flexibility to nominate for gas receipts and gas deliveries separately
 - Frictionless trading in Receipt Zone
 - Simplicity of not having to manage both daily MPOC noms and annual VTC reservations
- A little –ve, including because:
 - Increased nominations workload for some shippers
 - Some contracts continue (non-Maui pipeline SAs & ICAs) while others must terminate (Maui pipeline TSAs and ICAs)

3.2 Pricing PAP p34-49

- Assessment doesn't consider the specific level of prices because:
 - Price-quality regime applies now and in future
 - First Gas can annually amend charges under all codes
- Instead, prices structures are examined for each category in Table 7:
 - Gas Transmission Charges
 - Peaking Charges
 - Congestion Management Charges
 - Balancing Charges
 - Other Charges

3.2 Pricing – Table 7 (1 of 3) PAP p37-38



Service	GTAC charges	MPOC/VTC charges
Gas Transmission Charges		
Transport (standard)	DNC charge	MPOC: Tariffs 1 & 2 VTC: Capacity Reservation Fee Throughput Fee
Using more than “booked” pipeline capacity	Daily OR charge	MPOC: N.A VTC: Authorised OR charge, and/or Unauthorised OR charge, or Authorisation charge
Using less than “booked” pipeline capacity	Daily UR charge	MPOC: N.A VTC: N.A
Auto-Nomination	Auto-Nomination charge	MPOC: N.A VTC: N.A
Transport (non-standard)	As per relevant bilateral agreement	MPOC: N.A VTC: As per relevant bilateral agreement

3.2 Pricing – Table 7 (2 of 3) PAP p37-38



Service	GTAC charges	MPOC/VTC charges
Peaking Charges		
Exceeding within-day flex limit	Peaking Charge - Hourly OR charge Only for Peaking Parties	MPOC: Peaking charge VTC: Allocation from BPP
Using less than within-day flex limit	Peaking Charge - Hourly UR Charge Only for Peaking Parties	MPOC: N.A VTC: N.A
Congestion Management Charges		
Procuring interruptible capacity	Congestion Management Charge	MPOC: N.A VTC: Discount to standard rates
Obtaining priority right to standard transport service	PR Charge Receipts of PR Charges in any month are rebated among all Shippers in the subsequent month	MPOC: AQ Fee VTC: N.A

3.2 Pricing – Table 7 (3 of 3) PAP p37-38

Service	GTAC charges	MPOC/VTC charges
Balancing Charges		
➔ Injecting less (or more) gas from the system than is withdrawn	Cash-outs when a balancing action is taken ERM Charge	MPOC: Daily cash-outs VTC: Allocation from BPP
Other Charges		
➔ Recalculation due to Shipper providing incorrect information	N.A	MPOC: N.A VTC: Corrections charge (never used)
➔ Exceeding design limit of DP	Over-flow Charge	MPOC: N.A VTC: N.A
Credits		
➔ Treatment of any over/under-recoveries	Primary transport charges adjusted in a later year for any over/under-recovery relative to Part 4 cap	MPOC & VTC: Primary transport charges adjusted in a later year for any over/under-recovery relative to Part 4 cap

3.2 Pricing PAP p34-49

- Assessment mostly +ve, including because:
 - DNC Charges would not discourage variable day-to-day or seasonal demand
 - Directing IA costs to the beneficiaries would be efficient
 - GTAC OR/UR Charges increase during congestion, providing stronger incentives to flow to nominations, and more accurate information to help First Gas manage the system
 - ERM Charges provides an incentive on shippers to trade gas to manage RM, rather than First Gas assuming responsibility via automatic daily cash-outs
 - One set of prices across all pipelines
- Assessment a little -ve, including because:
 - Increased nominations workload

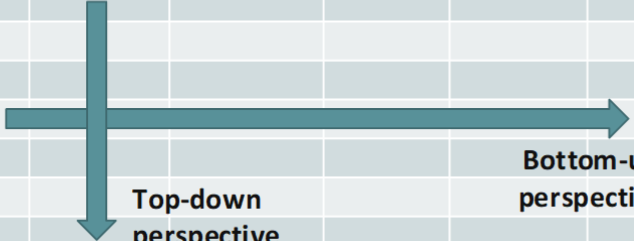
Components “more significant to the overall assessment”

- Top-down analysis identifies some Components as “more significant”:

- Gas transmission products
- Pricing
- Balancing
- Gas quality and odourisation
- Liabilities

PAP 4.1 p101

- This presentation focuses on those. We’ve looked at Products and Prices, so next up is Balancing



	Efficiency	Reliability	Safety	Environment	Fairness
Gas Transmission Products					
...					
Prices					
...					
...					
...					
Congestion Management					

3.5 Balancing PAP p57-68

- Main differences

	GTAC	MPOC	VTC
➔ Basic concept	Shippers and OBA Parties and First Gas encouraged to manage RM by: <ul style="list-style-type: none"> • ERM Charge • Cash-out when First Gas takes a balancing action 	IPs encouraged to manage Excess Imbalance by: <ul style="list-style-type: none"> • Automatic daily cash-out 	Shippers and First Gas encouraged to manage RM by: <ul style="list-style-type: none"> • BPP allocation of MPOC cash-outs
➔ Cash-out prices	<ul style="list-style-type: none"> • \$0.50/GJ ERM charge (may be increased to \$1/GJ) • Cash-out at market price 	<ul style="list-style-type: none"> • Cash-out at premium/discount to market buy/sell prices or (commonly) at calculated price 	<ul style="list-style-type: none"> • Cash-outs pass through from MPOC
➔ Tolerances	<ul style="list-style-type: none"> • Shippers and OBA Parties get allocation of Overall Tolerance 	<ul style="list-style-type: none"> • RP and DP specific tolerances (Basically Sch 7 ROILs times an a multiplier "m", normally 1, but more when First Gas deems necessary) 	<ul style="list-style-type: none"> • Effectively an allocation of the MPOC tolerance

3.5 Balancing PAP p57-68

3.5 references



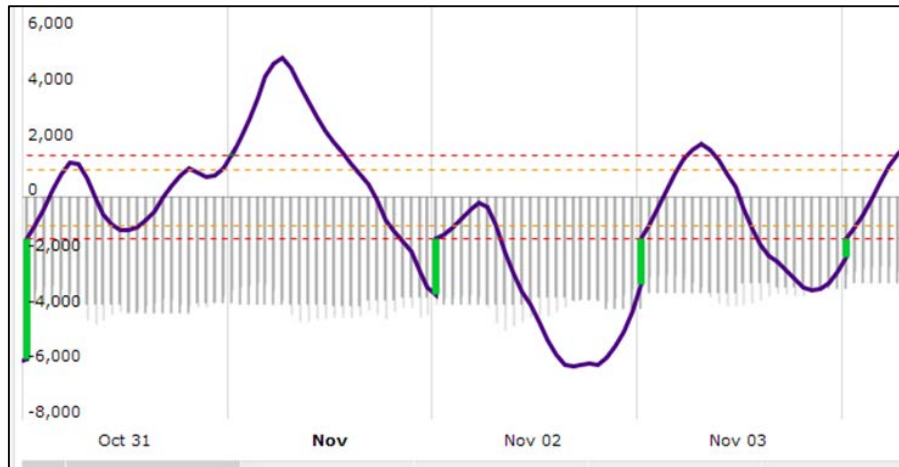
- B.8 Target Taranaki Pressure (TTP)



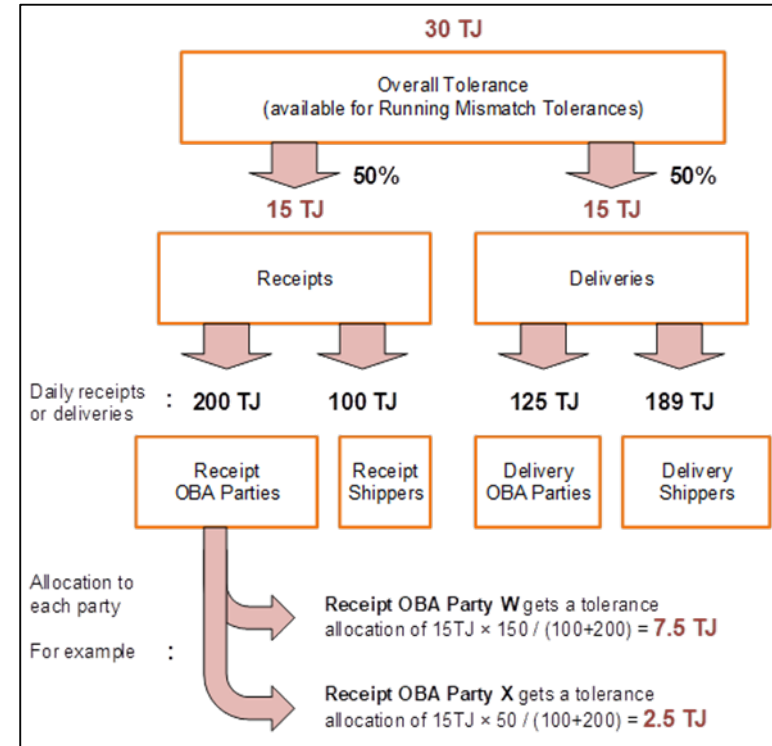
- B.6 Balancing tolerances

B.6 Balancing tolerances PAP p157-160

MPOC



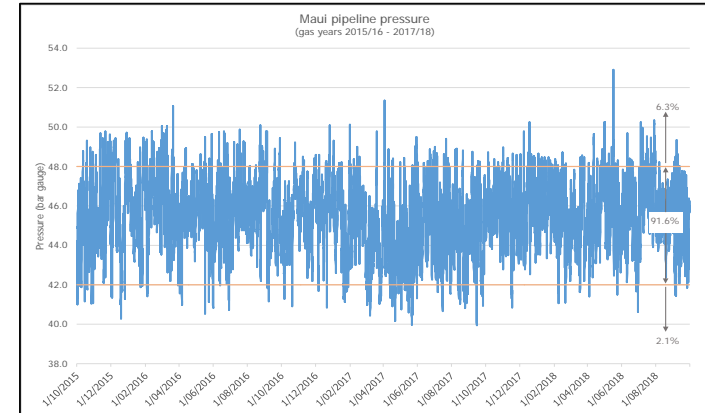
GTAC



B.8 Target Taranaki Pressure (TTP) PAP p165-169

- MPOC and GTAC both:
 - fix TTP range at 42 to 48 bar gauge
 - require First Gas to use reasonable endeavours to manage TTP as low as practical within range
- MPOC and GTAC drafting is unclear:
 - both refer to “managing” and/or “maintaining” TTP
 - arguably this means managing or maintaining actual pressures rather than the target pressure
- We consider there would be no noticeable change to reliability

PAP 3.5 p101



3.5 Balancing PAP p57-68

- Assessment all +ve, including because:
 - primary balancing improved and secondary balancing reduced by:
 - removal of automatic end-of-day cash-out and the introduction of ERM Charges
 - move to system-wide balancing
 - De-linking receipt and capacity nominations would allow more control of RM positions

3.8 Gas quality and odourisation PAP p84-88

- Main differences

	GTAC	MPOC	VTC
Odorant spot checks	Spot checks done on reasonable Shipper request	No odorised gas in Maui pipeline	Spot checks done from time to time
Change of odourisation status of a pipeline	First Gas will continue to odourise gas in the pipelines that are currently odourised. First Gas can cease odourisation of gas in a pipeline or at a DP if all Shippers agree, or by providing 18 months' notice	-	First Gas will not odourise gas in an unodorised pipeline, or cease odourisation in an odorised pipeline, unless each Shipper using the pipeline agrees – although First Gas can cease odourisation of a pipeline with 12 months' notice

3.5 Gas quality and odourisation PAP p84-88

- Assessment all +ve, including because:
 - Improved transparency from publication of:
 - information on gas specification events or issues
 - summary of information obtained from a RP IP on the facilities, systems procedures and monitoring in place to manage gas quality
 - A Shipper can call for spot checks of odorant levels

PAP p89-100: 3.9 Governance analysis - Liabilities

3.9 references



- B.7 Liabilities

3.9 Governance analysis PAP p89-100

- Assessment positive, including because:
 - Code change process improved – less likely to favour incumbent users, both Shippers and IPs can propose changes, FG veto more clearly prescribed, clarification of Gas Industry Co's assessment role.
 - Liability arrangements do not seem to have a negative impact in terms of the allocation of risk.
 - Term of the GTAC does not raise material concerns.
 - Absence of detailed ring-fencing provisions not a concern at this point in time as First Gas is not vertically integrated.

B.7 Liabilities PAP p161-165

- Assessment neutral, including because:
 - Liability arrangements in relation to non-specification gas closely resemble the arrangements in the MPOC and the VTC (back-to-back indemnity).
 - First Gas bears the risk in relation to non-specification gas injected under existing (VTC) RP ICAs.
 - Removal of the Incentives Pool and BPP does not seem significant as these pools have not been used.
 - Other differences between the GTAC and the MPOC/VTC do not seem to materially alter the balance of risk between First Gas, Shippers and IPs.

5 Overall assessment (1 of 6) PAP p113-124

- Chapter 5 considers
 - Results of top-down and bottom-up analysis
 - Associated arrangements
 - Coverage
 - Overall costs and benefits

5 Overall assessment (2 of 6) PAP p113-124

- Cut down Table 22, looking only at “more significant” components

Efficiency	Reliability	Safety	Environment	Fairness	All criteria
Gas transmission products (a component more significant to the overall assessment)					
Pricing (a component more significant to the overall assessment)					
		-			
Balancing (a component more significant to the overall assessment)					
		-			
Gas quality and <u>odorisation</u> (a component more significant to the overall assessment)					
Liabilities (a component more significant to the overall assessment)					
Overall					

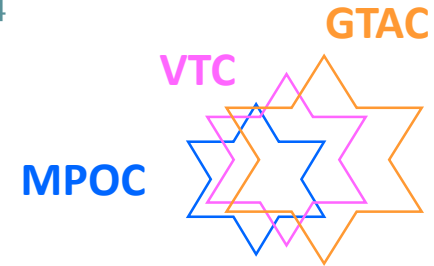
5 Overall assessment (3 of 6) PAP p113-124

- Associated arrangements... some changes... but no significant concerns
 - Gas transmission pricing methodology
 - Like the VTC, it would be outside the code, but First Gas will continue to report on whether it meets the Commerce Commission's pricing principles
 - However, we note that there would be no cost allocation prescriptions in the GTAC (such as the MPOC "pricing principles")
 - PR auction rules
 - GTAC requires First Gas to develop auction terms and conditions in consultation with Shippers, and subject to GIC approval, we believe this provides adequate safeguards against adverse outcomes
 - Wash-up provisions
 - GTAC contains algorithms for wash-ups of RM, Balancing Gas allocation and ERM... more than is in the current codes

5 Overall assessment (4 of 6) PAP p113-124

- Associated arrangements (continued)
 - Standard Operating Procedures (SOPs)
 - No non-Maui pipeline SOPs currently published
 - Process for changing SOPs in the GTAC is arguably superior because it provides for explicit interaction with pipeline users
 - Park and Loan service provisions
 - We treat the service as neutral because it is not fully defined and may not be offered

5 Overall assessment (5 of 6) PAP p113-124



- MPOC, VTC and GTAC coverage (footprint)
 - Table 26 in section B.1 of Appendix B identifies where footprints do not overlap and Section 5.3 considers them
 - No matters of significance emerge. For example
 - Treatment of interconnection is on a par with MPOC and more comprehensive and transparent than non-Maui pipeline interconnection arrangements
 - Incentives Pool not used in practice, so its absence is not material
 - Congestion management is not expressly addressed by MPOC or VTC, and has been considered elsewhere in the analysis

5 Overall assessment (6 of 6) PAP p113-124

Costs	Benefits
<ul style="list-style-type: none">• Initial set-up costs	<ul style="list-style-type: none">• Unifying and standardising transmission products and processes
<ul style="list-style-type: none">• Slower response to some adverse events	<ul style="list-style-type: none">• Adopting DNC as the primary transport product
<ul style="list-style-type: none">• PR auction costs	<ul style="list-style-type: none">• Adopting a simple, system-wide approach to gas balancing
<ul style="list-style-type: none">• Increased transaction costs	<ul style="list-style-type: none">• Removing grandfathering provisions that can impede competition
	<ul style="list-style-type: none">• Facilitating the trading of gas via a single receipt zone
	<ul style="list-style-type: none">• Widening and improving the tools available for management of pipeline congestion
	<ul style="list-style-type: none">• Simplifying and strengthening the arrangements to manage curtailments

- Overall conclusion: GTAC is materially better

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Appendix D Response to the FAP1 “red arrows” PAP p181-190

Aspect Criteria under consideration		Assessment	Reason for red arrow
Gas transmission products			
	Efficiency: Criteria 1, 2 and 14 (delivering gas efficiently and facilitating ongoing supply by providing access and competitive market arrangements)		Transition to the GTAC regime would involve costs for all participants including one-off set-up costs (renegotiating contracts, introducing new procedure and systems etc), and on-going increased transaction costs, primarily related to increased nominations.
	Efficiency: Criterion 5 (sustained downward pressure on costs and prices)		Increased nomination workload costs, particularly on Shippers.
1.	GTAC design modifications – transition and nomination costs <u>Changed position</u> One-off transition costs are inherent in any change, and to a large extent unavoidable. However, in relation to the cost of on-going nominations, First Gas has added provisions aimed at simplifying nominations to mass-market customers (allocation group 4 and 6) (GTAC s4.22-4.24). In essence, any Shippers to mass-market customers can choose to have First Gas make nominations on behalf of the		



Appendix E Comparison of PAP and FAP1

PAP p191-198

	Efficiency	Reliability	Safety	Environment	Fairness	All criteria
Pricing (a component more significant to the overall assessment)						
PAP			-			
FAP1			-			
	Red reduced: <ul style="list-style-type: none"> • OR/UR charges reduced, made symetric and rebate scheme abandoned • ERM Charges made symetric 				Red reduced: <ul style="list-style-type: none"> • OR/UR charges reduced, made symetric and rebate scheme abandoned • Hourly OR/UR Charges only to apply to Peaking Parties 	
Energy quantity determination						
PAP			-	-		
FAP1			-	-		
		Red reduced: <ul style="list-style-type: none"> • GTAC allows only 2 further years grandfathering of legacy metering arrangements • the 9 month interval before special tests reduced to 3 months, as in the VTC 			Green increased: <ul style="list-style-type: none"> • Certainty around bringing legacy metering arrangements to an end is more fair on other system users 	

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