

Clarify availability and use of discretionary demand control

Driving efficient solutions to promote consumer interests through winter 2023

Agenda

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- Issues
- Development to date
- Proposed solution
- Implementation
- Next steps

Background

Following the November 2022 consultation on *driving efficient solutions to promote consumer interests through winter 2023*, the Authority initiated work with the system operator on five of the Authority's preferred options:

- (a) Option A – Provide better information on the headroom in the supply stack
- (b) Option B – Provide forecast spot prices under demand sensitivity cases
- (c) Option D – system operator review of wind offers based on an external forecast
- (d) Option E – clarify availability and use of discretionary demand control
- (e) Option G – Selectively increase existing ancillary service cover at times to offset increased uncertainty in net demand

This webinar will provide an update on the current design proposal for Option E.

The Authority will make a decision on whether to implement Option E and if so in what form at the end of April.

Issues

Grid emergencies are part of the system operator's power system security management process – this solution would provide an additional information gathering method to the system operator to maintain system security while providing additional information and incentives to market participants.

The use of discretionary demand control under a grid emergency is a key tool for the system operator in maintaining power system security. However, it is not a 'free' resource and should only be employed when normal market resources have not been committed in sufficient quantity.

Under current arrangements, availability and use of discretionary demand control is invisible to other participants, making resource commitment decisions difficult.

When discretionary demand control is called upon, the wholesale price impact of its use doesn't reflect the near-scarcity situation. Wholesale price is suppressed, removing the price signal for more efficient resources to be employed.

Development to date

The Authority has been working with the system operator to determine a solution that can be implemented ahead of winter 2023.

Initial thoughts included the use of new dispatch notification product to signal availability.

However, the complexity of using a new product and implementation requirements ruled out this option as impractical before winter 2023.

A key consideration in designing the new process was to minimise the changes to existing grid emergency processes. This would reduce operational change overhead and risk of error or misunderstanding under a grid emergency situation.

PROPOSED SOLUTION

Subject to decision and Code amendment approval



Proposed solution

Introduce a new method for signalling discretionary demand management availability – difference bids.

Difference bids have been present in the market since 2012 and are a simple implementation of a demand side bid.

Difference bids are only available at conforming load GXPs. Direct connect consumers at non-conforming load GXPs would not be required to submit difference bids.

Difference bids are not used in the dispatch process. This simplifies the implementation requirements, as a dispatch connection to the system operator is not required.

The effect of difference bids can be seen in the Price Response Schedules so participants can clearly see when they are likely to be called upon and the price impact of that action.

The emergency discretionary demand control bid would be priced at a near-scarcity price (proposed to be \$9,000/MWh)

Proposed solution

Distributors would only be required to signal the level of discretionary demand available to the system operator to call upon under a grid emergency for the periods specified by the system operator.

To align with current operational practice, it is proposed that emergency discretionary demand control could exclude discretionary demand:

- offered as interruptible load in the instantaneous reserve market
- the distributor intends to use for its own network management purposes
- contracted by a third party to bid into the wholesale market as dispatchable demand or dispatch notification load.

Proposed solution

Difference bids may not be an efficient method of communication for all distributors – the method for signaling emergency discretionary demand availability would need to be agreed with the system operator.

However, the system operator's preferred method would be via difference bids.

The communication method would need to be agreed with the system operator by 31 May 2023.

There would be no change in obligations for direct connect consumers (i.e. industrial consumers who currently submit demand bids at non-conforming grid exit points).

These consumers could still make voluntary reductions in demand in response to spot price as they do now.

It is essential that these consumers are mindful of their current obligations to update their demand bids to reflect any demand management actions they have taken or intend to take (Code Clause 13.19B).

IMPLEMENTATION

Subject to decision and Code amendment approval



Implementation

All distributors are registered as participants so have a unique participant code (you can confirm yours at <https://register.ea.govt.nz/>).

Some participants are already registered WITS traders and may be able to make minor changes to their trader account to submit difference bids.

Those who are not already registered traders may be able to agree with another distributor to submit difference bids on their behalf.

When agreeing a communication method with the system operator, the distributor would be provided with a preferred GXP(s) for the difference bids to be submitted at.

NEXT STEPS

Subject to decision and Code amendment approval



Next steps

Next steps if the Authority makes a decision to implement the Option:

- Early engagement with the system operator to agree communication method
market.operations@transpower.co.nz
- The system operator would contact NZX to set up any required changes in WITS
- Authority decision to be made late April and published early May
- Currently proposed to use urgent amendment process so proposed obligations would last 9 months
- Usefulness and industry appetite to extend arrangements would be reviewed at the end of winter 2023 and any necessary further consultation would follow.

Questions?

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