

Schedule F3A Core Grid Determination

Making of Electricity Governance Rules

1. In accordance with rule 5A.6 in section III of part F of the **rules**, and the provisions of the **Act**, the **Minister**, on the recommendation of the **Board**, makes this **core grid determination** a schedule to section III of part F of the **rules** with effect from 16 February 2006.

Background

2. Rule 5A.1, in section III of part F of the **rules**, requires the **Board** to determine the most appropriate **core grid determination** and in so doing to have regard to the purposes set out in rule 5A.2, the principles set out in rule 4.3 for the **grid reliability standards** and the objectives set out in rule 5A.3.

The core grid determination

3. The purpose of this **core grid determination** is to define the **core grid** for the purposes of the **grid reliability standards** and so provide a basis for:
 - 3.1 the **Board** to determine the **grid reliability standards**;
 - 3.2 the **Board** to **publish statements of opportunities**;
 - 3.3 **Transpower** to prepare **grid upgrade plans**; and
 - 3.4 other parties to appraise opportunities for transmission investment and **transmission alternatives**.
4. The **core grid** consists of those assets that comprise the transmission links listed in Table 1 below:

Table 1

North Island Core Grid Links	South Island Core Grid Links
220kV Huapai-Marsden	220kV Islington-Kikiwa
220kV Huapai-Bream Bay	220kV Kikiwa-Stoke
220kV Bream Bay-Marsden	220kV Twizel-Tekapo B
110kV Marsden-Maungatapere	220kV Tekapo B-Islington
220 kV Henderson-Huapai	220kV Twizel-Opihi-Timaru-Ashburton
220 kV Albany-Huapai	220kV Ashburton-Bromley
220 kV Albany-Henderson	220kV Bromley-Islington
110kV Albany-Henderson	220kV Twizel-Opihi-Timaru-Islington

North Island Core Grid Links	South Island Core Grid Links
110kV Henderson-Hepburn Rd	220kV Livingstone-Islington
220kV Otahuhu-Henderson	220kV Benmore-Ohau B
220kV Otahuhu-Southdown	220kV Ohau B-Twizel
220kV Southdown-Henderson	220kV Benmore-Twizel
220kV Otahuhu-Penrose	220kV Benmore-Ohau C
110kV Mangere-Roskill	220kV Ohau C-Twizel
110kV Otahuhu-Roskill	220kV Benmore-Aviemore
110kV Otahuhu-Pakuranga	220kV Clyde-Cromwell
110kV Otahuhu-Wiri	220kV Cromwell-Twizel
220kV Otahuhu-Takanini	220kV Roxburgh-Clyde
220kV Huntly-Takanini	220kV Naseby-Livingstone
110kV Wiri-Bombay	220kV Roxburgh-Naseby
220kV Huntly-Glenbrook	220kV Roxburgh-Three Mile Hill
220kV Glenbrook-Takanini	220kV Three Mile Hill-Half Way Bush
220kV Otahuhu-Whakamaru	220kV Three Mile Hill-Sth Dunedin
220kV Otahuhu-Huntly	220kV Sth Dunedin-Half Way Bush
220kV Huntly-Hamilton	220kV Manapouri-Invercargill
110kV Mt Maunganui-Tarukenga	220kV Manapouri-Nth Makarewa
110kV Tarukenga-Tauranga	220kV Nth Makarewa-Invercargill
220kV Tarukenga-Edgumbe	220kV Invercargill-Roxburgh
220kV Edgumbe-Kawerau	220kV Invercargill-Tiwai Pt
220kV Kawerau-Ohakuri	220kV Nth Makarewa-Tiwai Pt
220kV Wairakei-Ohakuri	220/66kV interconnection Islington
220kV Ohakuri-Atiamuri	66kV Islington-Addington
220kV Atiamuri-Tarukenga	220/66kV interconnection Bromley
220kV Atiamuri-Whakamaru	
220kV Wairakei-Redclyffe	
220kV Wairakei-Whirinaki	
220kV Whirinaki-Redclyffe	
220kV Hamilton-Whakamaru	
220kV Tokaanu-Whakamaru	
220kV Bunnythorpe-Tokaanu	
220kV Bunnythorpe-Tangiwai	
220kV Rangipo-Tangiwai	
220kV Rangipo-Wairakei	
220kV Wairakei-Poihipi	
220kV Poihipi-Whakamaru	
220kV Stratford-New Plymouth	
110kV New Plymouth-Carrington St	
220kV Bunnythorpe-Haywards	
220kV Haywards-Wilton	

North Island Core Grid Links	South Island Core Grid Links
220kV Haywards- Linton	
220kV Wilton-Linton	
220kV Bunnythorpe-Linton	
110kV Wilton-Central Park	
110kV Takapu Rd-Wilton	
220kV Bunnythorpe-Brunswick	
220kV Brunswick-Stratford	
110kV Otahuhu-Mangere	
110kV Haywards-Takapu Rd	
220/110kV interconnection Marsden	
220/110kV interconnection Albany	
220/110kV interconnection Henderson	
220/110kV interconnection Penrose	
220/110kV interconnection Otahuhu	
220/110kV interconnection Hamilton	
220/110kV interconnection Tarukenga	
220/110kV interconnection New Plymouth	
220/110kV interconnection Stratford	
220/110kV interconnection Redclyffe	
220/110kV interconnection Bunnythorpe	
220/110kV interconnection Haywards	
220/110kV interconnection Wilton	

Interpretation

- For the purposes of this **core grid determination**, unless the context calls for another interpretation, a term has the meaning given to that term in the **grid reliability standards**.