Minutes

Day Ahead Auction Project Team Meeting No. 7

Date/Time:	Wednesday 14 June 2017, 10.00 am | Thursday 15 June 2017, 9:00 am
Location:	Level 10, 10 Eagle Street, Brisbane

Attendees:	*Project team*	John Jamieson, APA
		Diedre McEntee, APLNG
		Leon Devaney, Central Petroleum
		Andrew O'Farrell, Origin
		Matt Sherwell, Santos^
		Erin Bledsoe, Shell
		Kevin Ly Snowy Hydro (Day 1)
		Nicholas Pope, specialist technical advisor
	Guests	Andrew Zancanaro, Jemena (Day 1)
	GMRG	Nicole Dodd, analyst
		Katherine Lowe, GMRG senior technical advisor
		Sandra Gamble, GMRG facilitator
		^by telephone (Day 1)

Apologies:	Jeff Cooke, SEAGas
	Tom Walker, specialist technical advisor
	Kevin Ly, Snowy Hydro (Day 2)
Purpose:	Auction Product Design
Reference:	DAA.7.20170614

	Agenda Item	Discussion	Actions	Decisions / Views
1	**Recap on previous meeting**	The team: • Reflected the last meeting had involved a good discussion with respectful debate. • Reflected progress had been made on forming a view that the firm product is less likely to be auctioned than the interruptible given the requirement to accommodate renomination rights, notwithstanding that the team is yet to discuss intermediary options; the team discussed whether this was adequately reflected in the minutes, with a final position to accept as is. • Discussed whether the renomination rights that are to be accommodated are limited to those that are expressly in the contract, or including those that are understood to be a right through custom and practice. • Noted pipeline operators may receive hundreds of intraday nominations in a day. • Discussed the purpose of the auction to incentivise trading in the secondary market. • Reflected on Veronika Nemes' presentation in the previous meeting, including that the value of the product is compromised when it is uncertain, design can avoid possibilities of gaming, better to know how much is in the auction before participating, and that the team was encourage to find a middle ground. The minutes of the previous meeting were accepted. The team discussed the upcoming procurement process for the GMRG to engage an expert advisor for the auction design. The team noted the progress that had been made by the other project teams.	GMRG – Complete analysis through using Natural Gas Services Bulletin Board data comparing the contracted quantities per pipeline against the nominated and actual flows. This could be used to indicate the chances of a Day Ahead Auction product being bumped.	
2	**Transportation products to be sold through the auction**	The team recapped the product options that are at the two ends of the spectrum, that had been discussed last week, noting the following features of each: • The firm product:		

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		○ The buyer of the auction product would reserve firm capacity, and therefore have priority over any renominations. ○ The buyer would expect to be able to flow if they make a nomination. ○ If the buyer did not nominate to the full capacity they had gained through the auction, there was still a question as to the right and priority of their ability to renominate intraday. ○ The product may be superior to that bought through the secondary trading market if the ability to renominate exists, which may not incentivise trading on the secondary platform. ○ This may impact the "donor's" business model as they seek to retain the value of their capacity rights – nominate later, or have to pay additional costs for an as available product. ○ This may also impact the early signals the pipeline operator receives as to how to operate their pipeline. ○ Firm capacity holder may reduce their firm holding and rely on the auction and as-available products. ○ Under the National Electricity Rules (NER), power generators would have to bid as unavailable, as they would not have certainty of gas availability (see further discussion regarding the interaction of the National Electricity Market (NEM) with the pipeline capacity market below). ○ Market Operator Service (MOS) bids in the Short Term Trading Market (STTM) would also be impacted, as well as intraday changes in the Declared Wholesale Gas Market (DWGM) in Victoria. • The fully-interruptible product ○ "Donor" retains ability to renominate up to the firm component, and the buyer of the auction would be curtailed in this instance. ○ Buyers of the auction product that are curtailed		

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		through renomination by a firm shipper would have the option to buy an as-available product, at the rates specified in their operational GTA, if there is spare uncontracted capacity on the pipeline. The price of the as available service could place a cap on the auction price. ○ There are options to increase the firmness of this product, depending on how renomination requests from different shippers are treated. Additionally the treatment of spare capacity may impact the firmness of this product. ○ The interruptible product was further discussed, as shown below. The team discussed the interaction of the capacity trading market, and the new Peak Supply Guarantee, with the NEM, and • Discussed the required certainty of gas availability for a shipper with a gas powered generator (GPG) to bid into the NEM under good faith obligations in the NER, and the impact on utilisation of the pipelines. • Acknowledged that GPG are not the only customers that have a requirement to renominate up or down, and industrials should be considered in the impact of the auction product too. • Discussed the appropriate approach of integrating the design of the capacity markets with the requirements in the NEM, and the priority each should be afforded. • Outlined the timeline and information flows for GPG for the NEM and pipeline operation, considering how these may change with the new Peak Supply Guarantee arrangements (that are still under development) and the interplay with the auction. This is outlined in Appendix A. • The team found that, if an auction is introduced with the "firm" product, a GPG shipper that holds primary firm capacity up until the auction,		

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		and does not nominate the full amount, will no longer be able to bid generation into the NEM beyond the amount it can supply with its nominated capacity. • Discussed how GPG may have contracted for capacity utilisation, and that this will depend on each shipper's business model. • Considered options for managing the risk for those that need renomination rights for industrial operational requirements or for participation in the NEM, including other flexibility options like storage (incl. storage on laterals), and drawing on linepack. • The team considered if there would be value in further analysing NEM data to determine the likelihood of a GPG renominating, but has decided to focus on analysing the Natural Gas Services Bulletin Board data first (see Action in Agenda Item 1). The team discussed the possible options for the price mechanism of the auction as a clearing price or pay as bid, and: • Discussed the economic efficiency of each, and the interplay with the information those that are bidding have (for example, if they know how much capacity is in the auction or not). • Discussed that, if there was curtailment on a day, and a clearing price was the pricing mechanism, then the auction buyers could be curtailed according to the bid stack, like in the DWGM. The team discussed how the interruptible auction product could be made more valuable for the buyer to introduce a credible incentive to trade in the secondary market, including: • Decreasing the uncertainty of being bumped if an auction purchaser has nominated against their purchased capacity. • Reduce the impact of being bumped, or options to manage the risk of being bumped.	GMRG to add to the parking lot: • What if the hub services for between pipes are not available, and so the combinatorial interruptible product is not of value. • Accessibility of the information requirements discussed, given most of the information is available already, and other information will depend on the	

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		• Reduce the probability of being bumped, or reduce the likelihood of being bumped. These ideas are detailed in Appendix B. The team discussed the appropriate prioritisation of scheduling, and intraday nominations, of the various services available on a pipeline: • Firm products • As available products (AA) • Interruptible products (Int) – including authorised overruns. • The auction products • Renominations of each. These were considered via an array of different scenarios, as detailed in the table in Appendix C. These scenarios were considered in the context that the timeline for the auction would be as follows: 1. Shippers submit nominations to pipeline operator 2. Pipeline operator runs schedule based on nominations, and determines capacity available for auction 3. Auction is run 4. Auction buyers nominate to pipeline operator 5. Intraday nominations may be made on any service. In considering these scenarios, the team discussed: • In practice as available services tend to be scheduled, but these could be limited for firm renominations depending on the contract details. • The risk of no one contracting firm capacity on the pipeline if the auction product is too valuable, which would limit pipeline investment. However, this would limit the amount of auction product available. • The value of the auction product compared to the product sold in the secondary market, and incentivising both buyers and sellers to trade in the secondary market. • Contracts will likely have to be opened to insert the auction product within the prioritisation order, rather than at the end, and this may require a law change. • Interaction with flexibility in receipt and delivery points. • The difference between the property right holder trading	reporting and monitoring framework. • Options to reduce the probability of being bumped until the details of the Peak Supply Guarantee are confirmed. • The timing of the auction to be discussed with the auction mechanism. • Preserving system security. • Investment incentives	

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		their firm rights in the secondary market and these being released in the auction, and how this interacts with renomination rights of the property holder. The team considered if the option that would be the smoothest to implement, that is, inserting the auction product at the end of the prioritisation stack to avoid re-opening contracts, could be adopted for the initial set up of the auction, and then reassessed at a later stage. There were concerns that it may be harder to change later. The team discussed the appropriate evaluation features for the auction product as: • Quantity available for auction • Prioritisation • Speed to market (implementation) - change to pipeliner's scheduling logic, change to primary GTAs • Disruption – change to property rights, change to pipeliner's scheduling logic • Cost – change to pipeliner's scheduling logic, change to primary GTAs • More effective incentive for buyers and sellers to trade before the auction to promote liquidity in the secondary market and economic efficiency. • Sufficient risk management – opportunity for a financial product, options for shippers if get bumped when using auction product • Preservation of system security. The team outlined a cost/benefit assessment criteria based on these features to use for assessing the options for the auction product, as detailed in Appendix D. The team has not yet assessed each option to be able to have time to consider each, and the assessment criteria, further first. The team assessed the other options the AEMC put forward to accommodate renomination rights, and considered for: • Withholding some capacity ○ Will reduce capacity available to auction.	GMRG – discuss with the AEMC the extent of the contracted provisions, and what their intention was as to where the as available and interruptible is to sit (in the contracted but unnominated, or in	

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		○ Discussed the European approach of locking in particular percentages, and considered this complex as this would need to vary across different pipelines. ○ There is potential for error in estimating quantity. ○ Can have a firm auction product. • Interruptible capacity ○ This is what the team has been analysing (see Appendix C). • Some firm, some interruptible ○ Similar to, but better than, withholding some capacity, given this capacity does get released as interruptible. ○ Information requirements, as detailed in Appendix B, may help auction buyers understand firmness of interruptible anyway. ○ Complex to determine quantity for each of firm and interruptible. ○ This accommodates some, but not all, firm renominations. ○ This option could be considered further. • More frequent auctions ○ Like the DWGM in Victoria ○ This doesn't solve the problem, and could make it worse, depending on the products. ○ Intraday trading could evolve anyway. • Auction firm capacity ○ Does not accommodate firm renomination rights (contracted or considered firm by custom and practice) The team discussed the potential for shippers to over-nominate to the pipeline operator to avoid capacity being released to the auction, and then renominate this down. It was noted that nominations were made to the pipeline operator in good faith under contractual obligations, and the team discussed if the AER would need greater oversight of this to effectively monitor the auction.	spare capacity if available).	
3	**Break**	N/A	N/A	N/A
4	**Product to be sold through the auction**	See Agenda Item 2. Note, this discussion was further continued on Day 2 – all related discussion		

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	(continued discussion)	has been minuted in Agenda Item 2.		
5	**Close (Day 1)**	N/A	N/A	N/A
6	**Hub service products to be sold through the auction**	John Jamieson presented a diagram of the Wallumbilla compound to clarify its components and operation. The team: • Clarified that a hub service is essentially buying a right to move gas from a low pressure point to a high pressure point (physically, compression) or vice versa (redirection). • Noted the Wallumbilla compound currently has more compression capacity than pipeline capacity. • Noted pipeline capacity is sold separately to compression capacity. • Noted compression capacity depends on the pressure of each side, the particular configuration of the incoming pipelines, and the redundancy requirements, and thus can be difficult to forecast ahead of time, and is beyond the control of the hub operator. The minimum guaranteed amount can be less than half the maximum compression capacity. • Noted the firm compression capacity is currently all contracted, and interruptible capacity is sold additionally. Redirection services are only sold on an interruptible basis, or are bundled into the Roma to Brisbane eastern haul service. • Discussed the compression banks of 3 compressors tend to have 2 sold for firm, and 1 back up. • Noted APA uses deemed gas at either side to honour nominations, and operationally may compress more or less than shippers have nominated.	GMRG – Send around APA's diagrams of the Wallumbilla and Moomba hubs. GMRG – add to the parking lot to discuss what happens if one of the links of a combinatorial product is interrupted.	The group came to a view that while the quantity of contracted but unnominated hub services could be small, it can still be put into the auction, as per the required outcome from the AEMC's review.
7	**Scenario testing**	The team tested scenarios throughout discussing the product to be auctioned, and this discussion has been minuted in Agenda Item 2. The majority of this discussion is captured in Appendix C.		
8	**Break**	N/A	N/A	N/A
9	**Scenario testing**	See Agenda Item 7.		

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	(continued discussion)			
10	**Project team road map**	The team noted the GMRG will progress procuring an expert on auction design. The team decided to move their next meeting scheduled in Sydney for Wednesday 28 June to Thursday 29 June.	All – send schedule of leave to GMRG admin.	
11	**Close**	N/A	N/A	N/A
12	**Next meetings**	The next meeting is to be a face-to-face meeting on Thursday 29 July 2017, 10am-3pm in Sydney.		

Appendix A – Interaction with the NEM

Information flows	D-7	D-4	D-1	Gas Day (D)
Weather forecast	Uncertain weather forecast (indicating electricity demand and renewable generators output). This is becoming increasingly volatile with increasing intermittent generators.		Weather forecast improves in certainty as get closer to the day.	
NEM process	Generators indicate availability for the Projected Assessment of System Adequacy (PASA), which indicates supply and demand balance. Proposed – extended dispatch as part of the Peak Supply Guarantee.	Proposed industry conference as part of the Peak Supply Guarantee if a lack of reserve (LOR) condition has been forecast in the NEM, to assess gas supplies for generation. If unable to reduce the LOR, there may be jurisdictional intervention.	Pre-dispatch at 12noon Generators can only bid in NEM in good faith, ie. for GPG only if they can commit they do have gas available. The bidding process for generators will depend on their own business model.	Dispatch
GPG actions in gas industry	May provide forecast nominations to pipeline operator		Nominations made to pipeline operator (made in good faith by contract provisions)	Renominate to pipeline operators if now (or no longer) dispatched in NEM.

Appendix B – How can the interruptible product be improved?

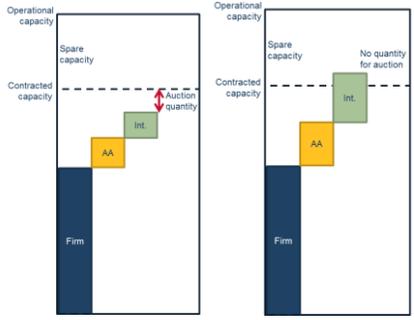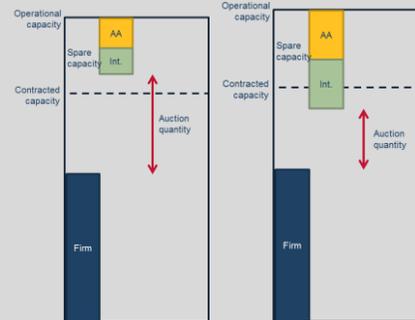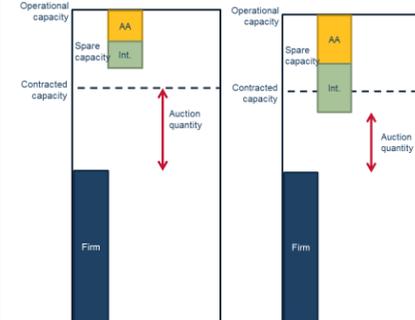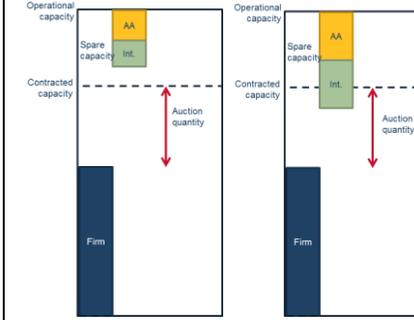| Category	Improvements
Decreasing the uncertainty of being bumped if an auction purchaser has nominated against their secured capacity	The team considered that the following information would be useful in assessing the likelihood that the auction product would be bumped:
	Natural Gas Services Bulletin Board data –
	- Forecast flows (existing), - actual flows (existing), - historical information (existing), - large users actual flows (Phase 2)*, - LNG flows (existing) - Material changes to capacity and flow intraday (Phase 1)*
	Weather reports, electricity forecasts including short term and medium term PASA.
	After nominations – the quantity available for auction
	Provisional and intraday schedules
	Charges for services (GTAs)
	STTM and DWGM demand
	Actual interruptions of the product historically**
Reduce the impact of being bumped, or options to manage the risk of being bumped.	Note, the market already manages this when they purchase interruptible products, for example through contractual arrangements, or other flexible options.
	The auction buyers will only be required to pay the capacity charge if they are not interrupted.
	If the pipeline has spare capacity, auction buyers will have the option to buy an as available service if they are bumped.
	The team considered various scheduling and intraday options for the prioritisation of different products, as detailed in Appendix C, with a view as to how this could improve the interruptible product, and how this would interact with existing rights.
Reduce the probability of being bumped, or reduce the likelihood of being bumped	The changing market, including with the incoming Peak Supply Guarantee, may impact this probability. The team has deferred consideration of options to reduce the probability of being bumped until the details of this have been confirmed.

*The Natural Gas Services Bulletin Board has incoming changes that were recommended as part of the AEMC's East Coast Gas Review. These will come in two phases, depending on if a law change is required before the changed can be effected.

**This would not be available until the product is in effect. This will need to be considered in the reporting framework. The AER is likely to require access to this information as part of their monitoring role.

# Appendix C – Prioritisation of services in scheduling and in intraday nominations.
Amount of auction quantity released

The AEMC recommended that pipeline operators would only be required to release Contracted-But-Unnominated firm capacity to the auction.

The following table shows various options the team considered for determining the capacity available for the auction.

	Contracted capacity	Operational capacity (inconsistent with the AEMC's recommendation)	Contracted but unnominated capacity	Contracted but unominated capacity by firm shippers
Description	The auction quantity released is limited to the contracted capacity left after nominations made against firm, as available and interruptible services have been scheduled.	The auction quantity released is the rest of the operational capacity once the nominations against firm, as available, and interruptible services have been scheduled. As available and interruptible services would be scheduled from top down (ie, fill up spare capacity first if available). This model is inconsistent with the AEMC's recommendations given the auction quantity can exceed the contracted capacity level	The auction quantity released is the contracted capacity that has not been nominated against firm, as available and interruptible services. As available and interruptible services are scheduled from the top down.	The auction quantity released is the contracted capacity that has not been nominated against a firm service. As available and interruptible services are scheduled from the top down. Interruptible capacity can be scheduled but interrupted if auction quantity is bought and nominated (i.e. auction has higher priority than interruptible).
Diagram				
System changes required	None other than specifying contracted firm quantity – this is how (APA's) current scheduling engine works.	System change to schedule as available and interruptible from the top down, instead of bottom up.	System change to schedule as available and interruptible from the top down, instead of bottom up.	Greater system change. This may not be feasible if the as available nomination exceeds the spare capacity, given these are treated as firm once nominated. Long term, if as available and interruptible products are phased out, could be feasible.

*Note, all scenarios have been shown with spare capacity available in the pipeline. If the pipeline was fully contracted, there would be no spare capacity, As such, this space would reduce to zero.

In the options where spare capacity remains available, the pipeline operator would have the option of releasing this capacity to the auction additionally. This capacity could be auctioned at a higher price. Given this is not contracted but unnominated capacity, it is not required to be in the auction, and is released at the pipeline operator's discretion.
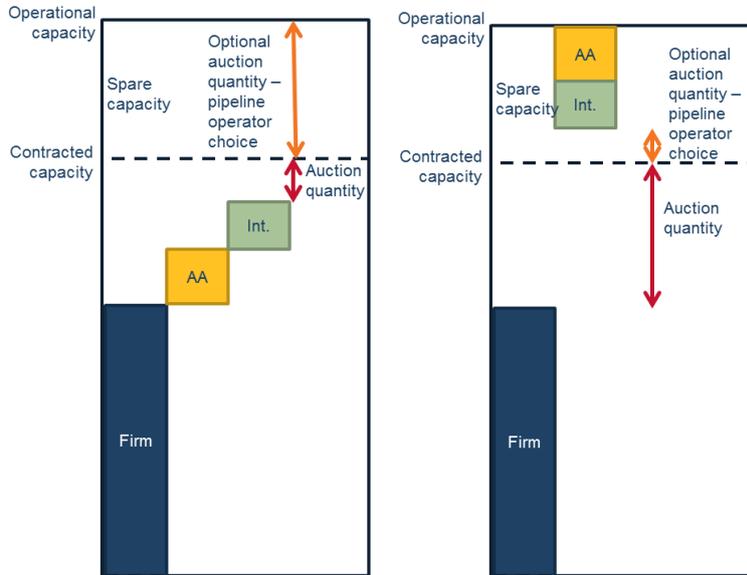
A variation on the "contracted but unnominated model" option was also raised by a participant in the project team, but has not yet been considered in depth, as shown below. The capacity to be released to the auction would be all firm-contracted but unnominated, regardless of as available or interruptible nominations, so long as there was spare capacity available in the pipeline. This differs from the "contracted but unnominated model" as capacity remains scheduled from the bottom up.
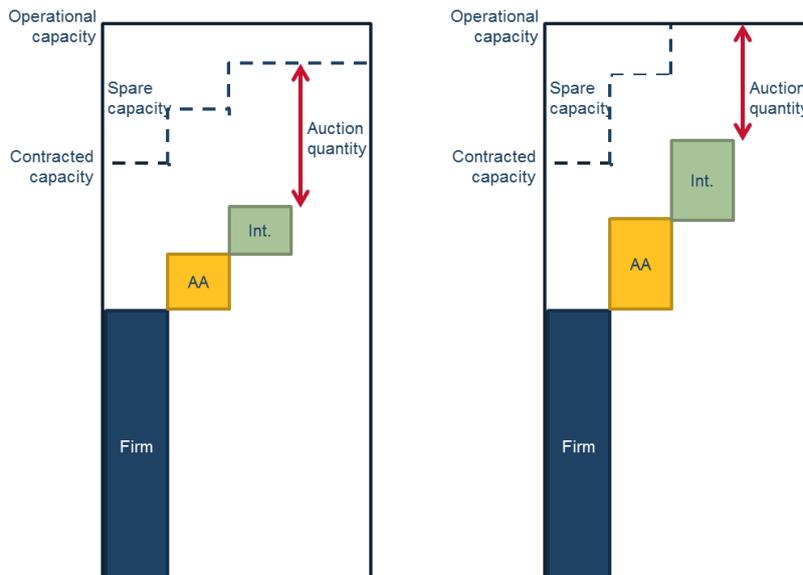
Intraday nominations (renominations, after the auction)

Once the auction quantity has been determined and auctioned, there are various options for how this and other services will be treated under renominations of any of the services, depending on the prioritisation of the products. This table highlights the spectrum of the prioritisation options.

Each of these scenarios assumes the full auction quantity has been purchased. All renominations are also assumed to be renominations up, given the auction product is likely to be for forward-haul, and therefore a renomination down is less likely to impact it.

	Fully interruptible auction product	**Non-firm renominations not allowed**	**Auction product prioritised over interrupting interruptible services**
Priority order	1. Firm 2. As available (firm once scheduled) 3. Firm renominations 4. Interruptible 5. Non-firm* renominations 6. **Auction product**	1. Firm 2. As available (firm once scheduled) 3. Firm renominations 4. Interruptible 5. **Auction product** 6. Non-firm* renominations	1. Firm 2. As available (firm once scheduled) 3. Firm renominations 4. **Auction product** 5. Interruptible 6. Non-firm* renominations
Description	The auction product can be bumped by renominations made under any contract. If bumped, they could have the option of purchasing an as-available product under rates in their operational GTA, if there is spare uncontracted capacity on the pipeline. Putting the auction product at the end of the prioritisation would mean it was less likely for contracts to have to be reopened for this product.	Renominations made under non-firm products (as available and interruptible) will not be allowed if they will bump the auction product. The auction product will be the first capacity bumped if a renomination is made under a firm product. Would require a change in law to give effect.	Auction product can only be bumped by firm renominations, and only once the interruptible products have been interrupted. Note: this option was raised by a participant in the project team, but has not yet been considered in depth by the team. Would require a change in law to give effect.

* Non-firm renominations include renominations made under both interruptible and as available products.

Given all nominations made against the auction product will be intraday nominations, auction product renominations have not been considered separately.

Note, the scheduling and intraday nominations options could be put together in any configuration.

Appendix D – Assessment criteria for auction product.

Cost / Benefit Assessment for Auction Product

COSTS:

- Cost (system changes, contracts)

- Time (time to market)

- Cost (transition to new products)

- Cost (trader establishment – people, time, training)

The team chose not to include the partial equilibrium cost (changes to revenue structure) in the analysis, as this was considered a wealth transfer rather than an additional cost.

BENEFITS:

- Does it do the job the AEMC required?

    o Provide an incentive to trade on the platform / otherwise

    o Inspire new products and innovation

    o More capacity available, ie. more efficient allocation or greater utilisation

    o Will gas find its way to party that values it most

    o Better information and price signals in the short and long term

    o Increase competition and reduce undue barriers to entry and exit. The disclosure and arbitration framework is also being designed to deal with barriers to entry.