

Impact of Changes to the Allocation of Capacity Credits to Intermittent Generators

**Presentation to the IMO Market Advisory Committee
20 March 2013**

Recap and Objectives

RC_2010_25 has exhibited some drawbacks

- Load for Scheduled Generation (**LSG**) problems:
 - Tends to discriminate against the largest wind generator.
 - Discriminates against wind farms in a similar geographical area.
 - Devalues wind's maximum production.
- Interval number problems
 - Too low a number of intervals creates too much volatility – a small increase in the number of intervals places the calculation in a more predictable range.
- U & K factor problems
 - The relevance of these factors is questionable.
- Suggest the review process be brought forward by one year
 - Sapere report recognises the need to revisit the analysis as new data becomes available (pages 20 – 23).
 - A review should concentrate on the underlying methodologies that need revisiting, including the, use of Peak, number of intervals and the U and K factors.

Preliminary recommendations (1)

1. Reconsider application of Load for Scheduled Generation

- LSG inherently discriminates against IGF capacity contributions
 - Use of LSG discounts intervals where IGF generation is greatest.
 - The larger the facility the greater the discrimination.
 - Collgar's capacity contribution materially devalued relative to other generators.
 - This same effect could easily transfer to IGFs closely located.
 - Contrary to market objective (c).
- LSG introduces interdependency of output among IGFs
 - Inconsistent with treatment applied to other capacity classes (DSM, scheduled generation).
 - Introduces significant volatility and prevents effective forecasting of CC valuations.
- LSG has not gained industry acceptance
 - Several industry participants opposed the introduction of LSG.
 - Use of peak demand intervals arguably more appropriate.

Preliminary recommendations (2)

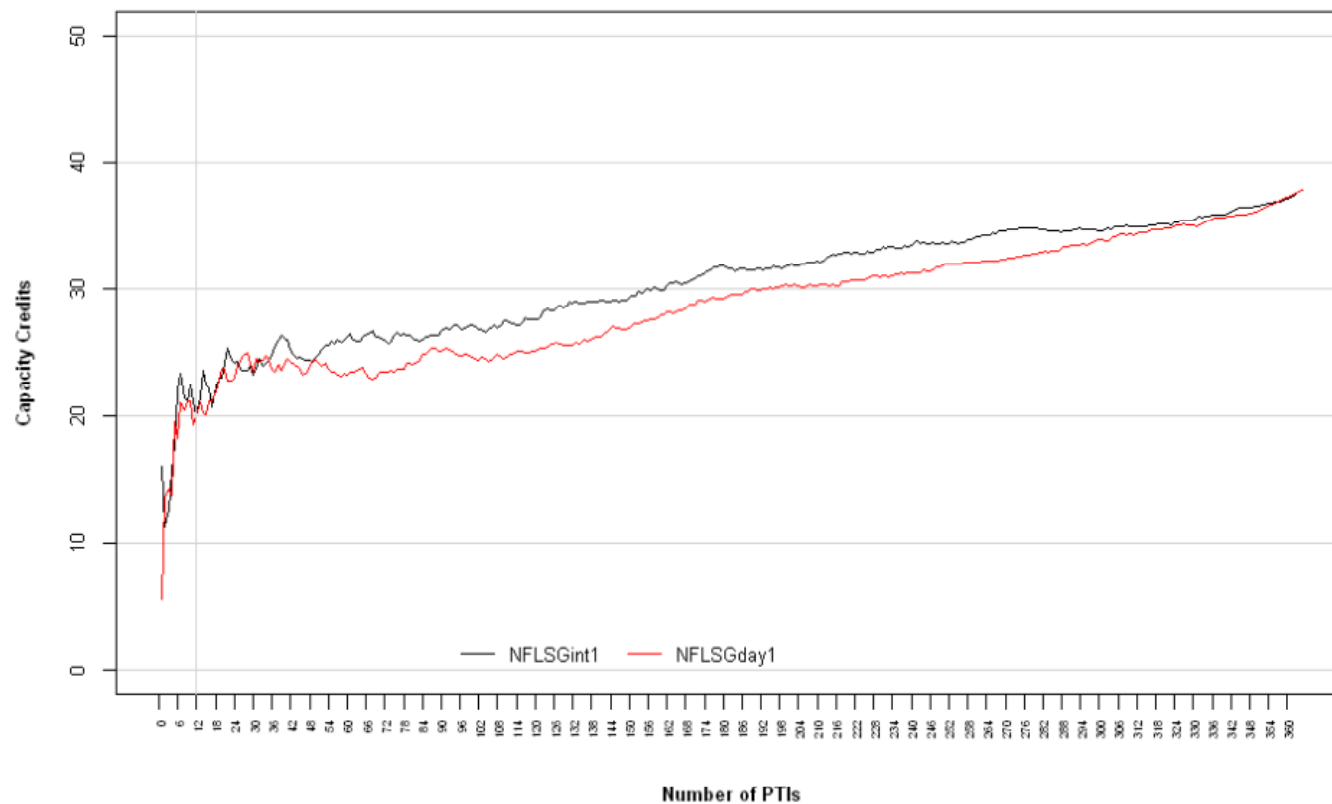
2. Consider a greater number and diversity of selected intervals

- Too few intervals introduces significant uncertainty and volatility
 - Independent analysis suggests data from at least 24 trading days per year for 5 years is recommended. (Data Analysis Australia – Dec 2012)

Analysis – Interval volatility

Use of too few intervals introduces material volatility of results

Collgar CC vs. no. selected trading intervals (selected by NFLSG demand)



Source: Data Analysis Australia

Results of change in preliminary recommendations



Material Impact on Collgar of a change to the number of intervals and use of Peak vs. LSG.

2014/15 Capacity Year

TIs/yr	LSG/Peak	Selection of days	Relevant Level	Materiality
12	LSG	sep days	20.1 MW	\$ -
12	Peak	sep days	30.4 MW	\$ 1.26m
24	Peak	sep days	33.4 MW	\$ 1.62m

2015/16 Capacity Year

TIs/yr	LSG/Peak	Selection of days	Relevant Level	Materiality
12	LSG	sep days	17.4 MW	\$ -
12	Peak	sep days	24.8 MW	\$ 0.89m
24	Peak	sep days	26.5 MW	\$ 1.10m

2016/17 Capacity Year

TIs/yr	LSG/Peak	Selection of days	Relevant Level	Materiality
12	LSG	sep days	16.3 MW	\$ -
12	Peak	sep days	22.3 MW	\$ 0.74m
24	Peak	sep days	23.9 MW	\$ 0.93m

Summary and next steps

Rule Change process to be reviewed given new data

- RC_2010_25 has materially affected Collgar and its stakeholders and will continue to do so.
- The current capacity crediting formulation can act to discourage investment
- Given the potential ongoing impacts on the market (exemplified by the materiality of the financial impact on Collgar in the previous slide) there are sufficient grounds to bring forward the next review process by one year.