



5–Yearly Review of the WA GSOO

Presented to the Gas Advisory Board by
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7 May 2018

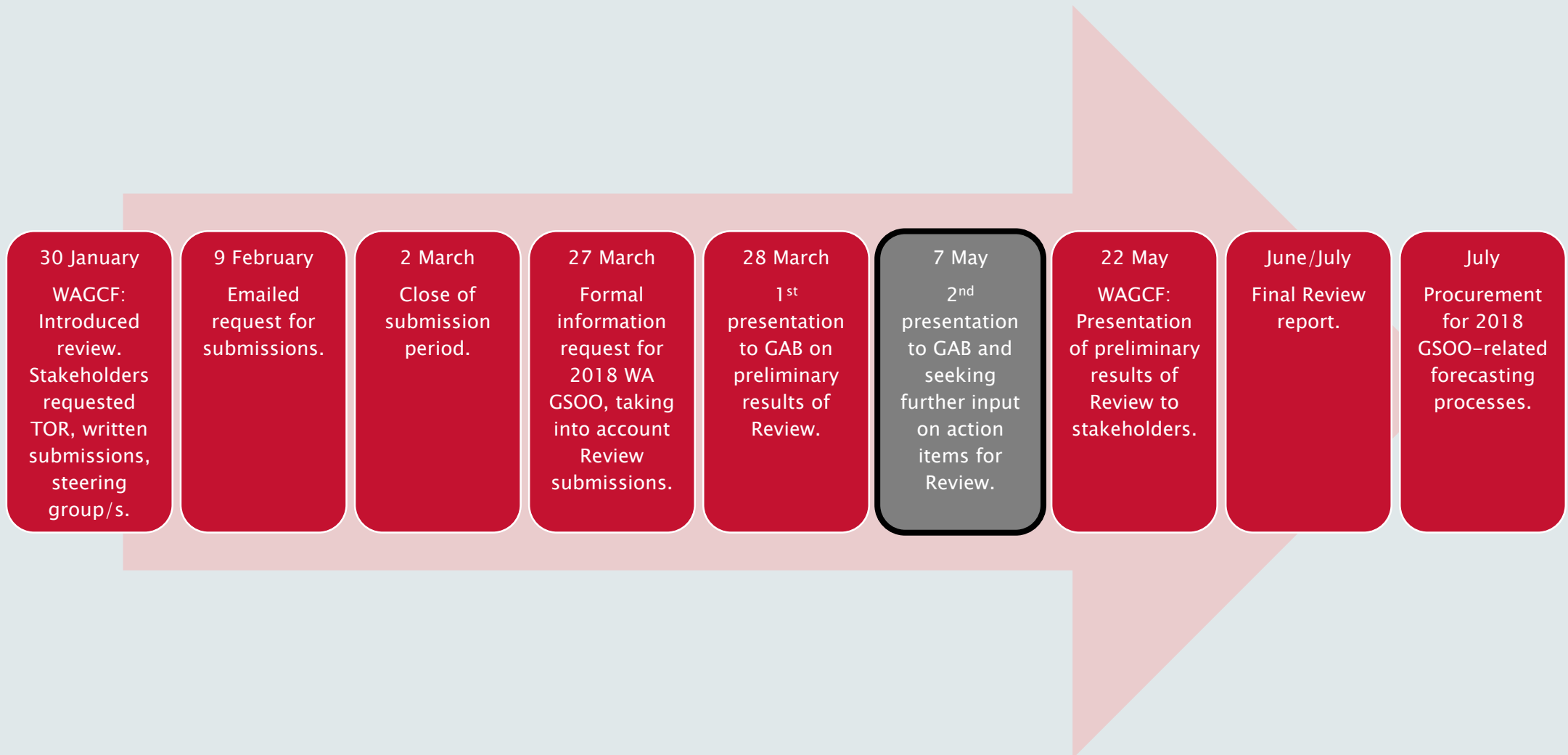
Agenda

1. Action items from GAB – 28 March 2018
2. Discussion items and GAB guidance
3. Next steps

Action items from GAB – 28 March 2018

Timeline (revised)

Five-yearly review of WA GSOO



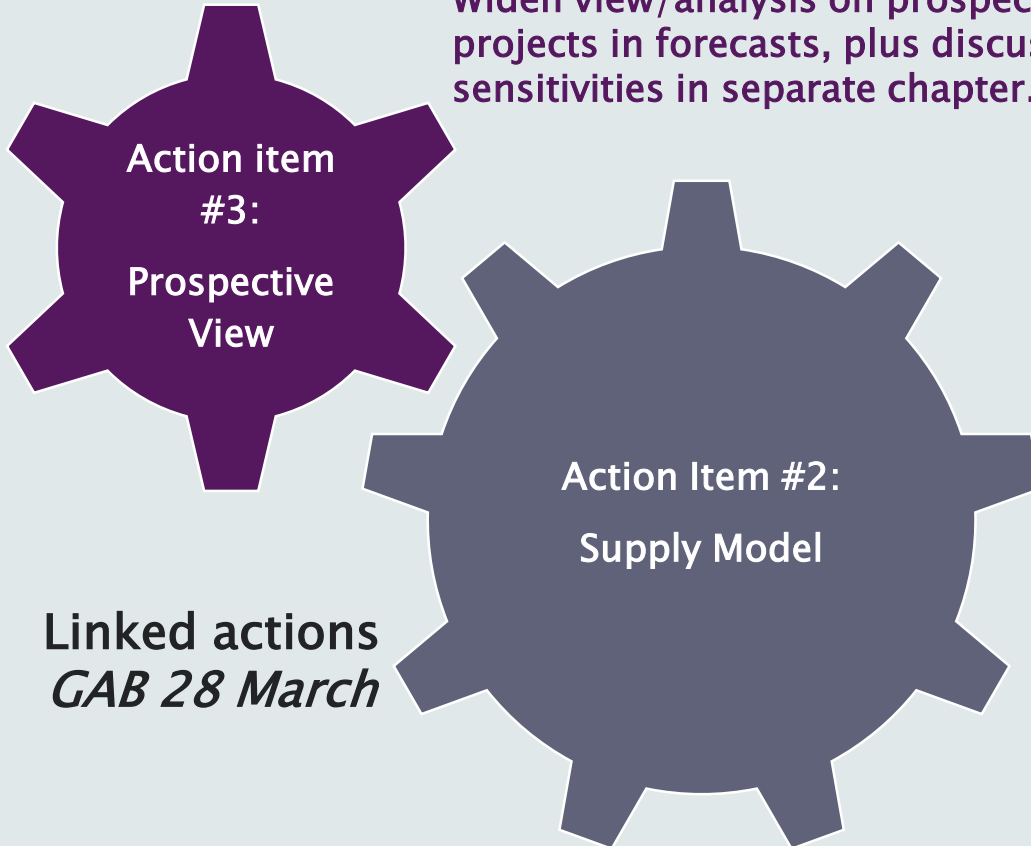
Action items – GAB 28 March

Action item – AEMO	Timeframe
High priority:	
1. Propose date for next meeting of GAB – Complete.	7 May 2018
Areas for Discussion and GAB Guidance:	
2. Gas supply: Use external consultant to verify assumptions, methodology for AEMO internal supply model. Potential re-build, noting timing limitations.	From May 2018
3. Widen view/analysis on prospective projects in forecasts. Identify criteria for inclusion.	From May 2018
4. Potentially discontinue price forecasts. Develop alternative references for prices over outlook period.	From May 2018
Action item – GAB to Reconfirm Endorsement:	
5. Discontinue peak gas demand forecast (in its current form). A few options are: 1) Sum of nameplate capacities of all gas-consuming facilities plus maximum metro/southwest demand. 2) Present hottest/coldest day, greatest gas use day in last year as per GBB data, plus discussion.	From July 2018
6. Undertake further GBB data analysis. Examples: Capture trends over last 12–18 months like consumption by region, usage category; production by facility; storage facility injections/withdrawals. (All publicly available)	From July 2018
7. Allow for greater consultation with gas Market Participants at assumptions/scenario development stage. AEMO to discuss treatment of prospective projects/discussion of sensitivities (3 above) at WAGCF held 22 May.	2018–2019

Discussion areas and GAB guidance

Gas supply model & prospective view – Seeking GAB guidance

Widen view/analysis on prospective projects in forecasts, plus discussion of sensitivities in separate chapter.



AEMO to identify:

- Prospective market events (via formal information request).
- Supply scenario assumptions with GAB input.

Next step:

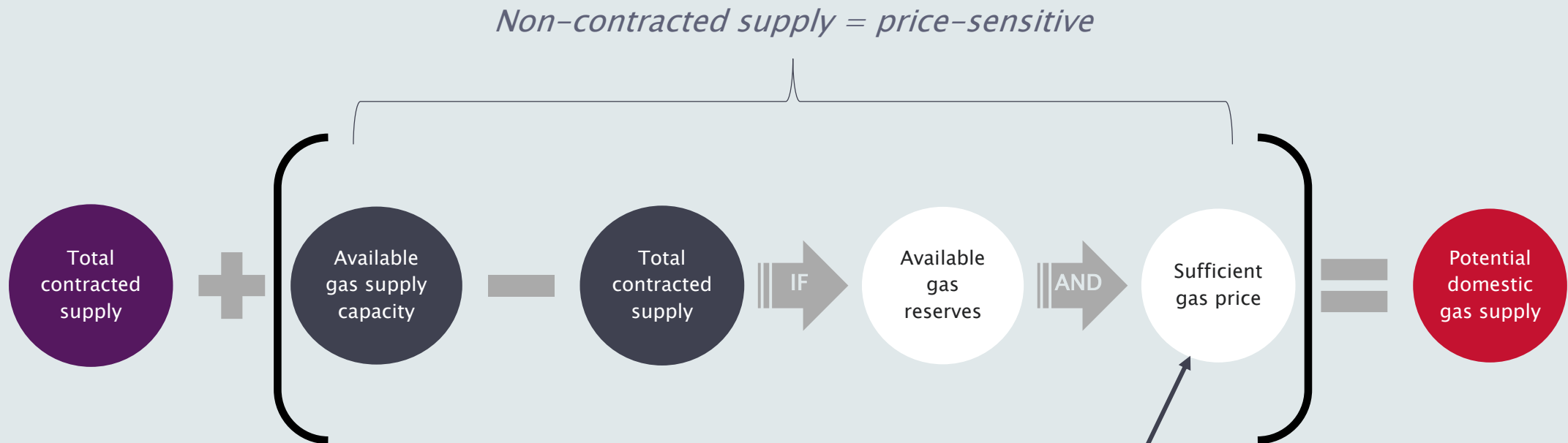
- AEMO to engage consultants around refining supply model.

*Seeking GAB guidance

Use external consultant:

- 1) To verify supply assumptions, methodology for AEMO internal model. Potential re-build of model.
- 2) To develop supply forecasts from their proprietary models.

Current potential gas supply forecast – Seeking GAB guidance



*Seeking GAB guidance:

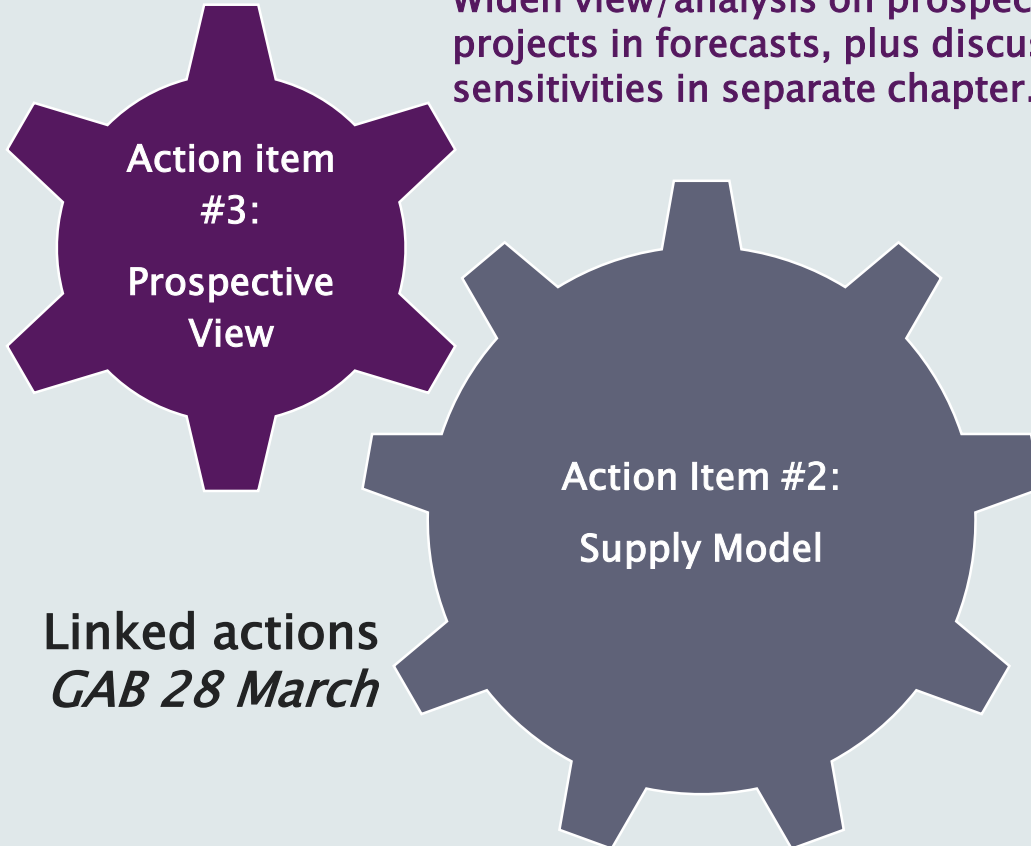
- Retain model – If so, which focus areas/assumptions to refine?
- Scrap model and rebuild, noting time constraints for 2018 WA GSOO development.

Further inputs:

- Set range of low, base, high oil price to derive delivered LNG price.
- Set range of low, base, high exchange rates.
- Cost of production – Woodmac.

Gas supply model & prospective view – Seeking GAB guidance

Widen view/analysis on prospective projects in forecasts, plus discussion of sensitivities in separate chapter.



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Next step:

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Treatment of prospective supply – Seeking GAB guidance

2017 WA GSOO included:

- Wheatstone & Gorgon Phase 2 in base scenario.
- Brief discussion of limited number of prospective projects, separately.
- * Seeking GAB guidance on **criteria** for base and high supply scenarios.
- * Seeking GAB guidance on 2018 WA GSOO **prospective supply**. A few options for consideration:

1) Include “likely” but pre-FID projects in base scenario?

2) Two-tier approach?

- Base scenario as per 2017 (FID-only or domgas policy tranche) + either:
 - Separate scenario with AEMO’s view of likely projects yet to take FID (base+likely scenario).
 - Include prospective supply in high scenario only.

3) Separate chapter discussing more comprehensive range of prospective supply, eg. not included in base scenario?

- Discuss impact on base scenario: semi-qualitative.
- Inclusion of all these projects in the high scenario would far exceed the current trend for demand growth. Quite drastic!
- To protect confidentiality of data provided by stakeholders, AEMO’s preference is to not use probabilities associated with each project.

Price forecasts – Seeking GAB guidance

Action item #4: Potentially discontinue price forecasts. Develop alternative reference for prices over outlook period.

Note: Not required under GSI Rules.

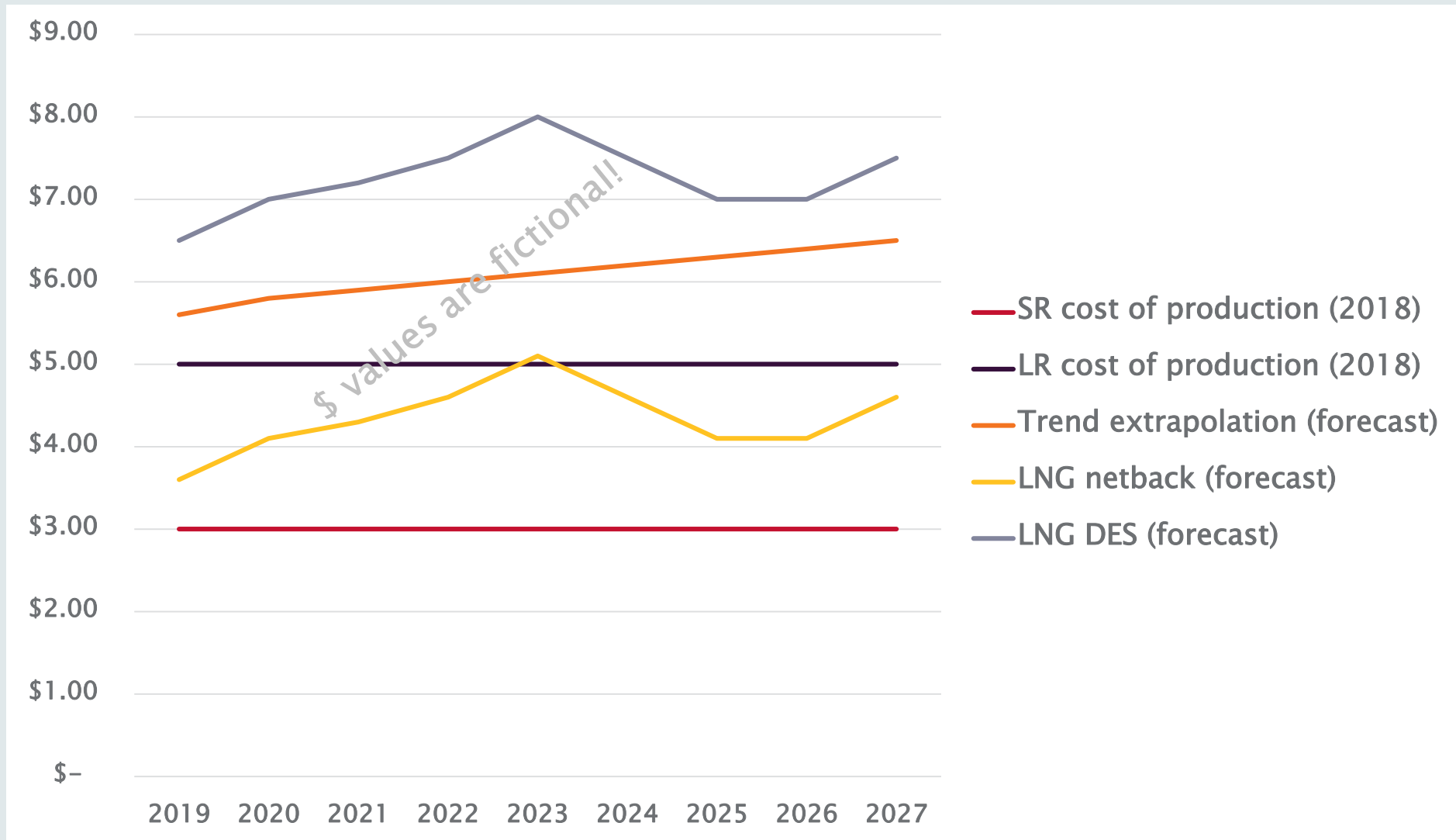
*Seeking GAB guidance:

- Endorsement of range of reference prices.

Reference price series:

- Short run cost of production – *Lower bound*.
- Long run cost of production.
- Trend extrapolation of historical average domgas price series.
- LNG netback.
- LNG delivered price – *Upper bound*.

Reference price series – Theoretical example



Next steps

Next steps

GAB to endorse actions on supply model, prospective view, price forecasting on 7 May 2018.

AEMO to progress with GAB-endorsed items:

1. Supply model-related:
 - a. Re-design of internal model or use of external forecasts.
 - b. Assumptions for supply scenarios: Action recommended inclusions.
 - c. Treatment of prospective supply: Action 1 of 3 options presented.
2. Price forecast: Action recommended reference prices presented.