Economic Regulation Authority

Balancing Submission Guideline

Draft

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Intro/Purpose

- Market Rules require Market Generators to price at or below their short run marginal cost (SRMC) when such behaviour relates to market power
- The purpose of this Guideline is to provide clarity on how the ERA interprets the undefined terms of Rule 7A.2.17
  - ERA's interpretation and learnings from Vinalco case
  - Guidance to market but not binding in any way.
- It also provides guidance on which costs the ERA considers may form part of a Market Participant's SRMC

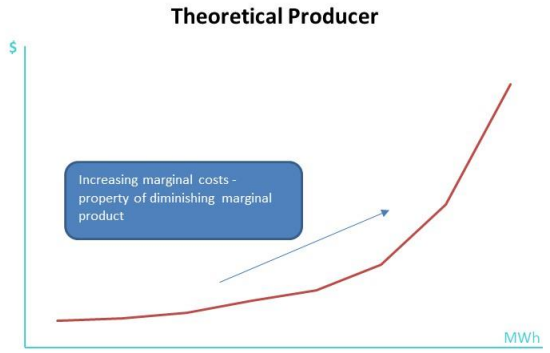
Market Rule 7A.2.17

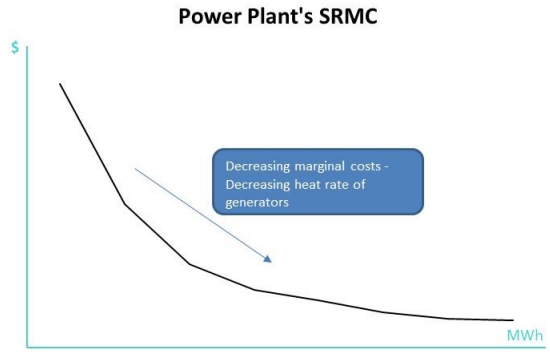
Subject to clauses 7A.2.3, 7A.2.9(c) and 7A.3.5, a Market Participant must not, for any Trading Interval, offer prices in its Balancing Submission in excess of the Market Participant's reasonable expectation of the short run marginal cost of generating the relevant electricity by the Balancing Facility, when such behaviour relates to market power.

- The words in this Rule should be read in the context of WEM objectives
  - 7A.2.17 is in place to promote efficiency and encourage competition

Peculiarities of the Energy Market

- Generators have a minimum generation level (below which production is not stable)
  - Costs between 0 and minimum generation are averaged
- Electricity generators face decreasing costs implies losses if using SRMC





- Using Average Variable Costs may not be related to market power

Example: SRMC vs AVC

- Gas unit running and expected to continue at 250MW

Output (MW)	Heat Rate (GJ/MWh)
105	8.310
135	7.883
200	7.680
250	7.625
270	7.779
300	7.897

Variable Operating and Maintenance	$5/MWh
AFCs	$100/hr
Gas Price	$6/GJ
Start-up Costs	$2,000

$$AVC = 7.62 * 6 + 5 + 100/250$$

$$AVC = \$51.15/MWh$$

*SRMC = 7.4 * 6 + 5*

= 44.42 + 5

= $49.42/MWh

To calculate the SRMC, it is necessary to convert the average heat rates to marginal heat rates using the formula as in Example 1:

$$MHR = \frac{(250MW * HR(250MW) - 200MW * HR(200MW))}{(250MW - 200MW)}$$

$$= \frac{(250MW * 7.625GJ/MWh - 200MW * 7.68GJ/MWh)}{(50MW)}$$

$$= \frac{(1{,}906.18GJ - 1{,}536.00GJ)}{(50MW)}$$

$$= 7.40GJ/MWh$$

Process

- ERA will publish a draft version for market participants for comment/feedback (January)
- Incorporate feedback (Feb)
- Publish final version to Market (Feb/Mar)

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Questions / comments?