DEMAND RESPONSE OPERATIONAL PROTOCOL

FOR TRANSPower'S DEMAND RESPONSE PROGRAMME

November 2014
Electricity Authority and Transpower Operational Protocol for Transpower’s Demand Response programme

1 Purpose

The purpose of this protocol is to describe how Transpower will operate while carrying out the work included in Transpower’s DR programme and how Transpower and the Electricity Authority (Authority) will work to ensure that Transpower’s development of demand response does not adversely affect the wholesale electricity market.

2 Context

Transpower (as grid owner) is developing the capability to use demand response as a transmission alternative. Their development programme is called Transpower’s DR programme. The Authority recognises that Transpower needs to develop this demand response capability ahead of when it will be actually required as a transmission alternative.

There is already significant existing demand response in operation (e.g. response to spot prices and interruptible load as instantaneous reserve) and other industry parties are also developing new demand response products.

The Authority’s statutory objective is to promote competition in, reliable supply by, and the efficient operation of the electricity industry for the long term benefit of consumers. The Authority is concerned that the development of various demand response products may impact on the wholesale electricity market and would therefore be inconsistent with the statutory objective.

To address the Authority’s concerns regarding Transpower’s DR programme, both parties have agreed to develop a protocol to guide that programme.

3 Form of this protocol

This protocol includes:

- the scope definition of Transpower’s DR programme as a transmission alternative product
- a description of the future use of the Demand Response Management System (DRMS)
- a brief discussion on the integration of demand response, including Transpower’s DR programme, into the wholesale electricity market
- a set of principles that both Transpower and the Authority agree to adhere to during Transpower’s DR programme.
4 Joint objective for Transpower’s DR Programme

Transpower is committed to the consideration of transmission alternatives when developing and maintaining the grid. The Authority and Transpower’s joint objective for Transpower’s DR programme is to deliver consumer benefits by developing access to operable and competitive demand response for use as a transmission alternative that is integrated into the wholesale electricity market.

5 Scope of Transpower’s DR Programme

Transpower’s DR programme includes:

- investigation and development of demand response capability for use as a future transmission alternative
- arranging contracts with appropriate parties who may have demand response for potential use as a transmission alternative
- calling demand response from the contracted parties to test systems and processes
- the use of the DRMS to support the above
- communication, reporting and regular updates on the findings of Transpower’s DR programme
- an outline of the planned future use of demand response by Transpower as a transmission alternative following the completion of the development work being undertaken in Transpower’s DR programme.

Transpower’s DR Programme is a development programme only - it does not include the use of demand response to actually defer transmission investment. In addition Transpower’s DR programme does not include:

- development of existing demand response products, such as interruptible load for instantaneous reserve
- development of new demand response products not related to transmission alternatives
- the use of the DRMS for any reason other than to support what is in scope.

6 Future use of the DRMS

As part of Transpower’s DR programme Transpower has purchased a license to use a software platform for the co-ordination and management of demand response - Demand Response Management System (DRMS). Transpower intends to transfer the license and operation of DRMS to the System Operator and aims to be ready to do this by July 2015.

The DRMS has the potential to be used for other new demand response developments. However Transpower (as grid owner) has no intention to use the DRMS for any use other than for Transpower’s DR programme as defined in the scope, above. It is expected any decision to use the DRMS for other purposes will be jointly agreed by the System Operator and the Authority.
7 Integration of Demand Response into the electricity market

In an ideal world all demand response would be triggered by prices signalled through the spot market and paid for by such prices. The Authority will work with Transpower to develop and publish a programme of work by the end of the 2015 financial year that will lead to the market integration of Transpower’s demand response.

8 High level operating principles

- Transpower’s DR programme development will be open and transparent
- Transpower will publish a high level plan showing the proposed timing of the key stages in Transpower’s DR programme
- Transpower will regularly publish updates of programme plans and results
- Transpower’s DR programme will work to ensure that transmission alternative costs are as competitive as possible
- Transpower’s DR programme will work to lower barriers of entry for potential transmission alternatives proponents to participate in the transmission alternatives market
- Transpower will always consider the use of transmission alternatives in investment decision-making
- Transpower may consider whether transmission alternatives have a role in economically maintaining the grid
- Transpower will not develop demand response for any use other than as a transmission alternative without seeking agreement of the Authority.

Transpower and the Authority will seek to integrate Transpower’s DR programme into the wholesale electricity market according to the programme outlined under 2.2 above.
9 Signatures

Signed for
Transpower NZ Ltd

Name: Stephen Jay
Position: General Manager, Grid Development
Date: 11/11/14

Signed for the
Electricity Authority

Name: John Rampton
Position: General Manager Market Design
Date: 10/11/2014