snowy hydro Limited

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Presentation to AEMC
Physical Market Cap Trigger
& Spot Market Insurance Fund

20th January 2009

Presentation Outline

- Defining the Problem;
- Our experience with a “similar” scheme;
- Concerns with the NGF Rule proposal; and
- Benefits of Snowy Hydro’s alternative proposal.

What is the problem?

- Defining the problem is a key issue:
  - The NGF rule proposal implies that the problem is the inability to mitigate the financial risk of significant contingency event(s) outside a generator's direct control;
  - Limit 'unmanageable' arbitrary financial transfers; and
  - Reduce alleged inefficient spot market outcomes.

Snowy Hydro is in the same position as all other Generators.
We too would like an (efficient) solution to manage such risks.

Snowy Hydro related experiences

Snowy Hydro has prior experience from trying to develop a similar risk management product:

- The concept was a $300 Spot price cap in case of “major” transmission failure;
- Problems we experienced trying to define the scheme were:
  - Defining “major” transmission failure (very difficult to “pre-codify”);
  - Once the trigger condition was met, should the cap be applied to affected regions or all market regions?
  - What happens if NEMMCO did NOT consistently activate the trigger?

Our conclusion was the arrangement was problematic and did not assure that risks would be managed.

Many issues with the NGF Physical Cap Trigger

The issues we have with the Physical Market Cap Trigger include:

- The Rule proposal dismisses using contract FM provisions to manage risk. This assumption is very questionable:
  - Contract FM provisions are in use in the NEM, and could be used further as in other markets – Acceptance of FM provisions is simply a question of pricing.
- The proposal uses the spot market rules to limit financial exposure. This will distort spot market outcomes and incentives:
  - Because of a Spot market event(s) the market is at risk of being suspended. Just the risk of suspension alone will change generator incentives and response;
  - When the CAPP is imposed, the correct incentives for market response are removed;
  - Price signals are blunted and this reduces incentives on peak plant/demand new entry;
  - The CAPP proposal creates gaming opportunities to optionally trigger market suspension by portfolio generators with generation in different locations.

Many issues with the NGF Physical Cap Trigger (cont.)

- Arbitrary financial transfers are not addressed. Subject to a generator's contract position it could be a winner or a loser – the NGF proposal will only result in a different set of winners/losers;

- The NGF rule proposal smears the financial exposure thereby masking the root cause to the problem (eg transmission performance);

Issues with the Physical Cap Trigger (cont.)

- Once the CAPP is triggered, generator incentives will be distorted creating other problems. For instance:
  - Eg Shifting Murray generation to Tumut generation may result in negative settlement residues for the NSW to Vic interconnector;
  - Other businesses with generators in multiple regions would have similar incentives to shift patterns of generation. Ie. Origin with Uranquinty in NSW and Mortlake in Vic.
  - Market Intervention (market suspension) will be almost certainly be forced from a single contingency affected region to all connected market regions.

Issues with the Physical Cap Trigger (cont.)

- The Rule change proposal is not technology neutral:
  - peaking generators don’t have start up problems similar to coal generators. The NGF rule removes response benefits.
- The Rule change proposal is designed to favour generators in a highly concentrated location (eg. Favours the Latrobe Valley generators). This is because the probability of a contingency affecting multiple stations is much higher.

Issues continued – NEMMCO discretion

- Perversely increases NEMMCO's discretion to determine Spot market outcomes. Triggering the CAPP is totally reliant on NEMMCO;
- Relies on NEMMCO to execute a complex procedure at a time when they are likely to be stressed. This is not fair or practical to impose on NEMMCO;
- The NGF proposal raises the issue of compensation for NEMMCO errors in CAPP triggering ie triggering when shouldn't, not triggering when should have;
- Capping the spot market at times of system stress financially prevents appropriate supply and demand side response. This complicates system stress management for NEMMCO, and may create the need for directions and subsequent compensation;
- Potentially the NGF Rule proposal could lead to 1 market intervention per month !

Issues Continued – Credible vs Non Credible Contingencies

- The NGF rule proposal implies that the problem is about mitigating the financial risk of an non credible contingency event(s) outside a generator's direct control;
- However, a credible / non credible contingency is an artificial construct. NEMMCO's aim is to keep the system in a secure state following a contingency(s) – this is independent to market clearing.
  - A non-credible contingency is simply being deemed to be "inefficient".
  - Eg Two cascading credible contingencies will have the same market impact as the non-credible double contingency equivalent – The later double outages trigger the CAPP, the former outages don't (eg 23 July)?
    - This demonstrates the arbitrariness of the NGF proposal and the problem NEMMCO will have in deciding to trigger the CAPP in real time.

Efficient Financial Risk Management for Low Probability/High Impact Events

Snowy Hydro proposes an alternative rule:

- The proposal is an insurance fund for all spot market participants;
- Would involve developing a compensation fund. The fund is be a levied on all spot participants who choose to participate (members).
- Fund would be otherwise similar to the dispatch error compensation fund (code clause 3.16). The fund is proposed to be administered by the AER;
- Affected members can seek compensation from the Fund Administrator should they be financially affected by a low probability/high impact contingency event (outside their direct control); and
- There would be issues in defining what constitutes an event. But the major difference is this compensation can be sorted out after the event with actual data and not instituted in real time under system stress as is required under the NGF CAPP proposal.

Efficient Financial Risk Management for Low Probability/High Impact Events – Cont'

- The fund allows the Spot market to operate without the complexity of the NGF proposed Rule change;
- Allows spot market participants to choose to participate or not;
- Avoids the need for periodic market suspensions and associated impacts on financial transactions;
- It would be transparent and not mask Spot market pricing signals;
- Removes arbitrary financial transfers; and
- Removes NEMMCO discretion from the process.

Conclusion

The NGF Physical Cap Trigger rule change proposal does not resolve any of the problems outline earlier but rather:

- The rule proposal would create inefficient market outcomes by distorting generator/demand side incentives:
  - Potentially leading to negative Settlement Residues as generation is shift from one region to another where the CAPP does not apply;
    - NEMMCO may manage these negative settlement residues by also suspending adjacent regions to the original triggered region;
    - In effect, all market regions are at risk of market suspension.
  - Reduces peaking generator and demand side management incentives in responding to events and thereby distorts investment signals; and
  - Creates gaming opportunities to induce market suspension.

Conclusion

- The NGF Rule proposal creates just as many arbitrary financial transfers;
- There are alternative non intrusive ways to manage this risk if necessary through:
  - Contract FM;
  - Or alternatively through Snowy Hydro's Rule proposal which creates an efficient mechanism to manage the financial risks without the spot market distorting impacts.

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Questions ?