

Consultation paper on the disclosure of risk management contract information

Prepared by the Electricity Commission

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Executive Summary

The Proposal contained in this consultation paper is for the disclosure of electricity risk management contract information that was previously identified as one of the preferred initiatives in the Hedge Market Development - Issues and Options papers (Original Consultation Paper), released in August 2005 by the Electricity Commission (Commission).

The Proposal requires Participants to disclose key details of their electricity risk management contracts, and is intended to facilitate ready comparability of prices and other key risk management terms. Although the Electricity Governance Rules 2003 (Rules) contained in this Proposal will only apply to Participants (as defined in the Rules), this should capture the majority of risk management contracts.

This Proposal is primarily directed at addressing the lack of available information for parties to use in making their risk management decisions. The Proposal should also provide a more informed basis for parties to assess the competitiveness of the risk management market.

The majority of submissions on the Original Consultation Paper supported the disclosure of contract information and further discussions have been held with all submitters who raised significant concerns. The Proposal described in this paper includes modifications to address the issues of commercial sensitivity raised by submitters. These changes include limited disclosure for contracts that are between two and ten years, and for contracts that are longer than ten years.

Proposed criteria for disclosure of contract information for Contracts for Differences and Fixed-Price Variable-Volume Contracts

Criteria	Term	Quantity	Price	Zone
Greater than 10 years	Full disclosure	Full disclosure	No disclosure	No disclosure
Longer than 2 years but less than 10 years	Requirement to disclose with the option of disclosure being "longer than two years but less than 10 years"	Requirement to disclose with the option of disclosure being "greater than 30MW"	Requirement to disclose with the option of disclosure being the normalised price to Haywards	Requirement to disclose with the option of disclosure being at Haywards
All other contracts	Full disclosure	Full disclosure	Full disclosure	Full disclosure

In addition, it is proposed to require the contract type, trade date, effective date, termination date, and whether there is an adjustment clause, a force majeure clause, a suspension clause and a clause allowing pass-through of costs, to be disclosed. For Contracts for Differences (CfDs), it is also proposed to require disclosure of whether profile of the contract is flat or variable, and whether there is a special credit clause.

The following table illustrates how the contract details for CfD and Fixed-Price Variable-Volume Contracts are likely to be presented.

No.	Contract Summary Information										Provisions					Normalised	Status
	Trade Date	Quantity (MW)	Grid zone area	Grid zone description	Effective Date	Termination Date	Term	Price (\$/MWh)	Contract Type	Profile	S1	S2	S3	S4	S5		
1	25/03/2007	5MW	1	Northland	1-Jun-07	1-Jun-09	2 years	\$74.50	CfD	Flat	No	No	No	No	No	No	Verified
2	25/03/2007	1MW	1	Northland	1-Jul-07	1-Oct-08	1 years, 3 months	\$73.00	CfD	Variable	No	No	No	No	No	No	Verified
3	25/03/2007	0.5MW	5	Hawkes Bay	1-Oct-07	1-Jul-08	9 months	\$72.50	CfD	Flat	Yes	No	Yes	Yes	Yes	No	Verified
4	25/03/2007	10MW	6	Taranaki	1-Nov-07	1-Dec-07	1 months	\$75.00	CfD	Variable	No	No	No	No	No	No	Verified
5	25/03/2007	1MW	2	Auckland	1-Jul-07	1-Jul-09	Longer than 2 years but less than 10 years	\$79.25	FPVV	-	Yes	Yes	Yes	No	No	No	Disputed
6	26/03/2007	1MW	2	Auckland	1-Jul-07	1-Oct-08	1 years, 3 months	\$71.75	CfD	Flat	Yes	No	No	No	No	No	Verified
7	26/03/2007	0.3MW	2	Auckland	1-Jul-07	1-Apr-09	1 years, 9 months	\$78.00	FPVV	-	Yes	No	No	No	No	No	Verified
8	26/03/2007	Greater than 30MW	8	Wellington	1-Jul-07	1-Jul-09	Longer than 2 years but less than 10 years	\$68.50	CfD	Flat	No	Yes	Yes	Yes	No	Yes	Verified
9	26/03/2007	10MW	6	Taranaki	1-Oct-07	1-Oct-08	1 years	\$75.00	CfD	Flat	No	No	No	No	No	No	Non-verified
10	26/03/2007	5MW	12	West Coast	1-Jul-07	1-Jul-09	2 years	\$73.45	CfD	Flat	No	No	Yes	Yes	No	No	Verified
11	26/03/2007	200MW	8	Wellington	27-Mar-07	30-Mar-07	3 days	\$64.25	CfD	Flat	No	No	No	No	No	No	Verified
12	26/03/2007	-	3	Hamilton	1-Jan-08	1-Jul-09	1 years, 6 months	\$72.50	FPVV	-	No	No	No	No	No	No	Unverified
13	27/03/2007	2MW	9	Nelson	1-Oct-07	1-Oct-08	1 years	-	Option	-	-	-	-	-	-	No	Verified

Standardised Contract
 Schedule 1: Adjustment
 Schedule 2: Force Majeure
 Schedule 3: Suspension
 Schedule 4: Special Credit Clause
 Schedule 5: Levies / Tax Pass Through

More limited disclosure is proposed for Options. This approach will enable the Commission to monitor the use of Options and assess whether additional Option details, such as price, should be required.

It is proposed that the counterparties under CfD would have to verify whether or not the disclosed information is correct, if they are a Participant. Non-Participants and counterparties under Fixed-Price Variable-Volume Contracts would have the option to verify.

The Proposal will progress the Government Policy Statement (GPS) objective of developing a transparent and liquid hedge market (risk management market). These improvements will enable buyers and sellers in the risk management market to make more informed decisions concerning the relative value of risk management contracts and thereby, better manage their risks.

The Proposal is likely to produce net economic benefits for New Zealand. These benefits arise from increased confidence in the risk management market; more accurate and timely assessment of market offers; more efficient use of standardised CfDs; and better informed policy-making.

The Proposal is low cost, requiring minimal IT development expenditure and minimal ongoing administration and compliance costs. The main risk is that disclosing information could facilitate collusive behaviour among buyers or sellers in the risk management market. This risk is considered negligible, as the competition regulators will also have more information with which to monitor risk management market behaviour.

The proposed rule amendments are described in Appendix A.

Glossary of abbreviations and terms

Act	Electricity Act 1992
Baseload	A flat quantity of electricity
CfD	Contracts for differences
Commission	Electricity Commission
Original Consultation Paper	The HMDSG advised on two consultation papers for the Commission, which were published on 25 August 2006. The papers comprised an Overview Paper and a detailed Technical Paper.
Forward price	A forward price is the price today at which two parties are willing to settle a transaction at some time in the future.
Forward price curve	The forward price curve is the price today at which parties are willing to settle a transaction at a series of dates in the future.
FPVV	Fixed-price variable-volume (a type of physical electricity contract)
FTRs	Financial Transmission Rights (a type of transmission hedge)
GPS	Government Policy Statement on Electricity Governance (October 2006)
HMDSG	Hedge Market Development Steering Group
hedge	The act of procuring an instrument used for reducing the risk position of the parties involved
hedge market	The market for trading wholesale electricity derivatives
Historic Contract Curves	Historic contract curves are the prices at which parties have settled transactions at a series of dates in the past.
Information system	The system or systems required for the conveyance of information between persons in accordance with the Rules as may be approved from time to time by the Board
Minister	Minister of Energy
Options	The right, but not the obligation, to buy or sell a risk management contract
Participant	As defined in the Rules: (a) means any of the following (within the meaning of section 2(1) of the Electricity Act 1992):

	<ul style="list-style-type: none"> (i) an electricity distributor: (ii) an electricity generator: (iii) an electricity retailer: (iv) a line owner <p>(b) includes a person who uses electricity that is conveyed to the person directly from the grid:</p> <p>(c) includes a person who buys electricity from the clearing manager:</p> <p>(d) includes a service provider:</p> <p>(e) includes a metering equipment owner:</p> <p>(f) includes an ancillary service agent:</p> <p>(g) includes a data administrator:</p> <p>(h) includes an approved test house:</p> <p>(i) does not include the Board (even to the extent that the Board is acting as a service provider after an appointment under regulation 35):</p> <p>(j) does not include the Rulings Panel</p>
Proposal	The disclosure of contract information proposal
Rules	Electricity Governance Rules 2003
Regulations	Electricity Governance Regulations 2003
risk management market	The market for products used by parties to manage exposure to electricity spot price risks
risk management contracts	Instruments used to change the risk position of the parties in relation to electricity prices
risk management market participants	Any participant in the New Zealand electricity risk management market. This includes purchasers of Fixed Price Variable Volume (FPVV) contracts, banks and speculators. This is broader than the definition of Participant included in the Rules.

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1. Introductory material

1.1 Purpose

1.1.1 The purpose of this paper is to:

- (a) outline the rule change proposal for the disclosure of electricity risk management contract information;
- (b) provide an analysis of the proposed rule change; and
- (c) provide information for interested parties to base their submissions on.

1.1.2 This paper is a statement of proposal in accordance with section 172F of the Electricity Act 1992 (Act).

1.1.3 The proposed amendments to the Electricity Governance Rules 2003 (Rules), set out in this consultation paper, mandate the disclosure and publication of summary information about electricity risk management contracts that are captured by specific threshold criteria. This set of proposed rule changes is considered as one proposal (Proposal).

1.1.4 The Commission considers that the objective of the Proposal is unlikely to be satisfactorily achieved by any reasonably practicable means other than as recommended in the Proposal. The Proposal accordingly includes the rule amendments that would be required to implement the proposed changes.

1.2 Background

1.2.1 The Government Policy Statement on Electricity Governance October 2004 (GPS)¹ sets out specific outcomes the Commission must seek to achieve. The GPS refers to hedging and hedge markets in the following contexts.

¹ A copy of the GPS is available at www.med.govt.nz/ers/electric/governance-gps/final/index.html

- 1.2.2 Paragraph 76 of the GPS states that “a transparent and liquid hedge market is a critical component of an efficient wholesale market as it enables market participants to manage their risks and facilitate retail competition”. The GPS also notes that concerns are regularly expressed that the current hedge market does not operate particularly well.
- 1.2.3 Paragraph 77 of the GPS describes the Government’s regulation-making powers in relation to hedge markets, in particular requiring:
- (a) disclosure of information;
 - (b) minimum contract offerings;
 - (c) minimum contract purchasing;
 - (d) certain terms and conditions; and
 - (e) posting of prices.
- 1.2.4 However, paragraph 77 notes that the Commission may only recommend regulations if it has first established that there are significant problems that cannot be resolved through voluntary arrangements.
- 1.2.5 Paragraph 122 of the GPS states that priority should be given to, among other things, improving hedge market transparency and liquidity.
- 1.2.6 In response to the outcomes specified in the GPS, the Commission established the Hedge Market Development Steering Group (HMDSG) to consider and make recommendations to the Commission on hedge market issues. Details on the HMDSG are available from the Commission’s website at:
<http://www.electricitycommission.govt.nz/opdev/wholesale/Hedge>
- 1.2.7 For the purpose of this paper the hedge market is referred to as the risk management market.

Hedge Market Development Steering Group (HMDSG) advice

- 1.2.8 The HMDSG advised on two consultation papers (together referred to as the Original Consultation Paper) for the Commission, which were

published on 25 August 2006. The papers comprised an Overview Paper² and a detailed Technical Paper³. The Original Consultation Paper discussed a number of issues, with one of the significant issues being the lack of information on electricity risk management market trades. The Original Consultation Paper also identified a package of preferred initiatives that are likely to promote significant improvements to the market for managing spot price risks. One of the key initiatives was to require parties that enter into electricity risk management contracts to disclose details of these contracts. For simplicity, all future references to the risk management market in this paper relate only to the electricity risk management market.

- 1.2.9 This Proposal requires Participants, as defined in the Rules, to disclose key details of their risk management contracts, and is intended to facilitate ready comparability of prices and other key risk management terms. This Proposal is primarily directed at addressing the lack of contract information available for risk management market participants and enables them to formulate their own historic contracts curve. Improved information should also allow parties to assess the competitiveness of the risk management market.
- 1.2.10 The majority of submitters on the Original Consultation Paper supported the disclosure initiative. These submitters noted that it is a feasible way of supplying a greater level of information on risk management, and increased transparency in the risk management market.
- 1.2.11 Four submitters⁴ to the Original Consultation Paper indicated that they had concerns that some of the information contained in contracts is commercially sensitive. The Commission has discussed these concerns with the submitters and their views have been considered in the development of this Proposal.

² <http://www.electricitycommission.govt.nz/pdfs/opdev/wholesale/pdfsconsultation/Hedge-overview-amended.pdf>

³ <http://www.electricitycommission.govt.nz/pdfs/opdev/wholesale/pdfsconsultation/Hedge-techpaper-amended.pdf>

⁴ <http://www.electricitycommission.govt.nz/pdfs/submissions/pdfswholesale/HedgeOct06/WPI.pdf>
<http://www.electricitycommission.govt.nz/pdfs/submissions/pdfswholesale/HedgeOct06/Norske-Skog.pdf>
<http://www.electricitycommission.govt.nz/pdfs/submissions/pdfswholesale/HedgeOct06/Comalco.pdf>
<http://www.electricitycommission.govt.nz/pdfs/submissions/pdfswholesale/HedgeOct06/MEUG.pdf>

1.3 Related commission projects

- 1.3.1 The Commission has undertaken, or is undertaking, several projects that may influence the HMDSG workstream.

Market Design Report

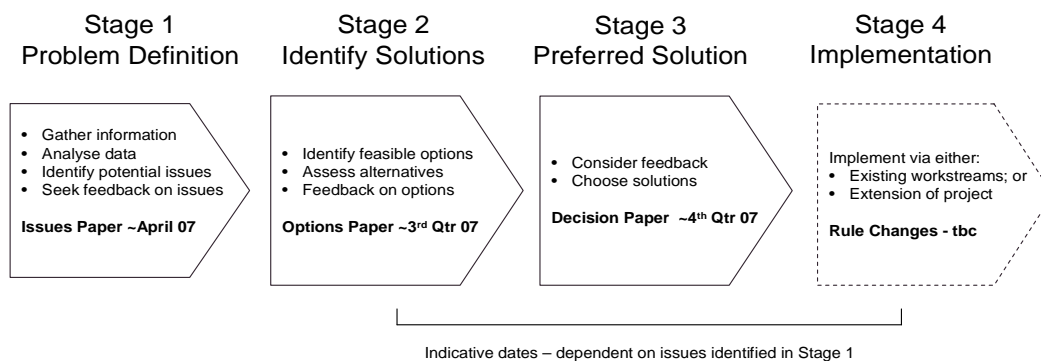
- 1.3.2 Independent of the work completed by the HMDSG, a market design report was prepared for the Commission by the New Zealand Institute of Economic Research. One of the recommendations of this report was that an effort should be made to provide risk management market participants and the general public with a transparent forward price curve. The report is available at:

<http://www.electricitycommission.govt.nz/opdev/wholesale/marketdesign/mktdesignrpt/view?searchterm=market%20design%20report>

Market Design Review

- 1.3.3 As foreshadowed in the Statement of Intent for 2006-09, the Commission recently commenced a Market Design Review project to review the performance of the electricity market, and identify any modifications that may be desirable to improve its performance.
- 1.3.4 The Commission intends that the Market Design Review will contribute to:
- (a) more robust sector performance possibly through improved market design (assuming beneficial changes are identified); and
 - (b) improved stakeholder support, by disseminating analysis and reasoning on the proposed modifications to the market, and the areas where no amendments are proposed.
- 1.3.5 The Market Design Review has been structured into four distinct phases as set out below.

Market Design Review – Intended Timetable



A 4-stage process is proposed to provide opportunity for stakeholder input

- 1.3.6 This phased approach is designed to facilitate stakeholder input to both problem definition and solution identification. The first key step in the process was the release of an Issues Paper⁵.
- 1.3.7 Implementation of the Market Design Review’s findings would occur after high level decisions are made on design issues.
- 1.3.8 The Market Design Review has a broad scope and may have implications for the HMDSG work. For this reason, it is envisaged that input may be sought on any relevant risk management market findings as the Market Design Review progresses, especially from Stage 2 as potential areas for improvement are identified.
- 1.3.9 However, the development of the disclosure of contract information proposal described in this paper is considered complementary to any developments likely under the Market Design Review. Therefore, consultation on the proposal should proceed.

⁵ <http://www.electricitycommission.govt.nz/pdfs/opdev/wholesale/market-design/Market-Design-Review.pdf>

1.4 Commission's approach

1.4.1 Developing contract markets requires participants to have confidence in the integrity and competitiveness of that market. However, it is not possible to directly regulate confidence – the focus of regulation needs to be on the market fundamentals that underpin confidence. Consequently, the Commission favours introducing proposals that are likely to grow confidence and reduce the risk of introducing unintended consequences.

1.4.2 Consistent with this approach, and in response to the work completed by the HMDSG, the Commission has developed this Proposal to amend the Rules. The Proposal requires Participants to disclose summary contract information that will then be published on the Information System⁶. The Commission considers that voluntary arrangements for the publication of such information are unlikely to achieve the desired objective and now wishes to consult with interested parties on the proposed rule changes.

1.5 Submissions

1.5.1 The Commission invites submissions on the Proposal and in answer to the specific questions contained in this paper by 5pm on Friday 21 September 2007. Please note that submissions received after this date may not be considered.

The Commission requests that submissions are provided in electronic format (Microsoft Word). The electronic version should be emailed with 'Disclosure of contract information' in the subject header to: info@electricitycommission.govt.nz.

Any queries should be directed to:
Jenny Walton
Tel: (04) 460 8860

1.5.2 The Commission will acknowledge receipt of all submissions electronically. Please contact Jenny Walton if you do not receive electronic acknowledgement of your submission within two business days of sending your submission.

⁶ "Information system" means the system or systems required for the conveyance of information between persons in accordance with the Rules as may be approved from time to time by the Board

- 1.5.3 Submissions should be provided in the format shown in Appendix C. Your submission is likely to be made available to the general public on the Commission's website. Submitters should indicate any documents attached, in support of the submission, in a covering letter and clearly indicate any information that is provided to the Commission on a confidential basis. All information provided to the Commission is subject to the Official Information Act 1982.

2. Regulatory framework

2.1 Introduction

2.1.1 This chapter summarises the regulatory framework for the development of the New Zealand electricity risk management market. It also explains the Commission's approach in applying aspects of that framework.

2.1.2 The relevant regulatory framework is based on the Rules, the GPS, the Regulations and the Act. In addition to setting out the process that the Commission must follow in its decision-making, the regulatory framework sets out the evaluation criteria that the Commission must take into account in developing its proposals.

2.2 Electricity Act, the Regulations, GPS, and the Rules

2.2.1 Section 172N(1) of the Act sets out the principal objectives of the Commission in relation to electricity. These are:

- (a) to ensure that electricity is produced and delivered to all classes of consumers in an efficient, fair, reliable and environmentally sustainable manner; and
- (b) to promote and facilitate the efficient use of electricity.

2.2.2 Section 172N(2) of the Act sets out the specific outcomes, consistent with the Commission's principal objectives, that the Commission must seek to achieve.

2.2.3 Section 172O of the Act describes the Commission's functions. These include giving effect to the GPS objectives and outcomes. The Act provides regulation making powers to establish and promote hedge markets (risk management markets).

2.3 Process for amendments to the Rules under the Act

2.3.1 The Minister of Energy (Minister) may make a rule for all or any of the purposes for which an electricity governance regulation may be made⁷. A rule is made by publishing a notice in the *Gazette*⁸.

2.3.2 If the Minister makes, or the Commission recommends, a rule for a purpose for which an electricity governance regulation may be made, the Minister and the Commission must comply with the same conditions and process that would apply under section 172D(3)⁹, section 172E, or section 172F of the Act if they were making recommendations on that electricity governance regulation, and those sections apply (with all necessary modifications) accordingly.

2.3.3 Sections 172X and 172Z of the Act also apply¹⁰. The Commission must, in formulating recommendations, give effect to its principal objectives and specific outcomes and the GPS objectives and outcomes¹¹. The Minister must have regard to a recommendation by the Commission in exercising any of his functions or powers in relation to the Rules¹².

2.3.4 Under section 172E(2)(b) of the Act, before making a recommendation, the Commission must:

- (a) undertake an assessment under section 172F of the Act;
- (b) consult with persons that the Commission thinks are representative of the interests of persons likely to be substantially affected by the proposed rules;
- (c) give those persons the opportunity to make submissions; and
- (d) consider those submissions.

⁷ Section 172H of the Act.

⁸ Section 172I of the Act.

⁹ Section 172D(3) of the Act provides that the Commission and the Minister must ensure, before making a recommendation for any rules under section 172D(1)(2) of the Act, that those rules do not provide for undue discrimination between electricity generators.

¹⁰ Section 172E(2)(a) of the Act.

¹¹ Section 172X of the Act.

¹² Section 172Z of the Act.

- 2.3.5 Under section 172F(1) of the Act, before making a recommendation, the Commission must:
- (a) seek to identify all reasonably practicable options for achieving the objective of the rule;
 - (b) assess those options by considering the benefits and costs of each option, the extent to which the objective would be promoted or achieved by each option, and any other matters that the Commission considers relevant;
 - (c) ensure that the objective of the rule is unlikely to be satisfactorily achieved by any reasonably practicable means other than the making of the rule (for example, by education, information or voluntary compliance); and
 - (d) prepare a statement of proposal for the purpose of consultation under section 172E(2)(b)(ii) of the Act¹³.
- 2.4 Consideration against the relevant objectives
- 2.4.1 As discussed above, in formulating recommendations for rules, the Commission must give effect to its principal objectives and specific outcomes and its GPS objectives and outcomes.
- 2.4.2 The ways in which the Proposal gives effect to the relevant objectives and outcomes are set out in Appendix A.

¹³ Section 172F(2) provides that the statement of proposal must contain a detailed statement of the proposal, a statement of the reasons for the proposal and an assessment of the reasonably practicable options, including the proposal, and other information that the Commission considers relevant. Under section 172E(2)(b)(ii), the Commission must consult with persons that it thinks are representative of the interests of persons likely to be substantially affected by the proposed rule.

3. Statement of proposal

- 3.1.1 The Proposal consists of recommended rule amendments required to manage the disclosure of contract information under the Rules. Accordingly, this statement of proposal considers all of these related rule changes as one proposal.
- 3.1.2 As the Proposal constitutes rule amendments, the process set out in the Act must be followed.
- 3.1.3 This paper is a statement of proposal as required by section 172F(2) of the Act, for the purposes of consultation under section 172E(2)(b)(ii) of the Act. As such, it sets out the Commission's objective, a detailed statement of the Proposal, a statement of the reasons for it, provides an assessment of the reasonably practicable options, and any other information that the Commission considers relevant.
- 3.1.4 It is worth clarifying that any reference to Participant in this paper is as defined in the Rules¹⁴. Risk management market participants are broader than the definition of Participant included in the Rules and may include additional parties such as: purchasers of Fixed Price Variable Volume (FPVV) contracts, banks and speculators in the risk management market. Therefore, these Rules will not apply to all risk management market participants. This means, if neither of the counterparties is a Participant, then no contract disclosure would be required. These situations should, however, be rare, so that the number of contracts that are undisclosed should be small.

3.2 Objective of the Proposal

- 3.2.1 The HMDSG identified five key issues with electricity risk management in New Zealand. Submissions on the Original Consultation Paper strongly supported the HMDSG identification of these issues. The two main issues that relate to this Proposal are:
- (a) the lack of robust information available to risk management market participants; and

¹⁴ <http://www.electricitycommission.govt.nz/pdfs/rulesandregs/rules/rulespdf/Regs-7Jun06.pdf>

- (b) the general lack of confidence in the competitiveness of the risk management market.

3.2.2 The objective of the Proposal is to address both these issues which are described in more detail below.

Lack of robust information

3.2.3 As outlined in the Original Consultation Paper, a key issue for a number of parties is the absence of public information on the risk management market. Some parties claim that the large generator/retailers are in an advantageous position because the array of complex information they use in their day-to-day business is often not easily, or economically, accessible to smaller organisations.

3.2.4 With the exception of the residential market, the bulk of risk management contracts in New Zealand are negotiated directly between a seller and a buyer, often over the phone. This is commonly called the “over-the-counter” (OTC) market. As with other OTC markets, very little information is publicly available about the OTC contract prices and volumes.

3.2.5 Apart from *EnergyHedge*, which only covers a small volume of contracts, the infrequently updated M-co Fixed Price Contract Index and the New Zealand Tariff & Fuels price index, there is essentially no information available on prices or other terms and conditions of risk management contracts.

3.2.6 Many parties are concerned about this low level of transparency. With extremely limited information from the OTC market, it is challenging for risk management market participants to develop robust views of forward prices. The objective is therefore to provide risk management market participants with accurate, timely and non-discriminatory access to risk management contract information.

Lack of confidence in the competitiveness of the risk management market

- 3.2.7 Concerns were raised in the UMR survey¹⁵ that some of the generator/retailers exercise market power in the risk management market, and that they price-discriminate against consumers relative to the implicit price of risk management cover provided to their affiliated retailer.
- 3.2.8 Both the Ministry of Economic Development (MED) and the Commerce Commission have considered this issue in response to pressure from purchasers. John Small prepared a report on risk management issues for the MED in March 2002¹⁶ which did not reach any conclusion on whether or not market power exists. The Commerce Commission has considered market power issues on several occasions. However, in no case did it determine that market power had been exercised. The Commerce Commission is currently undertaking an investigation into competition in the electricity market as a whole.
- 3.2.9 Several of the concerns raised by risk management market participants reflect an underlying problem with confidence in the competitiveness of the risk management market.
- 3.2.10 These concerns do not necessarily mean that there is a market power problem, but, at the very least, there appears to be some suspicion among risk management market participants, including some generators, that generator/retailers exercise market power in the risk management market, and perhaps also in the spot market and the retail electricity market.
- 3.2.11 The lack of access to accurate and timely information, or unequal access to such information, can distort prices and lead to inefficient decision-making and an overall lack of confidence in the risk management market. The overall lack of timely, relevant, and high quality information undermines confidence in the risk management market. This may deter parties from using derivatives and may lead to the adoption of alternatives, such as vertical integration or FPVW contracts.

¹⁵ In June 2005 the Commission engaged UMR to undertake a survey of the hedge market. The results of this survey were used to gather information on the scope and operation of the hedge market and assist with the identification of the key problems.

¹⁶ Small, John, "Hedge Markets for Electric Power in New Zealand: A report to the Ministry of Economic Development", March 2002.

3.2.12 These suspicions have a corrosive effect on the risk management market, as they undermine interest in participating in the market, encouraging parties to lobby for 'political insurance', and creating an uncertain regulatory environment for all concerned. These effects reach far beyond the risk management market, through to whether the spot market is delivering long term benefits.

3.2.13 The problem the HMDSG grappled with is that it is difficult to determine, with a high degree of confidence, whether the concerns about competitiveness are real or misperceived. Lack of information on OTC trades, and the limited degree of contract standardisation, makes it very difficult to compare contract prices.

3.3 Summary of proposal

3.3.1 The objective of the Proposal is to provide an appropriate level of information to interested parties about risk management contracts in order to enable better management of electricity price risk.

3.3.2 Improving disclosure is crucial to improving the effectiveness and efficiency of the market as a whole. Disclosure of market activity and trades is critical for facilitating a transparent market. Transparency underpins confidence that market processes are fair, and that the Rules are applied with equal vigour to all Participants. Total transparency puts the spotlight on market operators to function with the utmost integrity, and to speedily address rule breaches whenever, and wherever, they occur.

3.3.3 In addition, disclosure of price-sensitive information is critical for removing opportunities for insider trading. Strict enforcement of information disclosure requirements, and vigilant monitoring and policing of insider trading activity, is a necessary requirement of successful derivative markets.

3.3.4 However, care must be taken not to allow or mandate the disclosure of information that could undermine efficiency, for example, by allowing risk management market participants to tacitly collude.

3.3.5 If anonymity cannot be ensured then commercially sensitive information about the counterparties, such as their risk management strategy and any potential proprietary knowledge about innovative structures may be

deduced by competitors, suppliers or customers. The level of information disclosure must ensure that the anonymity of risk management market participants is maintained.

The Proposal

3.3.6 The proposed rule amendments require Participants to submit the following information regarding FPVV and CfD contracts for publication on the Information System:

- (a) trade date;
- (b) quantity;
- (c) grid zone area where the contract applies¹⁷;
- (d) effective date;
- (e) termination date;
- (f) contract price;
- (g) whether the profile of the contract is flat or variable (if applicable);
- (h) contract type;
- (i) whether there is an adjustment clause;
- (j) whether there is a force majeure clause;
- (k) whether there is a suspension clause;
- (l) whether there is a special credit clause (if applicable); and
- (m) whether it has any arrangement to pass-through certain costs, levies or tax (for example, some form of carbon related charges).

3.3.7 The rule amendments described in this Proposal will set out the information described above in such a way that risk management market participants are unable to be identified. This will be achieved through limited disclosure in certain areas and is described in Section 3.4 of this paper.

¹⁷ Noting that under some specific criteria contracts may be normalised to Haywards.

- 3.3.8 For Option contracts, Participants will only have to submit a sub set of the contract information (trade date; quantity; effective date; and termination date) for publication on the Information System. This approach will simplify the disclosure of Option contracts but enable the Commission to monitor the use of Option contracts and assess whether additional Option details, such as price, should be included as part of the disclosure regime. Paragraph 3.4.2 to 3.4.4 consider the disclosure of Option contracts in more detail.
- 3.3.9 It should be noted that a genuine forward price curve indicates the prices at which market participants are willing to trade at a series of dates in the future. The *Energyhedge* platform provides risk management market participants with one source for this information. The information that will be disclosed under this Proposal is derived from contracts that have already been entered into and therefore reflects historic conditions in the market. Nevertheless, risk management market participants can use this information to create historic contract curves for comparison with market offers or forward price curves. It is worth clarifying, the Rules will not be applied retrospectively to contracts that were transacted prior to the Rules coming into effect.
- 3.4 Specific issues with the information that will be disclosed through the Proposal

Which contracts will be disclosed?

- 3.4.1 There are a number of different types of contracts that parties can use to manage electricity price risk. In the New Zealand market, FPVV and contracts for differences are the two most commonly used contract types. Various option type contracts (Options) are also used, although the traded volumes are typically low.
- 3.4.2 The vast majority of contracts would be covered by requiring disclosure of FPVV and CfD contracts. Option contracts present an added complexity when considering disclosure because of the additional components that are included, such as the premium, and the array of types of option contracts that could be contained in a single deal. Given the low volume of option contracts currently traded in the market and the complexity associated with disclosure, the Commission does not believe that the benefits of fully disclosing options would outweigh the costs.

- 3.4.3 There is a risk that Participants will create Options to deliver the same outcome as either a CfD or a FPVV contract but avoid the disclosure regime. For example, a cap option and a floor option contract with the same strike price have the same outcome as a CfD at that strike price. Consequently, requiring only FPVV and CfD contracts to be fully disclosed leaves a potential loophole for Participants to avoid the requirements of any such rules.
- 3.4.4 To manage these complications, the Proposal requires Participants to disclose that an Option contract has been transacted but only a sub set of the contract information (trade date; quantity; effective date; and termination date) is published. This information will enable the Commission to monitor the use of Option contracts and assess whether additional Option details, such as price, should be included as part of the disclosure regime.
- 3.4.5 In order to allow for comparison, contracts will be defined as a CfD, a FPVV or an Option.

Q1. Do you agree with the Commission’s proposed approach to the disclosure of Options, as described in 3.4.4? If not, please explain why and outline what you consider to be a more appropriate approach?

Defining the electricity risk management counterparties and their responsibilities for disclosure

- 3.4.6 Another issue is how to define the scope of counterparties’ involvement, and particularly defining which counterparty has responsibility for providing the information to the Commission. The counterparties that are trading in the contracts are typically generator-retailers and large consumers. Generally, the generator-retailers will sell FPVV contracts to consumers.
- 3.4.7 In the case of CfDs and Options, there is no sale of physical electricity, and instead the terms “fixed price payer” and “floating price payer” are used. In order to ensure consistency between FPVV contracts, CfDs, and Options, the term “seller” has been defined in the proposed rules to include a seller of a FPVV contract and the floating price payer for a CfD. For a simple Options contract, the seller is the party that receives the premium payment. For more complex Options contracts, where a premium payment may not be included, the counterparties will need to

agree who will be the seller for the purposes of contract disclosure. Conversely, “buyer” has been defined to include a buyer of a FPVV contract, the fixed price payer for a CfD and the payer of the premium for an Options contract.

Figure 1: Defining risk management counterparties

	Buyer	Seller
FPVV	Buyer of contract	Seller of contract
CfD	Fixed Price payer	Floating Price payer
Option	Payer of premium	Receiver of premium

3.4.8 The range of risk management market participants that may be disclosed under this regime will be broader than the existing definition of “Participant” in the Rules. For example, FPVV purchasers will currently buy their electricity from a retailer and would not be identified as a Participant in the current definition in the Rules. The proposed rules are only enforceable for Participants (as defined in the Rules).

Responsibility for disclosure

3.4.9 The seller of a risk management contract would normally complete the drafting of the contract terms and conditions and have this information readily available. Therefore, if both counterparties are Participants, the seller has been given the obligation to submit the contract details to the Information System. If only one of the counterparties is a Participant, the Participant will be responsible for submitting the summary contract information. If neither counterparty is a Participant there would be no obligation to disclose CfDs, FPVVs, or Option contracts.

3.4.10 With the exception of FPVV contracts and Non-Participants, the counterparty that does not submit the contract information has an obligation to verify the published information. This verification process is described in more detail in the “Timeframe for providing information” section of this paper, from paragraph 3.4.64, and a flowchart is provided in Appendix G.

Term of the contract

- 3.4.11 There are three dates that are important in relation to contracts: the trade date (the date on which the parties agree to the terms of a contract), the effective date (the date on which the parties begin incurring obligations, such as fixed and floating payment obligations) and the termination date (when the contract terminates). However, contracts can be structured as to have multiple start dates or end dates for different parts of the contract.
- 3.4.12 One potential issue with disclosing the term of risk management contracts is that parties to long-term contracts may be identified if the contract duration is revealed. For instance, very large users may enter into long-term contracts for very large quantities at specific locations. Although the location will be somewhat disguised by referring to grid zone, see section on contract location (paragraph 3.4.28), the combination of grid zone and term of contract may lead to at least one of the counterparties being identified.
- 3.4.13 For CfDs and FPVV contracts, it is proposed to have different disclosure requirement for contracts of different terms. The objective is to provide meaningful information to the market, and to protect the anonymity of risk management market participants.
- 3.4.14 The HMDSG advised that the majority of contracts are less than five years in duration. The duration of a significant proportion of these contracts is less than two years. The volume of trades between two and five years, when divided between the fourteen grid zones, may not be sufficient to protect a participant's anonymity. Therefore, the information on contracts that are less than two years can probably be disclosed without significant anonymity concerns, but there is less certainty for longer contracts.
- 3.4.15 Most contracts for longer than five years are likely to have an adjustment or escalation clause, which already makes determining a future market price difficult. The combination of all these factors means that it is proposed that any contract longer than two years but less than ten years in duration will have the option of being disclosed as "between two and ten years".
- 3.4.16 For CfDs and FPVVs of a very long duration, greater than ten years, the contract is likely to be tailored to the specific requirements of the counterparties. This is likely to have a significant impact on the contract

price and make it of little relevance to the broader market. Inclusion of long-term contracts in the “between two and ten years” category may also distort analysis that is undertaken with this category of data. If the term of a contract is greater than ten years, the Proposal is that Participants will only have to disclose contract term and quantity (along with the other basic disclosure information such as trade date). This information will enable risk management market participants to assess the level of hedging in the market and use this information in assessing offers.

- 3.4.17 It is proposed that Contracts that are less than two years will require full disclosure. The number of contracts in this category is likely to be sufficient to protect risk management market participants’ anonymity.
- 3.4.18 Under the Proposal, Option contracts only require disclosure of a subset of contract information and do not include price or grid zone. It is proposed that all option contracts include full disclosure of contract term.

Q2. Do you agree with the Commission’s proposed approach of limiting the disclosure of contract term to two years or greater? Do you agree with only disclosing term and quantity for contracts that are longer than ten years? If not, please explain why and outline what you consider to be a more appropriate approach?

Contract quantity

- 3.4.19 The primary aim of the Proposal is to provide readily accessible information relating to risk management market contracts that are significant for the creation of historic contract curves. The vast majority of FPVV contracts are for smaller customers, although a few large consumers use FPVV contracts for the supply of their electricity. In creating historic contract curves, risk management market participants would exclude these low quantity FPVV contracts to ensure that they do not skew the relevance of the curve. To avoid unnecessary administration costs for small participants, the Proposal requires that only information for large FPVV contracts and CfDs above a certain quantity be disclosed.
- 3.4.20 Specifically, the proposed rules require that any FPVV contract that is the equivalent of a 0.25MW baseload CfD (greater than 2.19 GWh/annum) must be disclosed. There is no fixed quantity associated with a FPVV contract so a notional quantity will be allowed to be used for the purpose

of disclosure, provided it is determined on a reasonable basis. The notional quantity would be disclosed in MW and may require a time-weighted conversion from MWh. In the case of CfDs, all CfDs greater than 0.25MW will need to be disclosed.¹⁸ If a CfD has a variable profile the disclosure quantity should be a time-weighted average.

- 3.4.21 The Commission recognises that parties could enter into a number of smaller contracts rather than one large contract in order to avoid the requirement to provide information to the Commission. This behaviour is unlikely as it would require two parties to agree to adopt this approach. Although Participants may want a disclosure regime to gain access to information about other parties' contracts without having to disclose their own contracts, it is unlikely that Participants would be willing to risk any sanctions or reputational risk. Activity of this nature may be discovered through the audit process that is available to the Commission.
- 3.4.22 In addition, Participants will be relying on the dataset to formulate an historic contracts curve and will want to ensure that others are complying fully. If one party was found to not be complying, the resulting suspicion of other parties undermines the value of the information.
- 3.4.23 If it becomes apparent that small contracts will be used to avoid disclosure, the Commission will consider amending the Proposal to lower the disclosure threshold.
- 3.4.24 A further issue in relation to contract quantity is the potential identification of parties that have entered into the contracts. In particular, very large consumers (such as Rio Tinto) may enter into contracts in the order of hundreds of MW.
- 3.4.25 In order to avoid identification of the contract parties, the Proposal caps the disclosure quantity for CfDs and FPVVs as a quantity greater than 30MW for contracts that are longer than two years but less than 10 years. For example, a 200MW contract with a three year term will have the option of being disclosed as being greater than 30MW rather than the actual quantity of 200MW. The two year threshold has been proposed to capture

¹⁸ 0.25 MW is the size of EnergyHedge contracts, and has therefore been included here as the threshold to ensure disclosure of these contracts.

short-term inter generator contracts while maintaining anonymity for other risk management market participants.

- 3.4.26 The proposed 30MW cap was set following advice from the HMDSG regarding the volume of contracts that are likely to be greater than 30MW. The average MW demand for each of the grid zones and the nodes within each grid zone was also considered; and the values are contained in Appendix E. It is acknowledged that the physical consumption at the nodes does not necessarily indicate the contracting quantity but does give an indication of scale.
- 3.4.27 Option contracts only require disclosure of a subset of contract information and do not include price or grid zone. It is proposed that all option contracts include full disclosure of contract quantity.

Q3. Do you agree with the Commission's proposed approach to the disclosure of contract quantity? If not, please explain why and outline what you consider to be a more appropriate approach?

Contract location

- 3.4.28 Another issue that could lead to the identification of the contract counterparties is disclosing the location of the contract. This issue may be overcome by using regions to disclose the location. Before trying to define new regions it is worth considering whether existing regions may be appropriate.
- 3.4.29 The Rules currently define four zones: Upper North Island, Rest of North Island, Upper South Island, and Lower South Island. These are used for Voltage support. Although the Proposal could use these existing zones, the degree of granularity is insufficient to ascertain a meaningful historic contracts price curve at the locations within each zone.
- 3.4.30 However, Transpower currently uses fourteen "grid zones" for security purposes, with eight grid zones in the North Island, and six grid zones in the South Island. Details of the nodes within each grid zone are provided in Appendix D.
- 3.4.31 The Commission considers that the use of grid zones for referencing purposes is appropriate for the vast majority of risk management market

participants. Grid zones are defined in such a way to provide sufficient granularity for comparison purposes, but without providing enough detail for the identity of the majority of risk management market participants to be deduced. An analysis of the location factors within each grid zone shows that the standard deviation of each grid is within reasonable limits; this is provided in Appendix F. This indicates that risk management market participants could make reasonable assumptions about the comparability of contract prices within each grid zone.

- 3.4.32 The unique characteristics of some risk management market participants may mean that anonymous disclosure within their own grid zone is not practical. The approach that is adopted under this Proposal for CfDs and FPVVs is to set a threshold at which Participants will be entitled to normalise their contract price to a central node and disclose within this grid zone.
- 3.4.33 It is proposed that any Participant who has a contract term that is longer than two years will be entitled to normalise their contract price to Haywards and disclose their contract in Grid Zone 8. The normalisation threshold reflects the scale of risk management market participants who are likely to experience issues with anonymous disclosure. It should be noted that Participants are not obliged to adopt this normalisation and can disclose within the grid zone where the contract applies if they prefer.
- 3.4.34 Haywards is a useful grid point for normalisation because it is already used as a reference for some contracts, such as *Energyhedge*. The normalised contracts would be flagged as “normalised” when disclosed. The identification of normalised contracts will give risk management market participants the ability to exclude these contracts from calculations.
- 3.4.35 The draft rules provide that normalisation will be achieved by multiplying the contract price by the relevant historic location factor. The location factor will be the historic price ratio between the specific node and Haywards for the previous 12 months. This information will be published annually on the Commission’s website and would allow Participants to make the necessary adjustment to their contract price.
- 3.4.36 Option contracts would not require the disclosure of contract location.

Figure 2: Proposed criteria for disclosure of contract information for Contracts for Differences and Fixed-Price Variable-Volume Contracts

Criteria	Term	Quantity	Price	Zone
Greater than 10 years	Full disclosure	Full disclosure	No disclosure	No disclosure
Longer than 2 years but less than 10 years	Requirement to disclose with the option of disclosure being "longer than two years but less than 10 years"	Requirement to disclose with the option of disclosure being "greater than 30MW"	Requirement to disclose with the option of disclosure being the normalised price to Haywards	Requirement to disclose with the option of disclosure being at Haywards
All other contracts	Full disclosure	Full disclosure	Full disclosure	Full disclosure

3.4.37 Any Participant who believes that disclosure of a contract in their own grid zone would reveal their identity could apply for an exemption under the Rules.

Q4. Do you agree with the Commission’s proposed approach to the disclosure of contract location? If not, please explain why and outline what you consider to be a more appropriate approach?

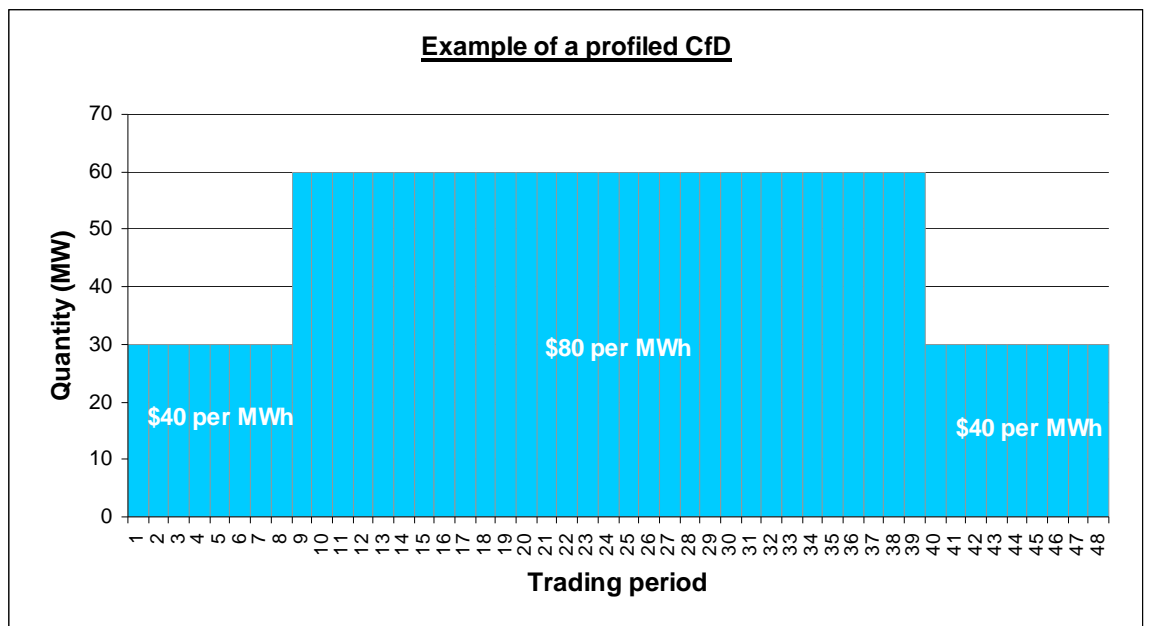
Contract price

3.4.38 Disclosure of contract price is potentially the most useful and also the most commercially sensitive item of information for Participants. However, comparison of prices becomes difficult between CfDs and FPVV contracts. FPVV contracts might include energy losses as well as an electricity component, while CfDs are based purely on the wholesale price of electricity. To overcome this issue, Participants would be able to use average losses (6.3%¹⁹) to normalise the FPVV price to a CfD equivalent when disclosing FPVV contracts. This issue would also be mitigated by the disclosure of contracts as either FPVV or CfDs. This will allow risk management market participants to select the types of contracts that they wish to include in their calculations.

¹⁹ <http://www.med.govt.nz/upload/41951/009-200609-g.pdf>

3.4.39 The issue described above is further complicated by the proposed inclusion of a contract profile. Profile refers to the potential for the quantity to change over the contract duration. While a large number of CfDs are baseload (have a flat profile), some contracts have variable quantities depending on the time of day and/or the month. In addition, some FPVW contracts use time-of-use (TOU) pricing with different prices throughout the day.

3.4.40 Although the most useful information for parties is the overall cost to purchase electricity, the complexity of TOU and variable-profile contracts means that it is difficult to present the information in such a way as to provide a precise comparison between contracts. However, it would be useful to provide some form of normalisation of contract price to assist risk management market participants in their comparisons.



3.4.41 One option is to present all information as a load weighted average (the price for each period is multiplied by the volume of electricity for each period, summed and then divided by the total volume). If we consider the profiled CfD that is represented in the graph above; the total cost for the energy consumed is:

$$= (\$40 \times 30\text{MW} \times 4 \text{ hours}) + (\$80 \times 60\text{MW} \times 15.5 \text{ hours}) + (\$40 \times 30\text{MW} \times 4.5 \text{ hours})$$

$$= \$84600$$

3.4.42 Therefore, the load weighted average for this CfD is the total cost divided by the total quantity of the risk management contract:

$$\begin{aligned} &= \$84600 / 1185\text{MWh} \\ &= \$71.39 \end{aligned}$$

3.4.43 This approach uses the total cost a Participant is likely to pay to create an average price. Unfortunately, the disclosure does not enable the market to understand how this price was constructed and depending on the load profile it could be over or underestimating the fair price of a baseload equivalent contract.

3.4.44 An alternative is to use a time weighted average price (the number of trading periods applicable at that price divided by the total number of trading periods). If we again consider the profiled CfD that is illustrated above the time weighted average price would be:

$$\begin{aligned} &= (17 \text{ trading periods at } \$40 + 31 \text{ trading periods at } \$80) / 48 \text{ trading periods} \\ &= \$65.83 \end{aligned}$$

3.4.45 The time weighted average calculation produces a price that is \$5.56 lower than would have been declared under the load weighting methodology. The time weighted approach is a more consistent method of normalising profiled CfD contracts back to baseload contracts because it removes the load variations from the calculation. In addition, it is simpler for Participants to calculate a time weighted average price than volume weighted.

3.4.46 Consequently, the Proposal is that all contracts that contain a profile will be presented as time-weighted averages. The Proposal for Options does not require the disclosure of contract price.

Q5. Do you agree with the Commission's proposed approach of using a time weighted average for disclosure of contract price? If not, please explain why and outline what you consider to be a more appropriate approach?

Contract profile

3.4.47 A large number of CfDs have a flat profile but some are variable. The disclosure of a contract profile as flat gives risk management market participants consistent information on which to compare contracts and create a historic contracts curve. The disclosure of a contract as variable is complicated by the significant differences that can be included within a profile. Any attempt to disclose the nature of the profile would be too

complex and the disclosure of contract price already factors in the profile. Therefore, it is proposed that CfDs will be disclosed as either flat or variable.

- 3.4.48 FPVV contracts are entered into on the basis of energy consumption changing over time. Risk management market participants will therefore assume that these contracts contain a profile and no additional disclosure is required. The proposal for Options does not require the disclosure of contract profile.

Adjustment clauses

- 3.4.49 Some CfDs and FPVV contracts include indexation or escalation clauses that vary the contract price. Some examples of factors that are used to vary price include CPI (consumer price index), historical energy prices or gas prices. The disclosure of the exact terms of any adjustment clauses would enable risk management market participants to understand how the contract price could change over time. However, adjustment clauses are often triggered after the contract has been in place for some time. At that point, the value of the disclosed information is reduced because the underlying market conditions are likely to have changed significantly.
- 3.4.50 For these reasons, the approach under this Proposal is simply to require parties to state whether the contract includes an adjustment clause, rather than requiring detailed disclosure of the specific adjustment clauses. Options do not require the disclosure of adjustment clauses.

Force majeure and suspension clauses

- 3.4.51 A number of CfDs and FPVVs include clauses that allow for the contract to be cancelled (or suspended) following specific events. "Force majeure" clauses allow for the contract to be suspended for acts-of-God such as earthquake, fire and flood. However, some risk management contracts also include "suspension clauses" which allow for the suspension of the contract under certain conditions which fall outside the traditional "acts-of-God". Suspension clauses can differ significantly and are often specific to certain equipment or locations. Consequently, full disclosure of the suspension clauses is likely to lead to at least one party to the contract being able to be identified.

- 3.4.52 The complexity associated with the disclosure of force majeure and suspension clauses means that a pragmatic approach is required. In addition, the high probability of a party to the contract being identified within a suspension clause requires a considered approach. Rather than requiring detailed disclosure under the Proposal, parties would be simply required to state whether the contract includes force majeure clauses and whether the contract includes suspension clauses.
- 3.4.53 As force majeure clauses are reasonably similar, parties will be able to make an assessment of the price implications when force majeure clauses are included. The effect a suspension clause has on the price of the contract will be more difficult to assess without knowing the details of the suspension clause. However, knowing if the contract includes such a suspension clause will help observers gauge the relative value of the contract compared to a contract without a suspension clause. The disclosure of a force majeure and suspension clause will also enable parties to simply exclude certain risk management contracts from their historic contracts curve.
- 3.4.54 Options do not require the disclosure of force majeure and suspension clauses.

Special credit clause

- 3.4.55 On entering a CfD contract both counterparties take on the credit risk that the other counterparty will default at some time during the term of the contract. A default is only of concern if the CfD will pay out to the counterparty that has not defaulted. To manage this counterparty risk special credit clauses can be added to the contract. For example, a long-term contract might include a clause to require a payment or bank guarantee when the mark-to-market amount reaches a certain threshold. For CfD contracts, it is proposed that Participants will disclose whether their contract includes a special credit clause. The proposal does not require the disclosure of a special credit clause for Option contracts.

Levies and tax pass through

- 3.4.56 Generally, any levies or taxes are passed through directly. With the possible introduction of a carbon related charge some CfD contracts have arrangements to pass through these costs. The proposed disclosure

regime will require Participants with FPVV or CfD contracts to state whether their contracts have this provision. The Proposal does not require the disclosure of levies and tax pass through for Option contracts.

- 3.4.57 The proposed approach for the disclosure of adjustment clauses, force majeure and suspension clauses, special credit clause, levies and tax pass through, is also supported by the HMDSG advice that most contracts do not contain any of these provisions.

Commercial sensitivity of the information

- 3.4.58 Risk management contracts are commercially sensitive in that the contracts provide detailed information regarding the effective price risk management market participants will be paying or receiving for electricity and the level of risk coverage. The proposed rules require parties that enter into such contracts to disclose summary contract information. However, the Commission is cognisant of the need to protect the identity of parties to the contracts as much as possible while still obtaining the desired results.
- 3.4.59 The Commission discussed these issues with the four submitters who raised concerns in their responses to the Original Consultation Paper. Typically, these risk management market participants have some unique characteristics that make anonymous disclosure of contract information under the original proposal unachievable. The Proposal variables for full disclosure could be amended further to reduce the maximum disclosure quantity, broaden the zones or reduce the maximum disclosure term. Although these changes maintain the same disclosure regime for all Participants, they would reduce the effectiveness of the Proposal to account for a small number of risk management market participants.
- 3.4.60 The approach that is adopted under this Proposal is to set a threshold for CfDs and FPVVs at which Participants will be entitled to normalise their contract price to a central node and disclose their contract details within this grid zone. Any Participant who has a contract longer than two years, but less than ten years, would be entitled to normalise their contract price to Haywards and disclose their contract in Grid Zone 8 (Wellington). This normalisation will be achieved by using historical location factors. The

threshold has been proposed to reflect the scale of risk management market participants who are likely to experience issues with anonymous disclosure. It should be noted that Participants would not be obliged to adopt this normalisation and could disclose within the grid zone where the contract applies if they prefer.

- 3.4.61 Any Participant who has a contract that is longer than ten years would only have to disclose the term and quantity. This is independent of the contract quantity and would not require the disclosure of a price or zone.
- 3.4.62 The Commission believes its Proposal strikes the appropriate balance between disclosure of contract information and the commercial sensitivity of risk management market participants' information.

Exemptions and dispensations

- 3.4.63 The previous section (paragraphs 3.4.58 to 3.4.62) outlined mechanisms designed to address the disclosure concerns that were raised by four submitters in their response to the Original Consultation Paper. This approach should remove the need for exemptions²⁰ or dispensations. However, any party who believes that disclosure of a contract under the Proposal would reveal their identity would be able to apply for an exemption under the Regulations.

Timeframe for providing information

- 3.4.64 Contract pricing is often very time-sensitive, as both spot market prices and contract prices can change significantly in a short space of time. Consequently, it is important that any contract information is provided as soon as possible after the trade date. Under the Proposal, if both counterparties are Participants, the seller would submit the summary contract information on the Information System within two business days after the trade date. If the seller is not a Participant, but the buyer is, the buyer would be required to submit the information within the same two business days timeframe. The information would be published with the

²⁰ Details on applying for an exemption - <http://www.electricitycommission.govt.nz/rulesandregs/exemptions/exemptinfo>

status flag set to “Unverified” and an alert would be sent to the other party asking them to verify the information.

- 3.4.65 For a CfD or Option contract, the counterparty that does not submit the contract information would have an additional two business days to confirm the accuracy of the contract information through the Information System. Non-Participants would have the right, but not the obligation, to provide this verification. On receipt of a verification the status flag would be updated to “verified”.
- 3.4.66 For CfDs and Options, if the contract information is not verified by the counterparty (if a Participant), within two business days the information would be flagged as “non-verified” but would change to “verified” in the event the information is provided. If a non-Participant doesn’t provide a verification notice within two business days the status flag would automatically be changed to “verified”. If the counterparty that did not submit the contract information disputes the information, the flag would be changed to “disputed”.
- 3.4.67 For FPVV contracts, it is likely that the buyer will only enter into risk management contracts occasionally and may not be a Participant. A requirement for all buyers to provide verification is therefore likely to be too onerous for many risk management market participants, may not be enforceable under the proposed Rules, increase the compliance overhead for the Commission and provide limited benefit. For these reasons, the other party under a FPVV contract would have the right, but not the obligation, to provide a verification. Unless the other party disputes the contract information the status would be automatically changed to “verified” after two business days.
- 3.4.68 If neither counterparty is a Participant there would be no obligation to disclose CfDs, FPVVs or Option contracts.
- 3.4.69 If the information disclosed is disputed, it is proposed that the information system would send the parties a notice requiring them to make all reasonable endeavours to resolve the dispute. If they were unable to resolve the dispute within ten business days, the Commission would be able to initiate a rules breach investigation under the Regulations. The Commission would be able to use the Information System to identify the contract parties. Rule breach investigations would only be able to be undertaken in respect of Participants.

- 3.4.70 This process ensures that contract information is published in a timely manner, but any person who may wish to use the disclosed information is aware that the information may be unverified or under dispute and can decide whether to exclude it from their historic contract curve. Flow diagrams that outline this process are included in Appendix G. The diagrams illustrate the process when both counterparties are Participants and when only one counterparty is a Participant. If the proposal is accepted, the Commission will monitor the timeframes for disclosure to ensure Participants are meeting the timeframes outlined in this section.
- 3.4.71 In the event that trades were struck through an electronic trading platform, that platform could have the functionality to immediately publish the contract details and pass the data to the Information System.
- 3.4.72 Given that Participants would have two business days to provide contract information, consideration was given to setting this as a minimum term for contract disclosure – Participants would not need to disclose contracts shorter than two days. Although it is possible that some very short-term contracts will have finished before they are disclosed, this will not be the case if the seller publishes the contract promptly. In addition, the current market price for any of the disclosed contracts may have changed by the time they are disclosed so it does not appear appropriate to discriminate on contract term. For these reasons no minimum threshold has been proposed for the disclosure of contract term.

Should trade date be disclosed?

- 3.4.73 As described in the previous section (paragraphs 3.4.64 to 3.4.72), the Proposal is to publish contracts on the Information System within two days of the trade date. Therefore the trade date can easily be deduced and the proposed approach is to require parties to disclose the exact trade date. In considering the disclosure of trade date an issue was raised regarding the relationship with tender activity. For example, a purchaser has recently completed a tender process and then a trade is disclosed for their grid zone that has a similar load and duration to the tender documents. Risk management market participants who were party to the original tender documents may be able to deduce the purchaser of the contract.
- 3.4.74 One option to address this concern would be to only disclose contracts on a monthly or quarterly basis but this would significantly reduce the value of

the disclosed information. The proposed rule amendments maintain the disclosure of the exact trade date but the Commission is seeking input from risk management market participants on this issue.

Q6. Do you agree with the Commission's proposed approach to the disclosure of trade date? If not, please explain why and outline what you consider to be a more appropriate approach?

Will contracts be disclosed retrospectively?

3.4.75 The disclosure of contract information is designed to provide risk management market participants with the necessary information to create an historic contracts curve. In order to form a meaningful view of market offers, risk management market participants require this information to be reasonably recent; this will ensure that there have been no significant changes in market conditions since the deals were struck.

3.4.76 Therefore, the disclosure of contracts that were in place before the Rules came into effect would provide limited additional value to the overall proposal. In addition, some existing contracts have non-disclosure clauses and it is not appropriate for new rules to impinge on these existing commercial arrangements. It is, therefore, proposed that there will be no requirement to retrospectively disclose contract information.

Amendments to contracts

3.4.77 If contracts are amended after the information is verified and published, such that the information originally published is no longer correct, it is proposed that the disclosing party must disclose the amended information to the Information System. The provision of the amended information would follow the process described in the section entitled "timeframe for providing information", paragraph 3.4.64. Any amendments to contracts that were transacted prior to the Rules coming into effect would not require disclosure.

Declaration and audit process

Self certification

3.4.78 The Electricity Commission would wish to obtain a level of assurance that Participants were complying with the established rules. To provide this assurance, Participants could be required to provide an annual declaration to the Commission, to be signed by company directors, stating that the contract information they have disclosed complies with the Rules. This declaration would be a simple statement and not require the inclusion of all contract details reported to the market for that year.

Audit of participants

3.4.79 To support the declaration process, it is proposed that the Commission be given the ability to audit Participants' disclosure of risk management contracts. The Commission could audit participants at its discretion. The audit would be conducted by an independent party.

3.4.80 The objectives of the proposed audits would be to provide a level of assurance that Participants are disclosing their contracts in accordance with the disclosure requirements.

3.4.81 The proposed changes to the Information System would need to include functionality to retrieve counterparty details for the investigation of specific trades. This functionality would be made available to the independent auditor but limited to the specific counterparties under investigation and only for the duration of the audit. It should be noted that under normal operation of the Information System the Commission would not be able to identify counterparties.

3.4.82 If the party investigated under the audit had performed its obligations there would be no charge to Participants for the audit. If the audit established that a Participant had not performed its obligations under the Rules, then that Participant would pay for the audit. Where the auditor believes the non compliance of a Participant's obligations is minor, the Commission could make an assessment regarding the proportion of the costs of the audit that would be paid by the Participant.

Annual audits

- 3.4.83 An annual audit process was also considered by the Commission. An annual audit process could run in parallel with Participants' annual financial statements audit processes. This is a similar approach to that adopted by the Commerce Commission regarding the audit of Lines company disclosures and would require the appointed auditor to provide a separate report to the Commission within a specified timeframe following the Participants' financial year end. As noted above, the audit report would provide an opinion stating whether the contract information has been disclosed in accordance with the disclosure requirements. Under this option the audit cost would reside with the Participant.
- 3.4.84 When compared with the proposed approach, annual audits are likely to only provide a small incremental benefit but introduce significant additional cost for all Participants. The audit approach, described in paragraph 3.4.79, was therefore preferred and is included in the Proposal.

Q7. Do you agree with the annual declaration and audit process described above?

Enforcement of the Rules

- 3.4.85 It should be noted that failure to disclose contract information or intentional disclosure of incorrect information by a Participant would be a breach of the Rules. The standard rules breach process²¹ would be used to resolve these issues. In this instance, the Commission would have access to all data provided to the Information System and investigated by the auditor.

Registering to use the Information System

- 3.4.86 As described in paragraph 3.4.8, the range of risk management market participants that will be involved in the disclosure of contract information under this Proposal will be broader than the existing definition of Participant in the Rules. For this reason, not all risk management market

²¹ <http://www.electricitycommission.govt.nz/rulesandregs/compliance/>

participants who may have contracts disclosed under the Proposal will currently be registered to use the Information System.

- 3.4.87 If the Proposal is accepted, the Commission will ensure that all risk management market participants will be able to register to use the contract disclosure functionality of the Information System. The Information System will enable contract verification and viewing of the other risk management contracts that have been published.
- 3.4.88 For risk management market participants who only purchase a small number of contracts, functionality would be developed in the Information System for a verification email to be sent to the buyer which includes a secure web link that will enable verification without the need for registration. As described in section 3.4.67, verification would not be required for FPVV contracts.

Display of contract information

- 3.4.89 The Proposal provides that Participants will submit summary contract information to the Information System. An example of the submission form is included in Appendix H. The Information System would then publish this information. The information would also be provided on COMIT Free To Air²².
- 3.4.90 The drafting of the Information System definition allows the Commission the flexibility to accommodate the proposed Rule amendments.

²² <http://www.comitfree.co.nz>

3.4.91 Figure 3 illustrates how the contract details could be presented. A unique identification number would also be generated for each contract that was disclosed.

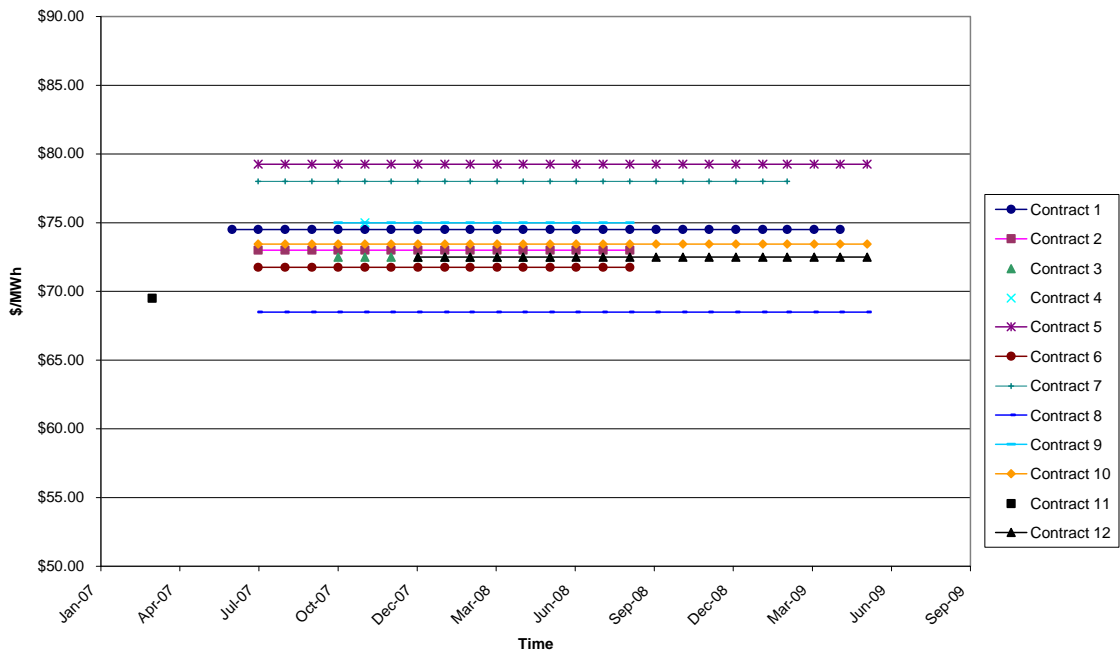
Figure 3: Presentation of contract information

No.	Contract Summary Information										Provisions					Normalised	Status
	Trade Date	Quantity (MW)	Grid zone area	Grid zone description	Effective Date	Termination Date	Term	Price (\$/MWh)	Contract Type	Profile	S1	S2	S3	S4	S5		
1	25/03/2007	5MW	1	Northland	1-Jun-07	1-Jun-09	2 years	\$74.50	CFD	Flat	No	No	No	No	No	No	Verified
2	25/03/2007	1MW	1	Northland	1-Jul-07	1-Oct-08	1 years, 3 months	\$73.00	CFD	Variable	No	No	No	No	No	No	Verified
3	25/03/2007	0.5MW	5	Hawkes Bay	1-Oct-07	1-Jul-08	9 months	\$72.50	CFD	Flat	Yes	No	Yes	Yes	Yes	No	Verified
4	25/03/2007	10MW	6	Taranaki	1-Nov-07	1-Dec-07	1 months	\$75.00	CFD	Variable	No	No	No	No	No	No	Verified
5	25/03/2007	1MW	2	Auckland	1-Jul-07	1-Jul-09	Longer than 2 years but less than 10 years	\$79.25	FPVV	-	Yes	Yes	Yes	No	No	No	Disputed
6	26/03/2007	1MW	2	Auckland	1-Jul-07	1-Oct-08	1 years, 3 months	\$71.75	CFD	Flat	Yes	No	No	No	No	No	Verified
7	26/03/2007	0.3MW	2	Auckland	1-Jul-07	1-Apr-09	1 years, 9 months	\$78.00	FPVV	-	Yes	No	No	No	No	No	Verified
8	26/03/2007	Greater than 30MW	8	Wellington	1-Jul-07	1-Jul-09	Longer than 2 years but less than 10 years	\$68.50	CFD	Flat	No	Yes	Yes	Yes	No	Yes	Verified
9	26/03/2007	10MW	6	Taranaki	1-Oct-07	1-Oct-08	1 years	\$75.00	CFD	Flat	No	No	No	No	No	No	Non-verified
10	26/03/2007	5MW	12	West Coast	1-Jul-07	1-Jul-09	2 years	\$73.45	CFD	Flat	No	No	Yes	Yes	No	No	Verified
11	26/03/2007	200MW	8	Wellington	27-Mar-07	30-Mar-07	3 days	\$64.25	CFD	Flat	No	No	No	No	No	No	Verified
12	26/03/2007	-	3	Hamilton	1-Jan-08	1-Jul-09	1 years, 6 months	\$72.50	FPVV	-	No	No	No	No	No	No	Unverified
13	27/03/2007	2MW	9	Nelson	1-Oct-07	1-Oct-08	1 years	-	Option	-	-	-	-	-	-	No	Verified

Standardised Contract
 Schedule 1: Adjustment
 Schedule 2: Force Majeure
 Schedule 3: Suspension
 Schedule 4: Special Credit Clause
 Schedule 5: Levies / Tax Pass Through

3.4.92 Functionality would be provided in the Information System for risk management market participants to filter the published information on any combination of the disclosure parameters and download the results. Basic graphing functionality would also be provided to display the filtered information.

Figure 4: Graphical Display of contract information



- 3.4.93 The Commission would not include any judgement about the price impact of the provisions in the publication of this graph. This approach has been proposed because decisions regarding the impact of contract provisions, and the effect other market variables have on price, are best made by each organisation rather than centrally.

Q8. Do you agree that the Information System is the most appropriate location for the publication of contract information?

Q9. Do you broadly agree with the proposed publication format displayed in Figure 3?

Q10. Do you believe that there is benefit in basic graphing functionality as displayed in Figure 4?

If you disagree with any of these approaches, please explain why and outline what you consider to be a more appropriate approach?

3.5 Statement of reasons

- 3.5.1 A rules-based approach has been adopted for this Proposal because a voluntary mechanism is unlikely to provide sufficient information about the risk management market. The mandatory nature of the Proposal will ensure that the summary details of all contracts that parties use to create historic contract curves will be made publicly available.
- 3.5.2 In developing the Proposal a careful balance has been struck between the information needs of risk management market participants and the commercial requirements of Participants in the physical electricity market. The disclosure parameters that have been selected should provide anonymity to all risk management market participants, while still addressing the objectives of the Proposal:
- (a) the lack of robust information available to risk management market participants; and
 - (b) the general lack of confidence in the competitiveness of the risk management market.
- 3.5.3 Broader disclosure parameters, such as disclosure of the individual contract node and exact volume and term, would also achieve these

objectives but would compromise risk management market participants' anonymity. The commercial implication for these parties is difficult to quantify but several submitters to the Original Consultation Paper raised it as a concern.

3.6 Assessment of the reasonably practicable options

3.6.1 Section 172F(1) of the Act requires the Commission to seek to identify all reasonably practicable options for achieving the objective of the Proposal.

3.6.2 Five reasonably practicable options were identified. These options are described below and a preliminary assessment is provided.

- (a) **Energyhedge** - The *EnergyHedge* platform currently provides the only publicly available genuine forward price curve for the risk management market by publishing bid and offer prices for three years into the future. However, as previously outlined, the vast majority of trades are not struck through this platform and risk management market participants have questioned whether the forward price curve observed on *EnergyHedge* is robust.

During the development and submission process for the Original Consultation Paper the owners of *Energyhedge* indicated that they would continue to develop their platform to offer a wider range of products and try to increase the volume of trading. This may enhance the value of the *Energyhedge* forward price curve but this initiative could take time to develop and would be complementary to the disclosure of contract information.

EnergyHedge also currently publishes details of all contracts traded on the *EnergyHedge* platform. However, *EnergyHedge* contracts are only a small fraction of the risk management market. Publication of information from OTC contracts would provide an important additional information source to risk management market participants. This OTC information would help risk management market participants in making risk management decisions and improve overall confidence in the market

- (b) **Voluntary disclosure** - To achieve the publication of OTC contracts the Commission could request that parties voluntarily disclose contract information. There is likely to be some resistance to this

request for voluntary disclosure, particularly from parties that believe they would be able to be identified and consider that the contracts are commercially sensitive. A number of contracts also contain non-disclosure clauses. Given that there may be legal impediments to parties voluntarily providing such information, the Commission is of the opinion that a mandatory requirement is important for parties to get sufficient information about the risk management market. The implementation of Rules that require mandatory disclosure will override any non-disclosure provisions contained in risk management contracts.

- (c) **Full disclosure** - In developing the rules-based Proposal it was apparent that the selection of disclosure parameters would have a significant effect on how the disclosure regime would be implemented and received by risk management market participants.

To assess all combinations of the disclosure parameters would require a significant level of analysis. Rather than adopting this approach, the Commission has instead considered various points along the disclosure continuum.

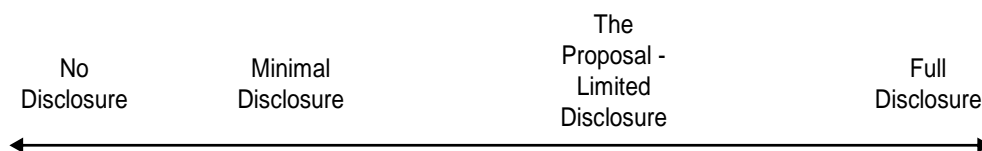


Figure 5: Disclosure Continuum

Full disclosure would require all Participants to disclose an electronic copy of their full risk management contract to the Information System. The names would be removed from these contracts to provide some anonymity.

Participants would still be required to publish contract summary information and a link to the full risk management contract would be provided. Risk management market participants could use this more detailed contract information to refine their historic contracts curve.

As discussed in section 3.4, full publication of contract information, such as suspension clauses that are often specific to certain equipment or locations, is likely to lead to at least one party to the contract being able to be identified. For this reason full disclosure is

likely to be opposed by risk management market participants and may result in unintended consequences if mandated through regulation.

The Commission believes that, relative to the Proposal, full disclosure will add little additional benefit to achieving the Proposal objectives and does not consider it a practicable alternative to the Proposal.

- (d) **Minimal disclosure** - An alternative approach is simply for Participants to disclose the term and the quantity of the contract. This information would enable risk management market participants and policy makers to assess the level of hedging that has occurred in the market. Although this information would provide a useful indicator for market activity, it would not provide sufficient information to create historic contract curves.

The inability to create historic contract curves means that minimal disclosure would not deliver the Proposal objectives and is not considered a practicable alternative to the Proposal.

- (e) **No disclosure** – This approach is the status quo. Given the strong support from submitters for the Proposal during the initial round of consultation and the Proposal’s objectives, this is considered a practicable alternative to the Proposal but is not favoured. The cost benefit analysis uses this option as a comparison benchmark.

3.7 Assessment of costs and benefits

Overview

3.7.1 The Proposal is likely to produce net economic benefits for New Zealand. Publishing contract details should facilitate more efficient risk management decision making by:

- (a) enabling risk management market participants to create historic contract curves for comparison with market offers and forward price curves;
- (b) facilitating more efficient use of brokers; and

- (c) encouraging greater use of standardised derivatives, which in turn may facilitate lower transaction costs and more efficient levels of market trading and liquidity.

3.7.2 The improvements described above should help purchasers when comparing market offers and assist them in selecting the most competitive offer, which would place greater competitive pressure on contract sellers. Also, increased transparency should increase confidence in the competitiveness of the risk management market, which would benefit both purchasers and generators. In either case, the efficiency gains are likely to be relatively large.

Economic rationale

3.7.3 The economic rationale for regulating the publication of contract details rests on the view that individual contracting parties have strong commercial incentives to keep private the details of their own contracts, but they will all benefit from access to robust information about historic contract prices in the market. Therefore, publication of historic contract details is unlikely to occur in New Zealand without a regulatory requirement to publish the key details of most risk management contracts. The proposal to require mandatory publication of historic contract details seeks to overcome this divergence between private and public interests.

3.7.4 The benefits of the Proposal arise in regard to the direct effects of increasing information about risk management market activity on market behaviour, and indirect effects arising from how this information affects perceptions about market power, or the exercise of market power if it exists.

Benefits

3.7.5 Benefits have been identified in four key areas:

- (a) Increased confidence in the risk management market;
- (b) More accurate and timely assessment of market offers;
- (c) More efficient use of standardised CfDs; and
- (d) Better informed policy-making.

3.7.6 These benefits are described and evaluated in the following sections.

Increased confidence in the risk management market

- 3.7.7 On the basis that concerns about market power are misperceived, then publishing contract details would help dispel misperceptions and increase confidence in the competitiveness of the risk management market. This should lead to more efficient participation in the risk management market generally, and CfD particular, because electricity users will be more confident they are getting a fair deal. This should stimulate more efficient levels of depth and liquidity in more sophisticated risk management products, such as CfD.
- 3.7.8 Greater confidence in the competitiveness of the risk management market may also reduce implicit barriers to entry in the retail market, potentially spurring more competitive retail market outcomes in areas where contracts cover both the risk management market and the spot market.
- 3.7.9 Publishing contract details may assist with more timely and accurate estimates of the forward price curve. If this occurs, greater competitive pressure on sellers would arise because the price of contracts could be easily compared. This would facilitate more efficient risk management decisions by purchasers.
- 3.7.10 Publishing contract details may also make it easier for purchasers and regulators to analyse risk market information to detect any instances of generators exercising market power. Under current arrangements, a special investigation would be required to empirically investigate and assess market power in the risk management market, as few contract prices or other details are available.
- 3.7.11 Increasing the quantity of detailed information available to regulators will increase the probability that illegal exercise of market power will be detected, in the event that it ever arises. This, in turn, is likely to encourage any generators and related parties with market power to avoid making offers that constitute (or give the impression of constituting) an exercise of market power.
- 3.7.12 These considerations suggest that if some generators exercised market power under current risk market arrangements, their ability to do so would likely be substantially eroded by this initiative, and would flow through to more competitive pricing in the physical market. This could occur because

generators without contracts would be more likely to compete at the margin in order to ensure they were dispatched.

- 3.7.13 There are undoubtedly benefits in this area but the uncertainty surrounding the current level of market confidence and existence, if any, of market power, make the quantitative assessment difficult.

More accurate and timely assessment of market offers

- 3.7.14 Publishing contract details will provide risk management market participants, including third parties such as brokers, with timely access to the information for creating historic contract curves. The accurate and timely creation of historic contracts curves should assist risk management market participants with the more efficient comparison of contract prices. The historic contract curves should also allow risk management market participants to formulate their own risk management strategies more efficiently.

- 3.7.15 The greater level of information available on risk management market activity may stimulate greater brokering activity. Brokers and advisers will be able to use the disclosed information to prepare estimates of forward price curves and sell that information to consumers, along with general monitoring and contract negotiation services. There is a small risk that brokers may be used less because their knowledge of market activity will now be less valuable to their clients.

- 3.7.16 Whatever the outcome, brokering activity will be more efficient because it will be less about access to privileged market knowledge and more about reducing transaction costs through efficient contracting activity.

- 3.7.17 The main economic benefit is to reduce the time required for a participant to create historic contract curves and assess market offers. With limited information currently available on the volume of trades it is difficult to accurately assess these benefits but the following section provides an estimate.

- 3.7.18 It is assumed that on average a participant creates a forward price curve five times a year. It is estimated that there are approximately 150 parties who could be active in the risk management market. The introduction of this Proposal saves risk management market participants approximately

two hours in the creation of each of their forward price curve at an hourly rate of \$60 per hour.

3.7.19 The total economic value per annum for the market is:

$$\begin{aligned} &= 5 \times 150 \text{ participants} \times 2 \text{ hours} \times \$60/\text{hour} \\ &= \$90,000 \end{aligned}$$

3.7.20 It could also be argued that, with more accurate information, risk management market participants will be able to improve the price at which they transact a risk management contract. The two sided nature of this arrangement, when one party improves its price the other party's worsens, indicates that this is simply a wealth transfer and should not be included in our economic assessment.

More efficient use of standardised CfDs

3.7.21 Greater transparency regarding derivatives may trigger a series of market developments that achieve more efficient use of standardised derivatives. For example, greater transparency may stimulate greater demand for comparability across contracts, which in turn may stimulate more efficient contract structures. One example would be the unbundling of baseload and peak load requirements. The end result would be more efficient participation in standardised derivatives markets.

3.7.22 In addition, parties might have greater confidence in the market and be more willing to participate in it. This could result in parties being more willing to move away from FPVV contracts onto derivative contracts, thereby increasing the liquidity of the derivatives market. Greater liquidity will give parties greater confidence around trading and result in more efficient managing of contract positions. This could facilitate greater activity from parties who currently trade in CfDs and Options. For example, industrials might sell back risk management cover during an outage.

3.7.23 The transition of risk management market participants from FPVV to CfD contracts could have two main consequences:

- (a) **Improved CfD Prices** - The unspecified quantity of an FPVV contract requires generators to allocate a greater proportion of their generation capacity than they would have under a CfD contract.

Consequently, a generator will price this additional capacity allocation into its FPVV price. The transition of customers from an FPVV to a CfD would allow a generator to improve the management of its capacity by offering a CfD at a specific quantity and then offering the additional capacity allocation as another CfD. These changes will likely result in the generator offering purchasers an improved price.

The quantification of the economic benefits of the price improvement described above is extremely difficult but the following text provides an estimate. The current value of annual consumption in the New Zealand electricity spot market is approximately \$3.3 billion²³. The approximate consumption split for this market is 33% residential, 45% industrial and 22% commercial²⁴. The high level of vertical integration in the New Zealand market²⁵ means that, with the exception of TrustPower, retailers do not require a high level of hedging to cover their retail base. To simplify the calculations we have removed generator-retailers' consumption completely. Consequently, the value of the consumption that would be active in the risk management market is:

$$\begin{aligned} &= 67\% \text{ of } \$3.3 \text{ billion} \\ &= \$2.2 \text{ billion.} \end{aligned}$$

We have estimated that 80%²⁶ of the market currently has risk management cover and that the products are evenly split between FPVV and CfD contracts. If 1% of the risk management market switch from FPVV contracts to CfDs we might assume that the average price improvement in the energy component of the price is 1%.

²³ Total Retail Sales - Page 22 of MED Energy Data File June 2007 - <http://www.med.govt.nz/upload/48437/009-200707-g.pdf>

²⁴ Consumption by Sector for 2006 March Year - Page 4 of MED Energy Data File June 2007 - <http://www.med.govt.nz/upload/48437/009-200707-g.pdf>. It should be noted that these splits are based on consumption rather than value but do provide an approximation for estimation purposes. A split by value is not readily available.

²⁵ Page 37 of <http://www.electricitycommission.govt.nz/pdfs/opdev/wholesale/market-design/Electricity-markets.pdf>

²⁶ Para 230 of Market Design Review - <http://www.electricitycommission.govt.nz/pdfs/opdev/wholesale/market-design/Market-Design-Review.pdf>

The total economic benefit is therefore:

$$\begin{aligned} &= \text{Value of risk management market} \times \% \text{ of risk management} \\ &\quad \text{cover} \times \% \text{ change from FPVV to CfDs} \times \% \text{ price improvement} \\ &= \$2.2 \text{ billion} \times 80\% \times 1\% \times 1\% \\ &= \$176,880 \end{aligned}$$

- (b) **Improved demand response** - An important characteristic of CfDs is that, in general, they do not alter the holder's incentives to respond to spot price signals. For example, a consumer holding a CfD at a contract price of \$70 has strong incentives to reduce demand in the spot market even though it is protected from the financial effects of prices exceeding \$70. The reason for this outcome is that the quantity of energy covered by the CfD is fixed in the contract. It is a nominated level of energy cover, not their actual level of consumption. Hence, holders of CfDs receive pay-outs based on the nominated quantity regardless of how much electricity they consume²⁷.

In contrast, FPVV contracts provide protection against price movements but remove financial incentives for parties to respond to spot prices. This can make CfDs a more efficient risk management tool for medium to large consumers where electricity forms a high proportion of their costs²⁸. Again, it is difficult to assess the economic benefit of the improved demand response resulting from this change but the following text provides an estimate.

The annual load for the New Zealand market is approximately 38TWh²⁹. The previous assumptions regarding the percentage of the market that is covered by risk management contracts and the percentage of those contracts that will move from FPVV to CfDs are used again. An estimate of 15%³⁰ has been used for the difference

²⁷ The one exception to this result is when an individual CfD holder can influence spot prices by changing their electricity consumption/generation.

²⁸ See paragraph 116 of the Hedge Market Issues and Options Paper for a more detailed explanation - <http://www.electricitycommission.govt.nz/pdfs/opdev/wholesale/pdfsconsultation/Hedge-techpaper-amended.pdf>

²⁹ Total Consumption - Page 22 of MED Energy Data File June 2007 - <http://www.med.govt.nz/upload/48437/009-200707-g.pdf>

³⁰ Commission information sources

between the average energy component of a FPVV contract and the spot market price. \$54/MWh will be used for the average spot market price and has been calculated using the period from June 2006 to May 2007³¹. This would result in a FPVV price of \$63.53/MWh³² and a price difference of \$9.53/MWh.

The price elasticity of demand is assumed to be 0.11³³. This was derived from a Californian study of demand elasticity. Demand elasticity of 0.11 means that if price increases by 100%, demand will reduce by 11%. Similarly, if price increases by 50%, demand will reduce by 5.5%.

The welfare gain associated with this change equates to half the change in load multiplied by the change in price.

Change in Load = Total Load x % of risk management cover x % change from FPVV to CfDs x % change in price from FPVV to spot market price x elasticity of demand

$$\begin{aligned} &= 38 \text{ TWh} \times 80\% \times 1\% \times 15\% \times 0.11 \\ &= 5,016 \text{ MWh} \end{aligned}$$

$$\begin{aligned} \text{Welfare Gain} &= 50\% \times \text{change in load} \times \text{change in price} \\ &= 50\% \times 5,016 \text{ MWh} \times \$9.53/\text{MWh} \\ &= \$23,900 \text{ per annum} \end{aligned}$$

Better informed policy-making

3.7.24 As alluded to above, publishing the details of OTC CfDs provides more information to competition regulators, which should result in better-informed competition decisions. Any competition interventions should therefore be more predictable, reducing regulatory risk for all risk management market participants. This should create a wide range of economic benefits, as more efficient investment occurs in response to lower risk premiums for investors.

³¹ Average Monthly Prices Worksheet - http://www.comitfree.co.nz/fta/media_releases.home

³² $(\$54/(100\%-15\%)) \times 54$

³³ Goldman, Hopper, Sezgen, Moezzi and Bharvirkar. June 2004. Customer response to day-ahead wholesale market electricity prices: Case study of RTP program experience in New York. Ernest Orlando Lawrence Berkeley National Laboratory.

- 3.7.25 Similar effects arise from the effect the Proposal has on purchasers' concerns about market power. By dispelling those misperceptions (if that is what they are), the Proposal reduces the risk of inefficient regulatory interventions in the risk management and spot markets because it reduces external pressure on regulators to impose interventions.
- 3.7.26 Again, it is difficult to assess how much the disclosure of contract details will improve these areas relative to the status quo. Benefits are likely to be relatively small.

Costs and risks

- 3.7.27 The Proposal imposes direct costs on Participants, in the form of compliance and administration costs, and has some potential to impose indirect costs on consumers and risk management market participants by altering the behaviour of contracting parties.

Administration and compliance costs

- 3.7.28 The service provider of the Information System has initially indicated that the Proposal should be straight-forward in practical terms. Some IT development expenditure would be required to introduce the functionality on the existing Information System or develop a dedicated web page with the necessary security and functionality. The expected cost of introducing the basic functionality of the Proposal on the Information System is not greater than \$10,000. No additional ongoing IT cost is expected from the Proposal.
- 3.7.29 The Proposal would impose regular ongoing costs on buyers and sellers of contracts to comply with the information disclosure rules. Assuming that five trades are completed each business day (250 per year) and 15 minutes are spent by each counterparty uploading and verifying the trade, the cost can be estimated as:
- 3.7.30 Annual compliance cost = $5 \times 250 \times 0.25 \times \$60 \times 2 = \$37,500$
- 3.7.31 The hourly rate in this calculation is consistent with the previous estimate, \$60 per hour.

- 3.7.32 There are also ongoing administrative costs for the Commission in regard to paying for auditors, when required, and enforcing the new rules via the Rulings Panel. The estimated annual cost is \$10,000 per annum.

Collusion risks

- 3.7.33 The benefits subsection of this paper considered the effects of the Proposal on collusive behaviour, if it already exists. The alternative scenario is there is currently no collusion because it is difficult for generators to observe OTC prices. Under this scenario, publication of contract details could increase the potential for collusion by providing information for generator-retailers to observe their competitors' pricing in the OTC market.
- 3.7.34 These risks are considered to be minimal because generators would not know the counterparties to the pricing information, and so would have limited ability to punish competitors. Regulators would also obtain greater information on OTC prices, and so would be better placed to monitor and take action against any collusive behaviour.

Disinformation risks

- 3.7.35 With a requirement to publish contract details, there is a risk of related parties (or colluding parties) striking dummy contracts with prices, quantities and other terms set specifically for the purpose of creating incorrect forward price expectations in the market. However, this type of collusion is unlikely to occur, as it is illegal under the Fair Trading Act 1986.

Enforcement risks

- 3.7.36 Although it is proposed that there would be an audit process available, there is a risk that some Participants might seek to conceal their contract information by contracting in a way that distorts the published information. An example would be, striking an Option that commences one day after the trade date so only the reduced sub-set of information needs to be disclosed. If Participants acted in this way it would make price disclosure ineffective as a means of enhancing market transparency.
- 3.7.37 Another risk is that some parties might strike contracts and agree not to disclose the presence of those contracts, breaching the Rules. This is very unlikely as it would require two parties to agree to withhold. Although

purchasers may want disclosure to gain access to information about other parties' contracts without having to disclose their own contracts, it is unlikely that generators or purchasers would be willing to risk any sanctions or reputational risk. In addition, Participants would be relying on the dataset to formulate robust historic contract curves and would want to ensure that others are complying fully – if one party was found to not be complying, the resulting suspicion of other parties undermines the value of the information.

- 3.7.38 All these risks are considered to be minimal; as such behaviour is illegal and readily detectable in the small New Zealand environment.

Other costs and risks

- 3.7.39 As this Proposal requires the introduction of new rules, there is a risk of 'regulatory creep' occurring where additional rules and additional layers of complexity are added to the Proposal over time. This would result in additional costs, and reduce market evolution and innovation.
- 3.7.40 This risk is minimal because risk management market participants would have the opportunity to oppose the introduction of new rules through the consultation process.

Cost Benefit Summary

3.7.41 Table 1 summarises the costs and benefits associated with this Proposal.

Table 1: Cost benefit summary

Direct benefits	One-off	Annual
Activity involved in creating a historic contracts curve		\$90,000
More efficient use of standardised derivatives		
(a) – Improved CfD Prices		\$176,880
(b) – Improved Demand Response		\$23,900
Indirect benefits		
Increased confidence in the risk management market		Medium positive - Not estimated
Better informed policy-making		Small positive - Not estimated
Costs		
Administration and compliance costs	\$10,000	\$47,500
Collusion risks		Negligible
Disinformation risks		Negligible
Enforcement risks		Negligible
Other costs and risks		Negligible
Total	-\$10,000	\$243,280

3.7.42 The 10-year net present value (NPV) for the Proposal would be approximately \$1.7million. For the detailed calculations see Appendix I.

3.7.43 This NPV calculation does not include the indirect benefits resulting from the Proposal. This approach has been adopted because these benefits are extremely difficult to assess and the Proposal's NPV is positive without the inclusion of indirect benefits. It is however worth noting that increased confidence in the risk management market resulting from this Proposal may deliver significant increases to the NPV.

Q11. Do you agree with the Commission's cost benefit assessment? If not, please explain why and outline what you consider to be a more appropriate approach or set of assumptions?

3.8 Proposed rule amendments

3.8.1 As set out above, the Proposal consists of changes to the Rules to mandate the disclosure and publication of risk management contracts that are captured by the specific criteria. The proposed rule amendments are detailed in Appendix A.

3.9 Conclusion

3.9.1 This Proposal would provide the information about the risk management market that participants require to create historic contract curves. Risk management market participants could use this information to assess market offers and for comparison with forward price curves. The Proposal would achieve this outcome without distorting the market or affecting the commercial position of risk management market participants.

Appendices

Appendix A. Recommended rule amendments

Disclosure of contract details

The proposed amendments to the Rules are outlined below. It is proposed that they be included as a new part of the Rules.

PART K: HEDGE MARKET RULES

Section I Hedge Arrangement Disclosure Rules

1. Purpose of this section

The purpose of this section is to provide for disclosure of information about **risk management contracts**, which may be **contracts for differences**, **fixed-price variable-volume contracts** or **options contracts**, in order to:

- 1.1 facilitate ready comparability of **electricity prices** and other key terms;
- 1.2 address the lack of information available to persons to formulate their own historic contract curves for **electricity**; and
- 1.3 provide a more informed basis for persons to assess the competitiveness of the market for **risk management contracts** in respect of **electricity**.

2. Parties required to submit information

The following **parties** to **risk management contracts** are required to submit the information specified in rules 3, 7 and 8:

- 2.1 the **seller**, if the **seller** is a **participant**; or
- 2.2 the **buyer**, if the **buyer** is a **participant** and the **seller** is not a **participant**.

3. Information that must be submitted

- 3.1 The following information must be submitted to the **information system** in relation to every **contract for differences** or **fixed-price variable-volume contract**:
 - 3.1.1 whether the contract is a **contract for differences** or a **fixed-price variable-volume contract**;
 - 3.1.2 **trade date**;

3.1.3 **effective date;**

3.1.4 in relation to the **term** of the contract:

3.1.4.1 if the **term** of the contract is equal to or exceeds 2 years but is less than 10 years, either:

- (a) the **termination date**; or
- (b) that the **termination date** is equal to or exceeds 2 years but is less than 10 years; or

3.1.4.2 in all other cases, the **termination date**.

3.1.5 in relation to **contract price**:

3.1.5.1 if the **term** of the contract is less than 2 years, the **contract price** determined in accordance with rules 4 and 5 (if applicable);

3.1.5.2 if the **term** of the contract is equal to or exceeds 2 years but is less than 10 years, either:

- (a) the **contract price** determined in accordance with rules 4 and 5 (if applicable); or
- (b) provided rule 3.1.7.2 is complied with, the **contract price** determined in accordance with rules 4 and 5 (if applicable) and adjusted to the Haywards **node** in accordance with rule 6; and

3.1.5.3 if the loss adjustment factor specified in rule 4 has been applied, that this has occurred.

If the **term** is greater than 10 years, no submission of contract price is required.

3.1.6 in relation to **quantity**:

3.1.6.1 if the **term** of the contract is equal to or exceeds 2 years but is less than 10 years and the **quantity** exceeds 30MW, either

- (a) that the **quantity** is greater than 30MW; or
- (b) the **quantity**; or

3.1.6.2 in all other cases, the **quantity**.

3.1.7 in relation to **grid zone area**:

- 3.1.7.1 if the **term** of the **contract** is less than 2 years, the **grid zone area** in which the **contract price** is determined or applies;
 - 3.1.7.2 if the **term** of the contract is equal to or exceeds 2 years but is less than 10 years and the **contract price** is adjusted under rule 3.1.5.2(b), **grid zone area 8**; or
 - 3.1.7.3 if the **term** of the contract is equal to or exceed 2 years but is less than 10 years but no adjustment of the **contract price** is made under rule 3.1.5.2(b), the **grid zone area** in which the **contract price** is determined or applies;
 - 3.1.8 in respect of a **contract for differences**, whether the **profile** is flat or variable;
 - 3.1.9 whether there is an **adjustment clause**;
 - 3.1.10 whether there is a **force majeure clause**;
 - 3.1.11 whether there is a **suspension clause**;
 - 3.1.12 in respect of a **contract for differences**, whether there is a **special credit clause**; and
 - 3.1.13 whether there are any other clauses providing for the pass-through of certain costs, levies or tax or some form of carbon-related cost.
- 3.2 The following information must be submitted to the **information system** in relation to every **options contract**:
- 3.2.1 **trade date**;
 - 3.2.2 **effective date**;
 - 3.2.3 **termination date**; and
 - 3.2.4 **quantity**.
- 3.3 The information specified in rules 3.1 and 3.2 must be submitted in the form specified by the **Board** and in accordance with rule 10.1.

4. **Loss adjustment factor**

For **fixed-price variable-volume contracts**, the price or prices under the contract may be multiplied by a loss adjustment factor of 0.063 to determine the **contract price** required to be submitted under rule 3.

5. Calculation of time-weighted prices

If more than one price is specified in a **contract for differences** or a **fixed-price variable-volume contract**, the **contract price** required to be submitted under rule 3 must be calculated on a time-weighted basis by:

- 5.1 determining the number of **trading periods** during which each price applies;
- 5.2 multiplying each price by the number of **trading periods** that it applies to;
- 5.3 adding the totals of the calculations under rule 5.2; and
- 5.4 dividing the result by 48.

6. Adjustment of contract price to Haywards node

- 6.1 Any adjustment of the **contract price** under rule 3.1.5.2(b) must be made by multiplying the **contract price** by the factor for each **grid zone area** that is **published** by the **Board** annually on the **information system** for the purposes of this rule.
- 6.2 The factors **published** by the **Board** on the **information system** under rule 6.1 will be the historic price ratio between each **grid zone area** and the Haywards **node** for the 12-month period preceding the month prior to the date on which the factors are **published**.

7. Other information that must be submitted

- 7.1 The following information must be submitted to the **information system** in relation to every **risk management contract**:
 - 7.1.1 each **party's** legal name; and
 - 7.1.2 each **party's** email address for notice.
- 7.2 The information must be submitted in accordance with rule 10.1.

8. Modified or amended information

- 8.1 If a modification or amendment is made to a **risk management contract** after the information referred to in rule 3.1, or rule 3.2, or rule 7, has been submitted to the **information system** and the effect of the modification or amendment is that the information submitted to the **information system** is no longer correct, the modified or amended information must be submitted to the **information system**, as appropriate.
- 8.2 The information submitted under rule 8.1 must:
 - 8.2.1 identify in each case the particular information that has been modified or amended; and

8.2.2 be in the form specified by the **Board**.

8.3 The information under rule 8.1 must be submitted in accordance with rule 10.2.

9. Correction of information

If a **party** discovers that any information submitted by it to the **information system** pursuant to this section was incorrect or incomplete, that **party** must submit the correct information to the **Board** in accordance with rule 10.3.

10. Timeframe for submitting the information

10.1 The information specified in rules 3.1, or rule 3.2, or rule 7 must be submitted to the **information system** no later than 5pm, 2 **business days** after the **trade date**.

10.2 The modified or amended information under rule 8.1 must be submitted to the **information system** no later than 5pm, 2 **business days** after the amendment or modification to the **risk management contract** is made.

10.3 The **party** who discovered that any information was incorrect or incomplete under rule 9 must submit the correct information to the **information system** no later than 5pm, 2 **business days** after the error or omission is discovered.

11. Information system will make the information publicly available

11.1 The **information system** will make the information submitted under rules 3.1, 3.2, 8.1 and 9 publicly available as soon as practicable.

11.2 At the same time that it makes the information submitted under rule 11.1 publicly available, the **information system** will:

11.2.1 indicate that the information is unverified; and

11.2.2 either:

11.2.2.1 for a **contract for differences** or an **options contract**, send a notice to the **other party** to the contract either:

(a) if the **other party** is a **participant**, requiring the **other party** to submit a **verification notice** to the **information system** within 2 **business days** of receiving the notice confirming whether or not the information is correct; or

(b) if the **other party** is not a **participant**, giving the **other party** the option to submit a **verification notice** to the **information**

system within 2 **business days** of receiving the notice confirming whether or not the information is correct; or

11.2.2.2 for a **fixed-price variable-volume contract**, send a notice to the **other party** giving the **other party** the option to submit a **verification notice** to the **information system** within 2 **business days** confirming whether or not the information is correct.

11.3 Any **participant** that receives a notice under rule 11.2.2.1 must comply with that notice.

12. Verification of the information

12.1 If:

12.1.1 the **other party** to a **risk management contract** submits a **verification notice** to the **information system** within 2 **business days** of receiving notice under rule 11.2 confirming that the information made publicly available under rule 11.1 is correct; or

12.1.2 the **other party** to a **fixed-price variable-volume contract** does not submit a **verification notice** to the **information system** within 2 **business days** of receiving notice under rule 11.2; or

12.1.3 the **other party** to a **contract for differences** or an **options contract** is not a **participant** and does not submit a **verification notice** to the **information system** within 2 **business days** of receiving notice under rule 11.2:

the **information system** will indicate that the information made publicly available under rule 11.1 is verified.

12.2 If the **other party** to a **risk management contract** submits a **verification notice** to the **information system** within 2 **business days** of receiving notice under rule 11.2 advising that the information made publicly available under rule 11.1 is not correct, the **information system** will indicate that the information is disputed.

12.3 If the **other party** to a **contract for differences** or an **options contract** is a **participant** but does not submit a **verification notice** within 2 **business days** of receiving notice under rule 11.2:

12.3.1 the **information system** will indicate that the information made publicly available under rule 11.1 is not verified; and

12.3.2 the **information system** will send the **other party** a reminder notice requiring the **other party** to submit a **verification notice** as soon as possible.

12.4 If the information made publicly available under rule 11.1 is disputed:

12.4.1 the **information system** will indicate that the information is disputed;

12.4.2 the **information system** will send the **parties** to the relevant **risk management contract** a notice requiring the **parties** to make all reasonable endeavours to agree on whether the information submitted under rule 10.1 is correct or not within 10 **business days** of receiving the notice.

12.5 The **parties** must comply with any notice issued under rules 12.3.2 or 12.4.2.

12.6 If the **parties** to the **risk management contract** agree in accordance with rule 12.4.2 that the information made publicly available under rule 11.1 is correct, the **other party** must submit a **verification notice** to the **information system** within 1 **business day** confirming that the information is correct.

12.7 If the **parties** to a **risk management contract** agree in accordance with rule 12.4.2 that the information made publicly available under rule 11.1 is not correct, the **party** that submitted that information to the **information system** must correct that information in accordance with rule 9.

13. Confirmation of information submitted to the information system

The **information system** must confirm receipt of any information received by it under rule 3, or rule 7, or rule 8, or rule 9. Such confirmation must contain a copy of the information received by the **information system**, together with the date and time of receipt.

14. Submitting party to check if no confirmation received

14.1 If a **party** that submitted information to the **information system** has not received a confirmation that its information has been received by the **information system** within 6 hours of submitting the information to the **information system**, that **party** must telephone the **Board** to check whether the information has been received by the **information system**. If the **information system** has not received the information, the **party** must resubmit the information. This process must be repeated until such time as the **information system** has confirmed receipt of the information from the **party** in accordance with rule 13.

15. Certification of information

15.1 Every **participant** who has submitted information to the **information system** in accordance with rule 10 in a particular **year** must provide, within 3 months of the end of the **year**, a certificate to the **Board** verifying that the information submitted was correct.

15.2 The certificate must be:

15.2.1 in the form of a declaration and;

15.2.2 in the form specified by the **Board**; and

15.2.3 signed and dated by 2 directors of the **participant**.

16. Audit of information

16.1 The **Board** may appoint an **auditor**, in its discretion, to carry out an **audit** as to whether any identified **participant** has complied with this section.

16.2 Each **participant** subject to an **audit** under rule 16.1 must provide the **auditor** with a copy of any **risk management contract** that it has entered into. This **audit** information must be provided within 20 **business days** of receiving a request from the **auditor** for any such contract.

16.3 The **auditor** will produce an **audit** report on the **participant's** compliance with this section. Before the **audit** report is submitted to the **Board**, any non-compliance is to be referred back to the **participant** for comment. The comments of the **participant** will be included in the **audit** report.

17. Payment of costs relating to audits

17.1 If an **audit** establishes, to the reasonable satisfaction of the **Board**, that a **participant** may not have complied with this section (irrespective of whether or not the **Board** appoints an investigator to investigate the alleged breach under regulation 69 of the **regulations**), the **participant** will pay for the **audit**.

17.2 If the **Board** considers that the non-compliance of the **participant** is minor or relates to some (but not all) of the rules in this section, the **Board** may, in its discretion, make an assessment regarding the proportion of the costs of the **audit** that are to be paid by the **participant**, and those costs will be paid by the **participant** according.

17.3 If the **audit** establishes to the reasonable satisfaction of the **Board** that the **participant** has complied with this section, the **participant** will not be required to pay any of the **auditor's** costs.

18. Information system and Board must not publish certain information and may use information only under this section

18.1 The **Board** must itself keep, and ensure that the **information system** and any **auditor** appointed under rule 16.1 keeps, the information submitted to the **information system** under rule 3, or rule 7, or rule 8, or rule 9 and copies of any **risk management contract** provided to the **auditor** under rule 16 confidential except:

- 18.1.1 where that information is provided by the **Board** to any subcontractors or **service providers** that the **Board** appoints to provide services for the purposes of this section and those subcontractors or **service providers** have agreed to keep that information confidential, on the same terms as apply to the **Board** under this clause;
- 18.1.2 where that information is required to be disclosed by **law**;
- 18.1.3 the **party** or **parties** to whom the information relates have provided prior written consent to the disclosure; or
- 18.1.4 any of the information in a **risk management contract** is made publicly available in accordance with rule 11.1.

18.2 The **Board** may use the information submitted to the **information system** under rule 7 and copies of any **risk management contract** provided to an **auditor** appointed under rule 16.1 only for purposes related to this section and the enforcement of this section.

19. No misleading information

No **party** may submit any information that, at the time the information was submitted, was misleading or deceptive or likely to mislead or deceive.

20. Risk management contracts must be lawful

No **party** may submit any information if that **party** knows or ought reasonably to know that the **risk management contract** to which that information applies would contravene any **law**.

21. Availability of information

21.1 The information that is submitted under rule 10 will remain published for 12 months following the termination of the **risk management contract**.

Definitions

The following terms are proposed to be added to part A of the rules:

adjustment clause means a clause in a **contract for differences** or **fixed-price variable-volume contract** under which the price or prices of a specified volume of **electricity** may be adjusted, including an adjustment relating to the Consumer Price Index, the Producers Price Index or any other index

buyer, for the purposes of section I of part K, means:

- (a) in respect of a **contract for differences**, the **fixed-price payer**;
- (b) in respect of a **fixed-price variable-volume contract**, the purchaser of **electricity**; or
- (c) in respect of an **options contract**, either:
 - (i) the **party** paying the **premium**; or
 - (ii) if there is no **premium**, the **party** who agrees to be the **buyer** for the purposes of section I of part K; or
 - (iii) if neither **party** agrees to be the **buyer**, the party whose name is the first alphabetically

contract for differences, for the purposes of section I of part K, means a financial derivative contract:

- (a) under which one or both **parties** makes or may make a payment to the other **party**;
- (b) in which the payment to be made depends on, or is derived from, the price of a specified quantity of **electricity** at a particular time;
- (c) which may provide a means for the risk to one or both **parties** of an increase or decrease in the price of **electricity** to be reduced or eliminated; and
- (d) in which the quantity of **electricity** that the contract relates to equals or exceeds 0.25 **MW** of **electricity**

contract price, for the purposes of section I of part K, means:

- (a) in respect of a **contract for differences**:
 - (i) if a single **fixed-price** is specified in the contract:
 - (A) that **fixed-price**; or
 - (B) that **fixed-price** adjusted to the Haywards **node** in accordance with rule 6 of section I of part K; or

- (ii) if more than one **fixed-price** is specified in the contract;
 - (A) the **fixed-price** calculated on a time-weighted basis in accordance with rule 5 of section I of part K; or
 - (B) the **fixed-price** calculated on a time-weighted basis in accordance with rule 5 of section I of part K and adjusted to the Haywards **node** in accordance with rule 6 of section I of part K; or
- (b) in respect of a **fixed-price variable-volume contract**:
 - (i) if a single price is specified in the contract, either:
 - (A) that price;
 - (B) that price multiplied by the loss adjustment factor in rule 4 of section I of part K; or
 - (C) that price multiplied by the loss adjustment factor in rule 4 of section I of part K and adjusted to the Haywards **node** in accordance with rule 6 of section I of part K;
 - (ii) if more than one price for **electricity** is specified in the contract, either:
 - (A) the prices calculated on a time-weighted basis in accordance with rule 5 of section I of part K;
 - (B) the prices calculated on a time-weighted basis in accordance with rule 5 of section I of part K and multiplied by the loss adjustment factor in rule 4 of section I of part K; or
 - (C) the prices calculated on a time-weighted basis in accordance with rule 5 of section I of part K, multiplied by the loss adjustment factor in rule 4 of section I of part K and adjusted to the Haywards **node** in accordance with rule 6 of section I of part K

effective date, for the purposes of section I of part K, means the date from which the payments that may be made under a **risk management contract** are calculated

fixed-price means the amount or amounts payable by the **fixed-price payer** for a **quantity of electricity** under a **contract for differences** on an applicable payment date or dates specified in the contract

fixed-price payer means the **party** obligated to make payments at a fixed price from time to time during the term of a **contract for differences**

fixed-price variable-volume contract means a contract that provides for the physical supply of **electricity**, which allows the **buyer** to take variable amounts of **electricity** linked to actual consumption of **electricity** at a fixed price or prices per unit of **electricity** where:

- (a) the **buyer** consumed 2.19GWh or more of **electricity** in the 12-month period before the **effective date** whether under the contract or otherwise; or
- (b) if sub-clause (a) does not apply, the **buyer** is reasonably expected to consume 2.19GWh or more of **electricity** in the 12-month period after the **effective date** whether under the contract or otherwise

floating-price means the amount or amounts payable by the **floating-price payer** for a **quantity** of **electricity** under a **contract for differences** on an applicable payment date or dates specified in the contract

floating-price payer means the **party** obligated to make payments from time to time during the term of a **contract for differences** of one or more payments of a floating amount for a **quantity** of **electricity**

force majeure clause, for the purposes of section I of part K, means a clause in a **risk management contract** under which some or all obligations may be suspended and/or the **risk management contract** may terminate due to events beyond the control of the **party** that could not reasonably have been foreseen, including:

- (a) any event or circumstance occasioned by, or in consequence of, any act of God (being an event or circumstance (i) due to natural causes, directly or indirectly and exclusively without human intervention, and (ii) which could not reasonably have been foreseen or if foreseen, could not reasonably have been resisted), strikes, lockouts, other industrial disturbances, acts of public enemy, wars, blockades, insurrections, riots, epidemics, or civil disturbances; or
- (b) the binding order of any court, government or a local authority beyond the control of the **party**;
- (c) but not including an event specified in a **suspension clause**

grid zone area means a grid zone area used by **Transpower** in the **SCADA** system

other party, in relation to section I of part K, means the **party** to a **risk management contract** who did not submit the information under rules 3.1, 3.2, 8.1 or 9 of section I of part K, as the case may be

options contract means a contract containing the right to buy or sell a **contract for differences** or **fixed-price variable-volume contract**

party, for the purposes of section I of part K, means either the **buyer** or **seller** of a **risk management contract** or both the **buyer** and **seller** of a **risk management contract**, as the case may be

premium, in relation to an **options contract**, means the dollar amount paid by the **buyer** of the **options contract** to the **seller**

profile means a flat or variable volume of **electricity** in respect of which the **floating-price** under a **contract for differences** is determined

quantity, for the purposes of section I of part K, means the **MWh** of **electricity** that a **risk management contract** relates to as follows:

- (a) for a **contract for differences**, either:
 - (i) if the **profile** is flat, the volume of **electricity** for which the **fixed-price** is determined under the contract; or
 - (ii) if the **profile** is variable, the volume of **electricity** on a time-weighted basis for which the **fixed-price** is determined under the contract; or
- (b) for a **fixed-price variable-volume contract**, the volume of **electricity** reasonably likely to be supplied under the contract; or
- (c) for an **options contract**, the **quantity** of **electricity** under the **contract for differences** or **fixed-price variable-volume contract** that the **options contract** relates to

risk management contract, for the purposes of section I of part K, means:

- (a) a **contract for differences**;
- (b) a **fixed-price variable-volume contract**; or
- (c) an **options contract**

seller, for the purposes of section 1 of part K, means:

- (a) in respect of a **contract for differences**, the **floating-price payer**;
- (b) in respect of a **fixed-price variable-volume contract**, the **party** selling the **electricity**; or
- (c) in respect of an **options contract**, either:
 - (i) the **party** receiving the **premium**; or
 - (ii) if there is no **premium** under the **options contract**, the **party** who agrees to be the **seller** for the purposes of section I of part K; or
 - (iii) if neither **party** agrees to be the **seller**, the **party** whose name is the second alphabetically

special credit clause means a clause in a **contract for differences** that specifies that, in the event that a **party** defaults during the term of the contract, the **party** that is not in default will be paid a specified amount or that on execution of the contract, the **party** who may be subject to the default, is provided with a guarantee that payment will be made when the settlement amount reaches a certain threshold

suspension clause means a clause in a **risk management contract** under which some or all of the obligations may be suspended due to an event directly relating to the **supply** (including transmission) or generation of **electricity** or the price at which **electricity** is supplied, including an inability to inject **electricity** into the **grid** as a result of an **outage** of or damage to the **grid** or a **grid injection point** or the price of **electricity** exceeding a level specified in the contract

“**term**”, for the purposes of section 1 of part K, means the term of a **risk management contract**, being the period between the **effective date** and the **termination date**

termination date means the date specified as the last day of the term of a **risk management contract**

trade date, for the purposes of section I of part K, means the date on which the **parties** enter into the **risk management contract**

verification notice, for the purposes of section I of part K, means the notice provided by the **other party** under rule 11.2 of section I of part K

Appendix B. Consideration against objectives and outcomes

Analysis of Proposal against objectives

The disclosure of contract details Proposal contributes to achieving the Commission’s principle objectives and specific outcomes as follows:

Objectives and Outcomes	Response
<i>Under section 172(N) of the Act the Commission’s objectives and outcomes are as follows:</i>	
<p>To ensure that electricity is produced and delivered to all classes of consumers in an efficient, fair, reliable and environmentally sustainable manner; and</p> <p>To promote and facilitate the efficient use of electricity.</p>	<p>The disclosure of contract information should remove some of the asymmetry of information that currently exists in the market. This should make it fairer for smaller consumers when negotiating risk management with sellers, who are typically large generator-retailers.</p> <p>If risk management market participants move away from FPVV contracts onto derivative contracts they will acquire incentives to respond to price signals. This should result in more efficient use of electricity than under the status quo.</p>
<i>The Commission’s specific outcomes are as follows:</i>	
<p>a) energy and other resources are used efficiently;</p>	<p>This proposal may facilitate the increased use of CfDs. The move away from FPVV contracts will enable parties to more efficiently manage their risk positions.</p>
<p>b) risks (including price risks) relating to security of supply are properly and efficiently managed;</p>	<p>This proposal may facilitate the increased use of CfDs. The move away from FPVV contracts will enable parties to more efficiently manage their risk positions.</p>

Objectives and Outcomes	Response
c) barriers to competition in the electricity industry are minimised for the long-term benefit of end-users;	Greater confidence in the competitiveness of the risk management market, resulting from the transparency delivered by the disclosure of contract information, may also reduce implicit barriers to entry in the retail market. This has the potential to spur more competitive retail market outcomes in areas where contracts cover both the risk management market and the spot market.
d) incentives for investment in generation, transmission, lines, energy efficiency and demand-side management are maintained or enhanced and do not discriminate between public and private investment;	If the disclosure of contract information increases activity in the contracts market it may enhance the ability of an independent generator to sell contracts for the development of new generation capacity.
e) the full costs of producing and transporting each additional unit of electricity are signaled;	n/a
f) delivered electricity costs and prices are subject to sustained downward pressure; and	The greater the proportion of a generator's capacity that is accounted for in risk management contracts, (FPVV or CfD) the less incentive a generator has to increase spot prices. Relative to the status quo it is not clear whether the overall level of risk management cover will change following this proposal so the benefits in this area are unproven.

Objectives and Outcomes	Response
<p>g) the electricity sector contributes to achieving the Government's climate change objectives by minimising hydro spill, efficiently managing transmission and distribution losses and constraints, promoting demand-side management and energy efficiency, and removing barriers to investment in new generation technologies, renewables and distributed generation</p>	<p>If risk management market participants move away from FPVV contracts onto derivative contracts they will acquire incentives to respond to price signals. This should result in a more efficient use of electricity than under the status quo.</p>

Appendix C. Form of submission

The Commission invites submissions on the Proposal and in answer to the specific questions below before 5pm on Friday 21 September 2007.

Question	Comment
Question 1	
Question 2	
Question 3	
Question 4	
Question 5	
Question 6	
Question 7	
Question 8	
Question 9	
Question 10	
Question 11	

Appendix D. Grid Zone Areas

Grid Zone	Name	Bus	Island	Region	GOS Zone	EGR Zone
1	Northland	HEN0331	North Island	AK	GZ1	Zone 1
1	Northland	HEN2201	North Island	AK	GZ1	Zone 1
1	Northland	HEP0331	North Island	AK	GZ1	Zone 1
1	Northland	SWN2201	North Island	AK	GZ1	Zone 1
1	Northland	ALB0331	North Island	NL	GZ1	Zone 1
1	Northland	ALB1101	North Island	NL	GZ1	Zone 1
1	Northland	BRB0331	North Island	NL	GZ1	Zone 1
1	Northland	DAR0111	North Island	NL	GZ1	Zone 1
1	Northland	KEN0331	North Island	NL	GZ1	Zone 1
1	Northland	KOE0331	North Island	NL	GZ1	Zone 1
1	Northland	KTA0331	North Island	NL	GZ1	Zone 1
1	Northland	MDN0141	North Island	NL	GZ1	Zone 1
1	Northland	MDN0142	North Island	NL	GZ1	Zone 1
1	Northland	MDN1101	North Island	NL	GZ1	Zone 1
1	Northland	MDN2201	North Island	NL	GZ1	Zone 1
1	Northland	MPE0331	North Island	NL	GZ1	Zone 1
1	Northland	MTO0331	North Island	NL	GZ1	Zone 1
1	Northland	SVL0331	North Island	NL	GZ1	Zone 1
1	Northland	WEL0331	North Island	NL	GZ1	Zone 1
2	Auckland	BOB0331	North Island	AK	GZ2	Zone 1
2	Auckland	BOB1101	North Island	AK	GZ2	Zone 1
2	Auckland	GLN0331	North Island	AK	GZ2	Zone 1
2	Auckland	GLN0332	North Island	AK	GZ2	Zone 1
2	Auckland	MNG0331	North Island	AK	GZ2	Zone 1
2	Auckland	MNG1101	North Island	AK	GZ2	Zone 1
2	Auckland	OTA0221	North Island	AK	GZ2	Zone 1
2	Auckland	OTA1101	North Island	AK	GZ2	Zone 1
2	Auckland	OTA1102	North Island	AK	GZ2	Zone 1
2	Auckland	OTA2201	North Island	AK	GZ2	Zone 1
2	Auckland	OTA2202	North Island	AK	GZ2	Zone 1
2	Auckland	PAK0331	North Island	AK	GZ2	Zone 1
2	Auckland	PEN0221	North Island	AK	GZ2	Zone 1
2	Auckland	PEN0331	North Island	AK	GZ2	Zone 1
2	Auckland	PEN1101	North Island	AK	GZ2	Zone 1
2	Auckland	ROS0221	North Island	AK	GZ2	Zone 1
2	Auckland	ROS1101	North Island	AK	GZ2	Zone 1
2	Auckland	TAK0331	North Island	AK	GZ2	Zone 1
2	Auckland	WIR0331	North Island	AK	GZ2	Zone 1
2	Auckland	MER0331	North Island	AK	GZ2	Zone 1
3	Hamilton	KIN0111	North Island	BP	GZ3	Zone 2
3	Hamilton	KIN0112	North Island	BP	GZ3	Zone 2
3	Hamilton	KIN0331	North Island	BP	GZ3	Zone 2
3	Hamilton	ARI1101	North Island	HM	GZ3	Zone 2
3	Hamilton	CBG0111	North Island	HM	GZ3	Zone 2
3	Hamilton	HAM0111	North Island	HM	GZ3	Zone 2
3	Hamilton	HAM0331	North Island	HM	GZ3	Zone 2
3	Hamilton	HAM0551	North Island	HM	GZ3	Zone 2

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Grid Zone	Name	Bus	Island	Region	GOS Zone	EGR Zone
3	Hamilton	HAM2201	North Island	HM	GZ3	Zone 2
3	Hamilton	HIN0331	North Island	HM	GZ3	Zone 2
3	Hamilton	HLY2201	North Island	HM	GZ3	Zone 2
3	Hamilton	HTI0331	North Island	HM	GZ3	Zone 2
3	Hamilton	KPO1101	North Island	HM	GZ3	Zone 2
3	Hamilton	KPU0661	North Island	HM	GZ3	Zone 2
3	Hamilton	TMU0111	North Island	HM	GZ3	Zone 2
3	Hamilton	TMU1101	North Island	HM	GZ3	Zone 2
3	Hamilton	TWH0331	North Island	HM	GZ3	Zone 2
3	Hamilton	WES0331	North Island	HM	GZ3	Zone 2
3	Hamilton	WHU0331	North Island	HM	GZ3	Zone 2
3	Hamilton	WKO0331	North Island	HM	GZ3	Zone 2
4	Edgecumbe	ATI2201	North Island	BP	GZ4	Zone 2
4	Edgecumbe	EDG0331	North Island	BP	GZ4	Zone 2
4	Edgecumbe	KAW0111	North Island	BP	GZ4	Zone 2
4	Edgecumbe	KAW0112	North Island	BP	GZ4	Zone 2
4	Edgecumbe	KAW0113	North Island	BP	GZ4	Zone 2
4	Edgecumbe	KAW2201	North Island	BP	GZ4	Zone 2
4	Edgecumbe	LFD1101	North Island	BP	GZ4	Zone 2
4	Edgecumbe	LFD1102	North Island	BP	GZ4	Zone 2
4	Edgecumbe	MAT1101	North Island	BP	GZ4	Zone 2
4	Edgecumbe	MTM0111	North Island	BP	GZ4	Zone 2
4	Edgecumbe	MTM0331	North Island	BP	GZ4	Zone 2
4	Edgecumbe	OHK2201	North Island	BP	GZ4	Zone 2
4	Edgecumbe	OWH0111	North Island	BP	GZ4	Zone 2
4	Edgecumbe	ROT0111	North Island	BP	GZ4	Zone 2
4	Edgecumbe	ROT0331	North Island	BP	GZ4	Zone 2
4	Edgecumbe	ROT1101	North Island	BP	GZ4	Zone 2
4	Edgecumbe	TGA0111	North Island	BP	GZ4	Zone 2
4	Edgecumbe	TGA0331	North Island	BP	GZ4	Zone 2
4	Edgecumbe	TKH0111	North Island	BP	GZ4	Zone 2
4	Edgecumbe	TMI0331	North Island	BP	GZ4	Zone 2
4	Edgecumbe	TRK0111	North Island	BP	GZ4	Zone 2
4	Edgecumbe	TRK2201	North Island	BP	GZ4	Zone 2
4	Edgecumbe	WAI0111	North Island	BP	GZ4	Zone 2
4	Edgecumbe	ARA2201	North Island	HM	GZ4	Zone 2
4	Edgecumbe	MTI2201	North Island	HM	GZ4	Zone 2
4	Edgecumbe	OKI0111	North Island	HM	GZ4	Zone 2
4	Edgecumbe	OKI2201	North Island	HM	GZ4	Zone 2
4	Edgecumbe	PPI2201	North Island	HM	GZ4	Zone 2
4	Edgecumbe	WKM2201	North Island	HM	GZ4	Zone 2
4	Edgecumbe	WPA2201	North Island	HM	GZ4	Zone 2
4	Edgecumbe	WRK0331	North Island	HM	GZ4	Zone 2
4	Edgecumbe	WRK2201	North Island	HM	GZ4	Zone 2
5	Hawkes Bay	FHL0331	North Island	NR	GZ5	Zone 2
5	Hawkes Bay	GIS0501	North Island	NR	GZ5	Zone 2
5	Hawkes Bay	RDF2201	North Island	NR	GZ5	Zone 2
5	Hawkes Bay	TUI0111	North Island	NR	GZ5	Zone 2
5	Hawkes Bay	TUI1101	North Island	NR	GZ5	Zone 2
5	Hawkes Bay	WHI0111	North Island	NR	GZ5	Zone 2

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Grid Zone	Name	Bus	Island	Region	GOS Zone	EGR Zone
5	Hawkes Bay	WHI2201	North Island	NR	GZ5	Zone 2
5	Hawkes Bay	WRA0111	North Island	NR	GZ5	Zone 2
5	Hawkes Bay	WTU0331	North Island	NR	GZ5	Zone 2
6	Taranaki	BRK0331	North Island	PN	GZ6	Zone 2
6	Taranaki	CST0111	North Island	PN	GZ6	Zone 2
6	Taranaki	CST0331	North Island	PN	GZ6	Zone 2
6	Taranaki	HUI0331	North Island	PN	GZ6	Zone 2
6	Taranaki	HWA0331	North Island	PN	GZ6	Zone 2
6	Taranaki	HWA1101	North Island	PN	GZ6	Zone 2
6	Taranaki	HWA1102	North Island	PN	GZ6	Zone 2
6	Taranaki	MNI0111	North Island	PN	GZ6	Zone 2
6	Taranaki	NPL0331	North Island	PN	GZ6	Zone 2
6	Taranaki	NPL1101	North Island	PN	GZ6	Zone 2
6	Taranaki	NPL2201	North Island	PN	GZ6	Zone 2
6	Taranaki	OPK0331	North Island	PN	GZ6	Zone 2
6	Taranaki	SFD0331	North Island	PN	GZ6	Zone 2
6	Taranaki	SFD2201	North Island	PN	GZ6	Zone 2
6	Taranaki	WVY0111	North Island	PN	GZ6	Zone 2
6	Taranaki	KPA1101	North Island	PN	GZ6	Zone 2
6	Taranaki	MRA0111	North Island	PN	GZ6	Zone 2
7	Bunnythorpe	NPK0331	North Island	HM	GZ7	Zone 2
7	Bunnythorpe	OKN0111	North Island	HM	GZ7	Zone 2
7	Bunnythorpe	ONG0331	North Island	HM	GZ7	Zone 2
7	Bunnythorpe	RPO2201	North Island	HM	GZ7	Zone 2
7	Bunnythorpe	TKU0331	North Island	HM	GZ7	Zone 2
7	Bunnythorpe	TKU2201	North Island	HM	GZ7	Zone 2
7	Bunnythorpe	TMN0551	North Island	HM	GZ7	Zone 2
7	Bunnythorpe	DVK0111	North Island	NR	GZ7	Zone 2
7	Bunnythorpe	RDF0331	North Island	NR	GZ7	Zone 2
7	Bunnythorpe	WDV0111	North Island	NR	GZ7	Zone 2
7	Bunnythorpe	WDV1101	North Island	NR	GZ7	Zone 2
7	Bunnythorpe	WPW0331	North Island	NR	GZ7	Zone 2
7	Bunnythorpe	BPE0331	North Island	PN	GZ7	Zone 2
7	Bunnythorpe	BPE0551	North Island	PN	GZ7	Zone 2
7	Bunnythorpe	BPE2201	North Island	PN	GZ7	Zone 2
7	Bunnythorpe	LTN0331	North Island	PN	GZ7	Zone 2
7	Bunnythorpe	MHO0331	North Island	PN	GZ7	Zone 2
7	Bunnythorpe	MTN0331	North Island	PN	GZ7	Zone 2
7	Bunnythorpe	MTR0331	North Island	PN	GZ7	Zone 2
7	Bunnythorpe	TNG0111	North Island	PN	GZ7	Zone 2
7	Bunnythorpe	TNG0551	North Island	PN	GZ7	Zone 2
7	Bunnythorpe	WGN0331	North Island	PN	GZ7	Zone 2
8	Wellington	GYT0331	North Island	NR	GZ8	Zone 2
8	Wellington	MGM0331	North Island	NR	GZ8	Zone 2
8	Wellington	MST0331	North Island	NR	GZ8	Zone 2
8	Wellington	CPK0111	North Island	WN	GZ8	Zone 2
8	Wellington	CPK0331	North Island	WN	GZ8	Zone 2
8	Wellington	GFD0331	North Island	WN	GZ8	Zone 2
8	Wellington	HAY0111	North Island	WN	GZ8	Zone 2

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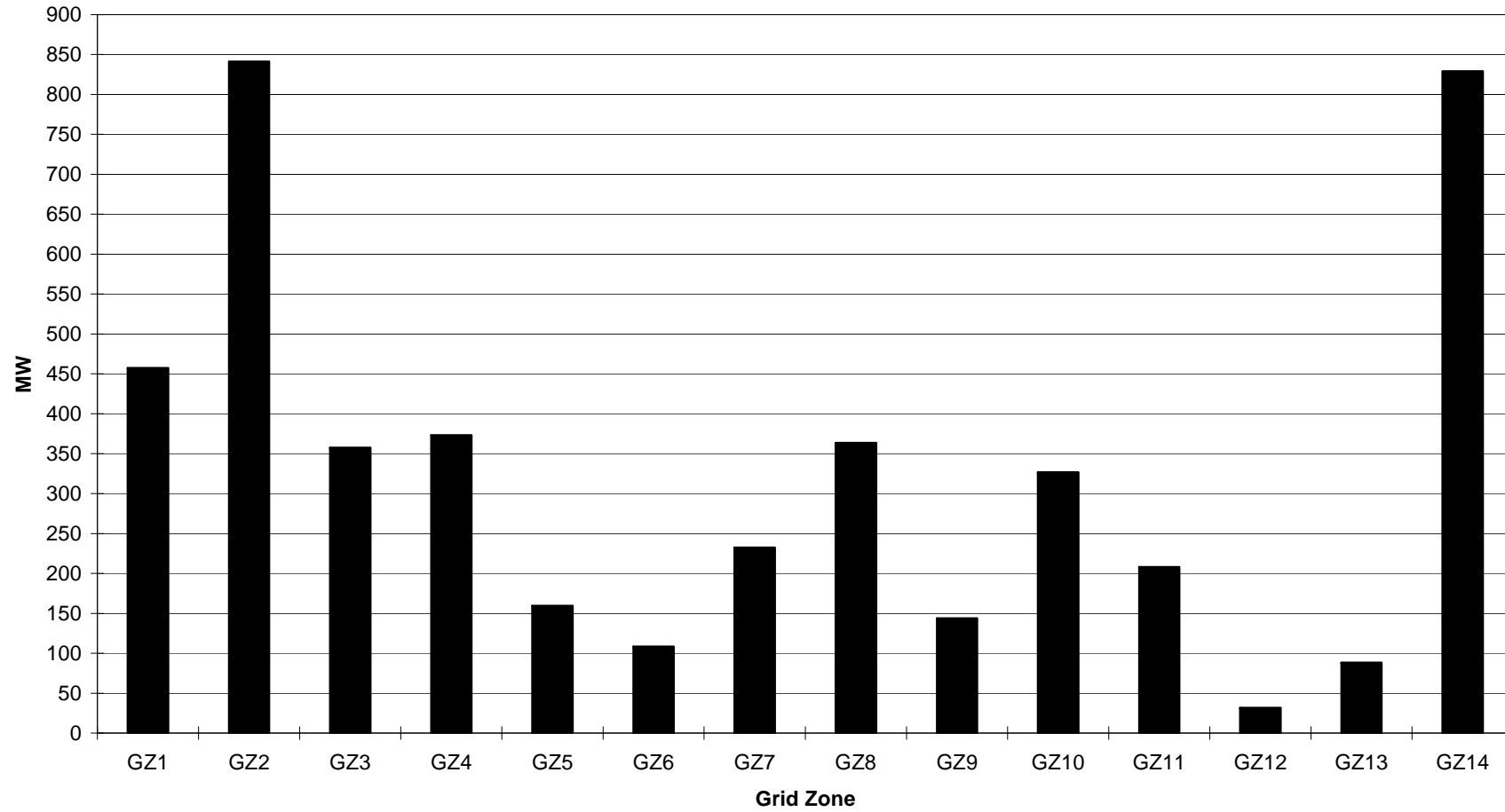
Grid Zone	Name	Bus	Island	Region	GOS Zone	EGR Zone
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8	Wellington	HAY2201	North Island	WN	GZ8	Zone 2
8	Wellington	KWA0111	North Island	WN	GZ8	Zone 2
8	Wellington	MLG0111	North Island	WN	GZ8	Zone 2
8	Wellington	MLG0331	North Island	WN	GZ8	Zone 2
8	Wellington	PNI0331	North Island	WN	GZ8	Zone 2
8	Wellington	PRM0331	North Island	WN	GZ8	Zone 2
8	Wellington	TKR0331	North Island	WN	GZ8	Zone 2
8	Wellington	UHT0331	North Island	WN	GZ8	Zone 2
8	Wellington	WIL0331	North Island	WN	GZ8	Zone 2
9	Nelson	BLN0331	South Island	WC	GZ9	Zone 3
9	Nelson	DOB0331	South Island	WC	GZ9	Zone 3
9	Nelson	DOB0661	South Island	WC	GZ9	Zone 3
9	Nelson	KIK0111	South Island	WC	GZ9	Zone 3
9	Nelson	MCH0111	South Island	WC	GZ9	Zone 3
9	Nelson	MOT0111	South Island	WC	GZ9	Zone 3
9	Nelson	MPI0661	South Island	WC	GZ9	Zone 3
9	Nelson	ORO1101	South Island	WC	GZ9	Zone 3
9	Nelson	ORO1102	South Island	WC	GZ9	Zone 3
9	Nelson	STK0331	South Island	WC	GZ9	Zone 3
9	Nelson	STK2201	South Island	WC	GZ9	Zone 3
9	Nelson	WPT0111	South Island	WC	GZ9	Zone 3
9	Nelson	ARG1101	South Island	WC	GZ9	Zone 4
9	Nelson	COB0661	South Island	WC	GZ9	Zone 3
9	Nelson	RFN1101	South Island	WC	GZ9	Zone 4
9	Nelson	RFN1102	South Island	WC	GZ9	Zone 4
10	Christchurch	ASY0111	South Island	CH	GZ10	Zone 3
10	Christchurch	CUL0331	South Island	CH	GZ10	Zone 3
10	Christchurch	KAI0111	South Island	CH	GZ10	Zone 3
10	Christchurch	KKA0331	South Island	CH	GZ10	Zone 3
10	Christchurch	SBK0331	South Island	CH	GZ10	Zone 3
10	Christchurch	WPR0331	South Island	CH	GZ10	Zone 3
10	Christchurch	ADD0111	South Island	CH	GZ10	Zone 4
10	Christchurch	ADD0661	South Island	CH	GZ10	Zone 4
10	Christchurch	ISL0331	South Island	CH	GZ10	Zone 4
10	Christchurch	ISL0661	South Island	CH	GZ10	Zone 4
10	Christchurch	ISL2201	South Island	CH	GZ10	Zone 4
10	Christchurch	PAP0111	South Island	CH	GZ10	Zone 4
10	Christchurch	PAP0661	South Island	CH	GZ10	Zone 4
10	Christchurch	SPN0331	South Island	CH	GZ10	Zone 4
11	Canterbury	ABY0111	South Island	CH	GZ11	Zone 4
11	Canterbury	ASB0331	South Island	CH	GZ11	Zone 4
11	Canterbury	ASB0661	South Island	CH	GZ11	Zone 4
11	Canterbury	BRY0111	South Island	CH	GZ11	Zone 4
11	Canterbury	BRY0661	South Island	CH	GZ11	Zone 4
11	Canterbury	TIM0111	South Island	CH	GZ11	Zone 4
11	Canterbury	TKA0111	South Island	CH	GZ11	Zone 4
11	Canterbury	TKA0331	South Island	CH	GZ11	Zone 4

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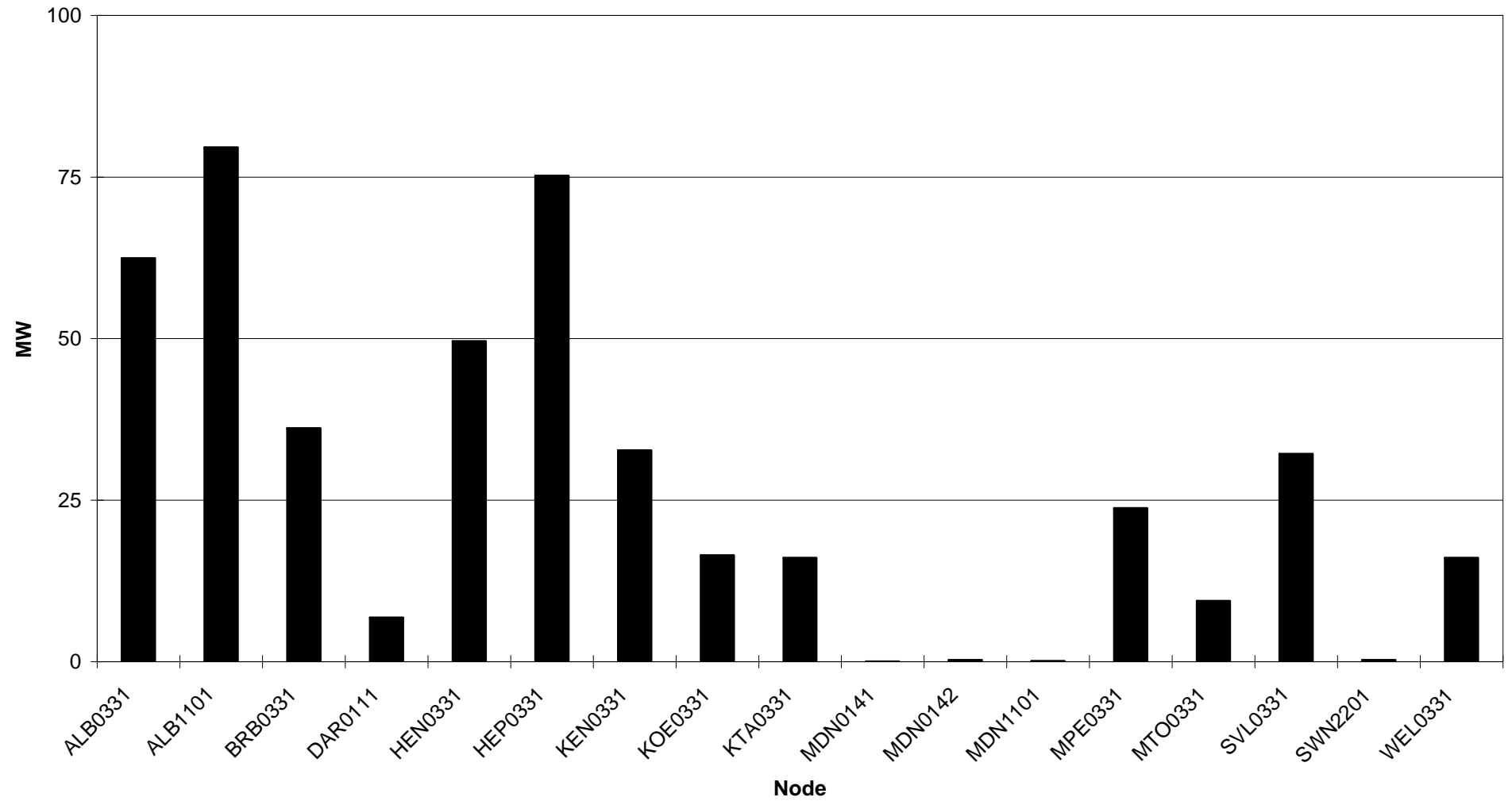
Grid Zone	Name	Bus	Island	Region	GOS Zone	EGR Zone
11	Canterbury	TMK0331	South Island	CH	GZ11	Zone 4
12	West Coast	APS0111	South Island	WC	GZ12	Zone 3
12	West Coast	CLH0111	South Island	WC	GZ12	Zone 3
12	West Coast	GYM0661	South Island	WC	GZ12	Zone 3
12	West Coast	HKK0661	South Island	WC	GZ12	Zone 3
12	West Coast	KUM0661	South Island	WC	GZ12	Zone 3
12	West Coast	OTI0111	South Island	WC	GZ12	Zone 3
12	West Coast	COL0111	South Island	WC	GZ12	Zone 4
12	West Coast	COL0661	South Island	WC	GZ12	Zone 4
12	West Coast	HOR0331	South Island	WC	GZ12	Zone 4
12	West Coast	HOR0661	South Island	WC	GZ12	Zone 4
13	Otago	TKB2201	South Island	CH	GZ13	Zone 4
13	Otago	TWZ0331	South Island	CH	GZ13	Zone 4
13	Otago	AVI2201	South Island	IN	GZ13	Zone 4
13	Otago	BEN0162	South Island	IN	GZ13	Zone 4
13	Otago	BEN0163	South Island	IN	GZ13	Zone 4
13	Otago	BEN2201	South Island	IN	GZ13	Zone 4
13	Otago	BPT1101	South Island	IN	GZ13	Zone 4
13	Otago	CML0331	South Island	IN	GZ13	Zone 4
13	Otago	FKN0331	South Island	IN	GZ13	Zone 4
13	Otago	NSY0331	South Island	IN	GZ13	Zone 4
13	Otago	OAM0331	South Island	IN	GZ13	Zone 4
13	Otago	OHA2201	South Island	IN	GZ13	Zone 4
13	Otago	OHB2201	South Island	IN	GZ13	Zone 4
13	Otago	OHC2201	South Island	IN	GZ13	Zone 4
13	Otago	STU0111	South Island	IN	GZ13	Zone 4
13	Otago	WTK0111	South Island	IN	GZ13	Zone 4
13	Otago	WTK0331	South Island	IN	GZ13	Zone 4
13	Otago	WTK2201	South Island	IN	GZ13	Zone 4
14	Southland	BAL0331	South Island	IN	GZ14	Zone 4
14	Southland	BDE0111	South Island	IN	GZ14	Zone 4
14	Southland	BWK1101	South Island	IN	GZ14	Zone 4
14	Southland	CYD0331	South Island	IN	GZ14	Zone 4
14	Southland	CYD2201	South Island	IN	GZ14	Zone 4
14	Southland	EDN0331	South Island	IN	GZ14	Zone 4
14	Southland	GOR0331	South Island	IN	GZ14	Zone 4
14	Southland	HWB0331	South Island	IN	GZ14	Zone 4
14	Southland	HWB0332	South Island	IN	GZ14	Zone 4
14	Southland	HWB2201	South Island	IN	GZ14	Zone 4
14	Southland	INV0331	South Island	IN	GZ14	Zone 4
14	Southland	INV2201	South Island	IN	GZ14	Zone 4
14	Southland	MAN2201	South Island	IN	GZ14	Zone 4
14	Southland	NMA0331	South Island	IN	GZ14	Zone 4
14	Southland	PAL0331	South Island	IN	GZ14	Zone 4
14	Southland	ROX1101	South Island	IN	GZ14	Zone 4
14	Southland	ROX2201	South Island	IN	GZ14	Zone 4
14	Southland	SDN0331	South Island	IN	GZ14	Zone 4
14	Southland	TWI2201	South Island	IN	GZ14	Zone 4

Appendix E. Average MW demand for each Zone

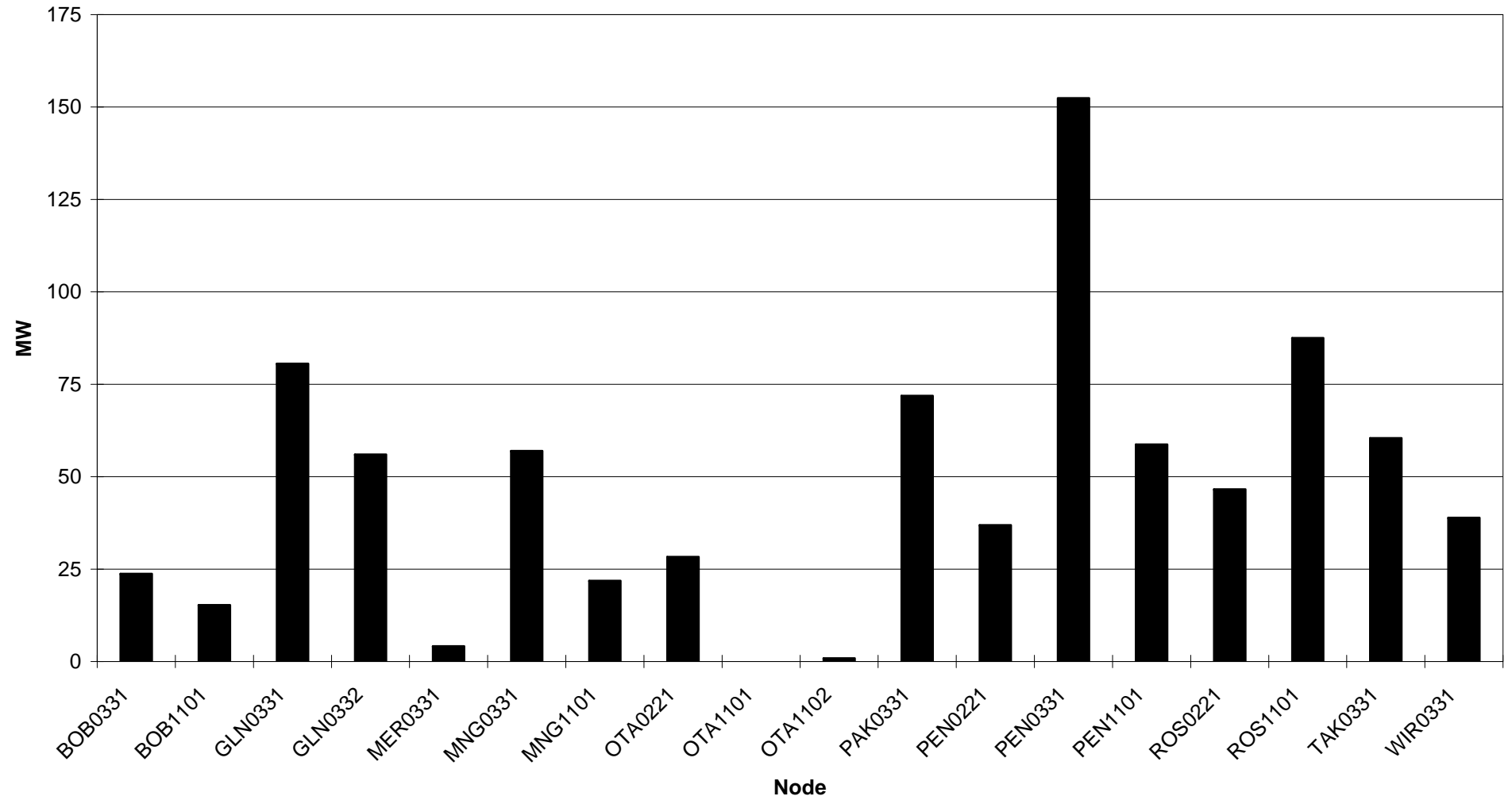
Average MW demand by Grid Zone



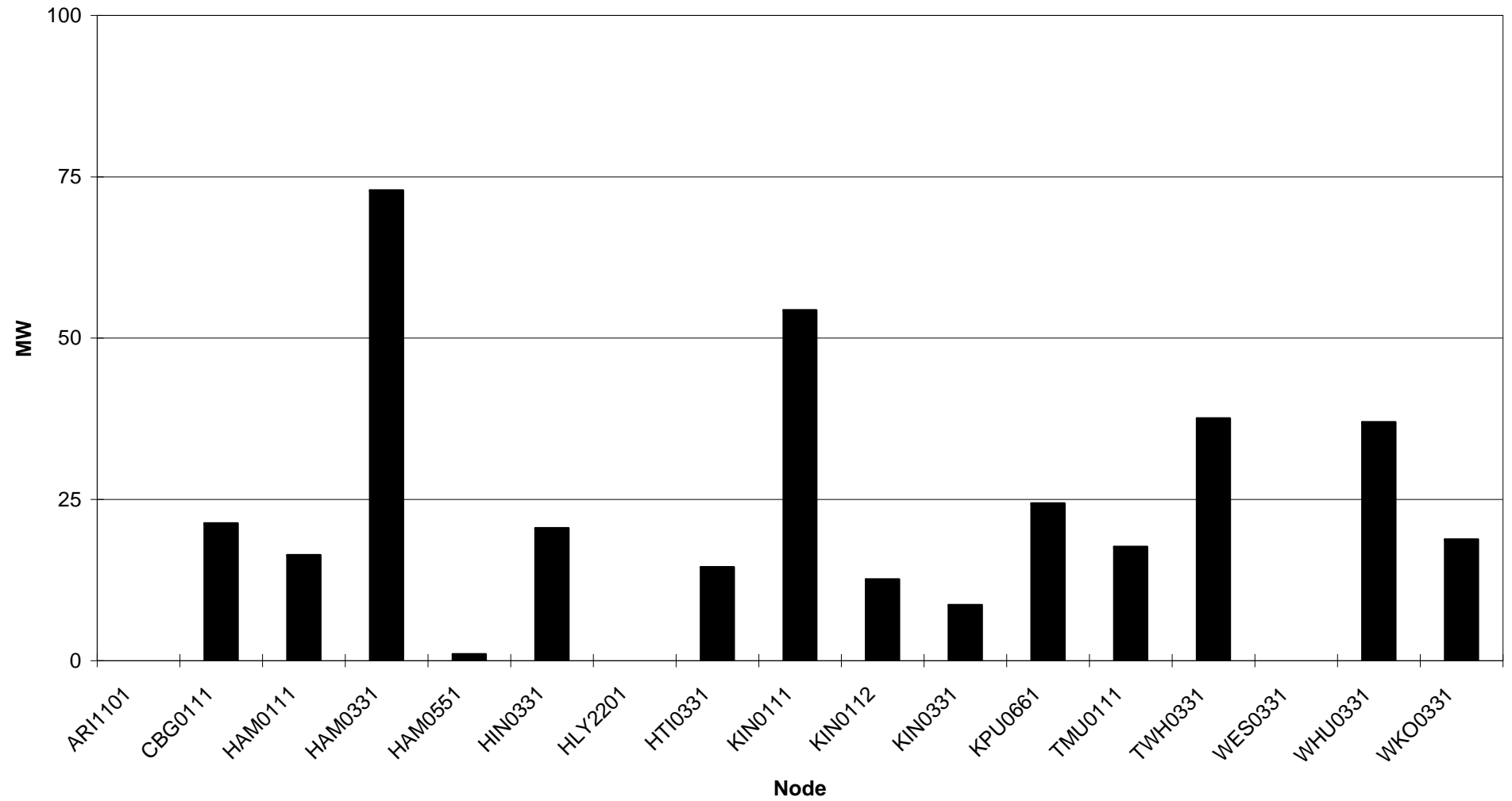
Average MW demand Grid Zone 1



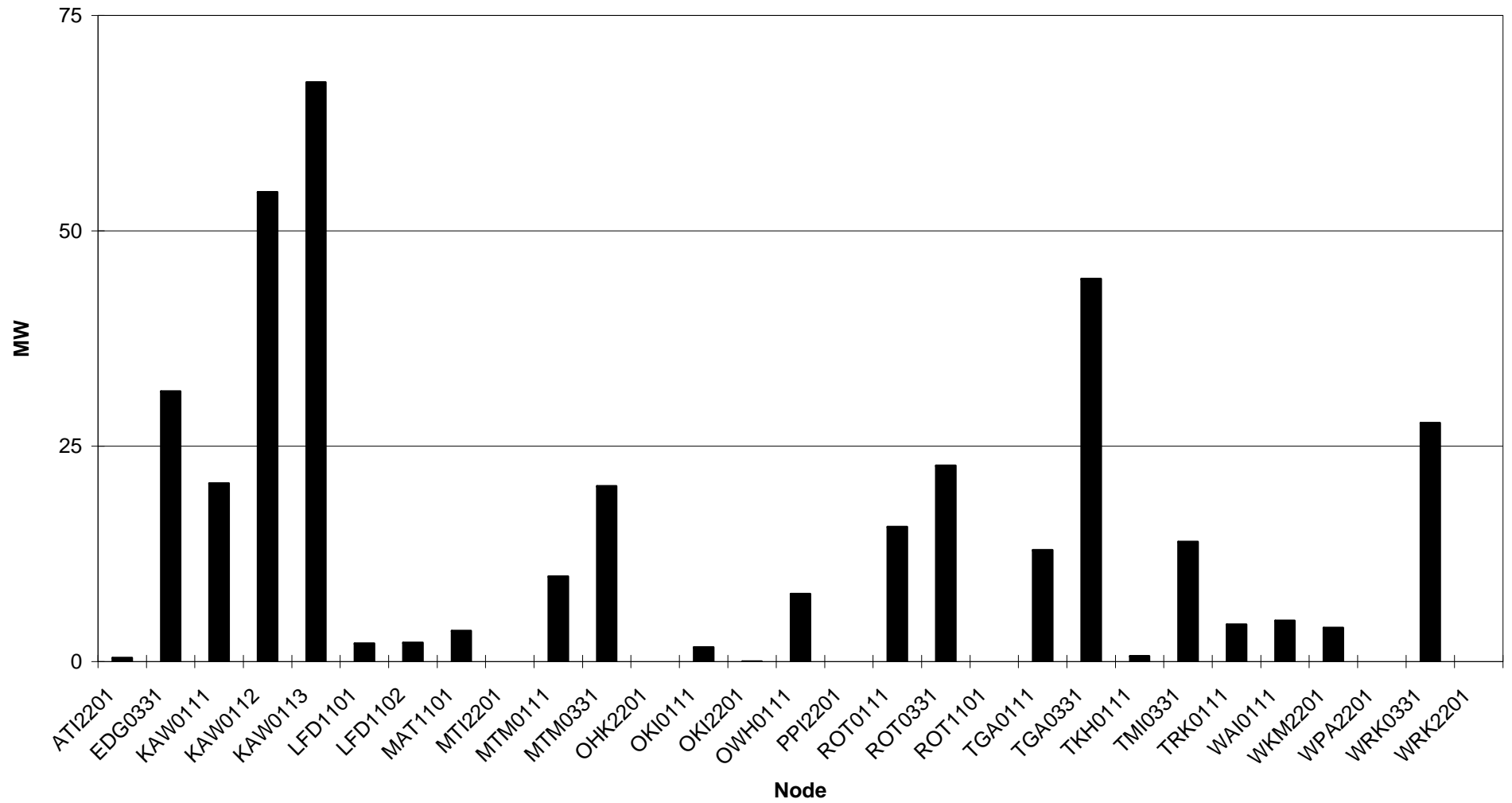
Average MW demand Grid Zone 2



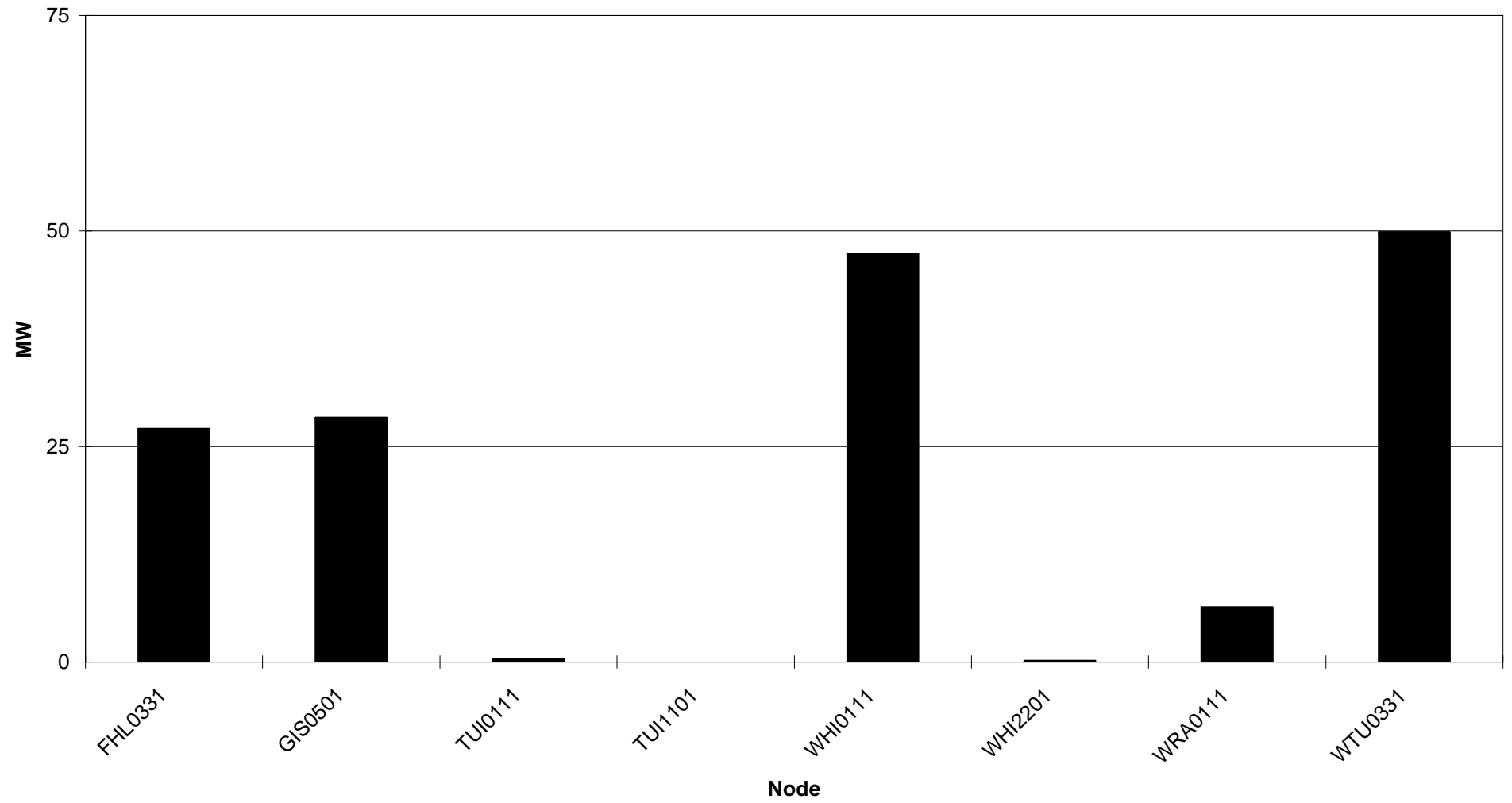
Average MW demand Grid Zone 3



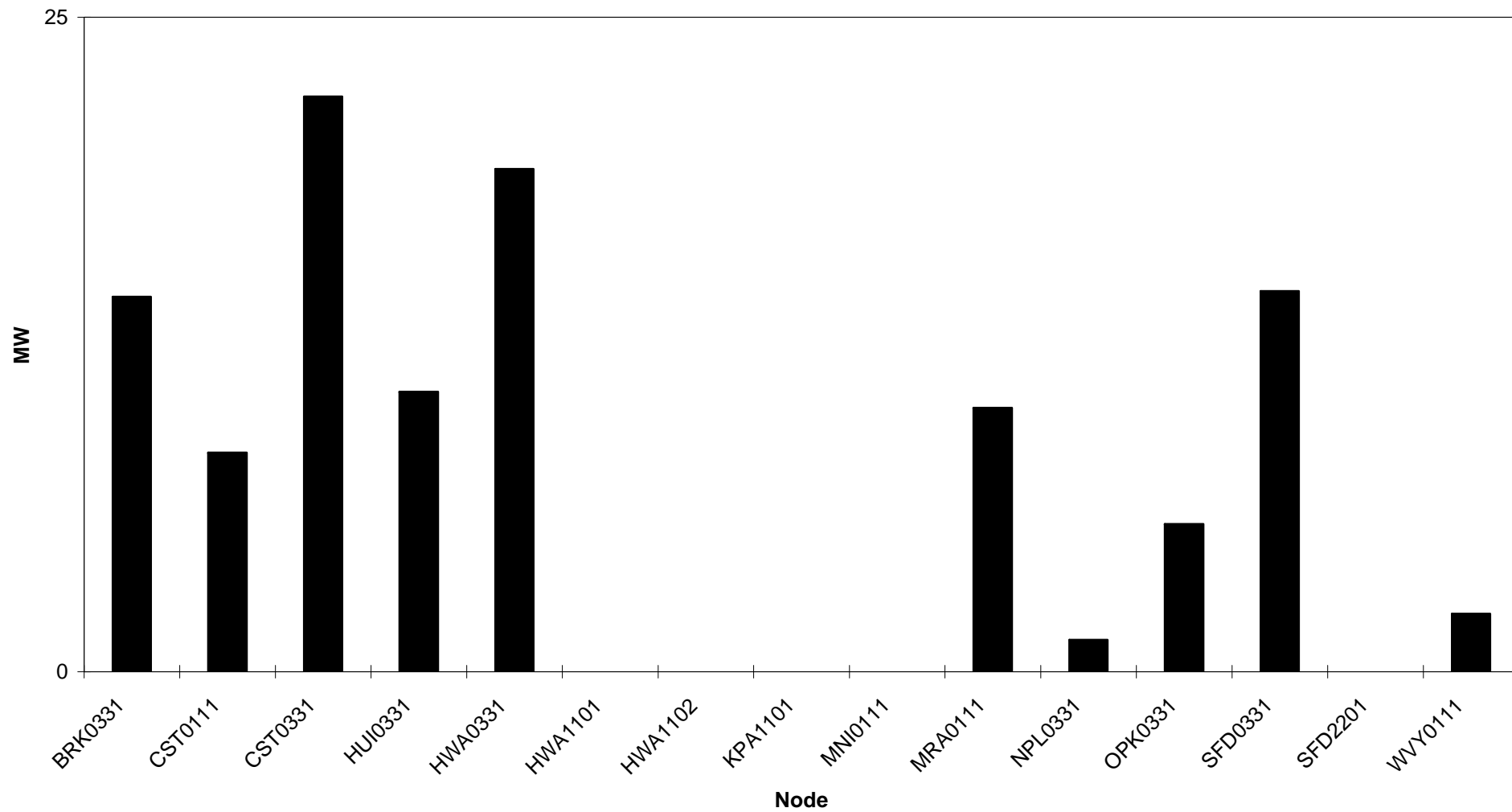
Average MW demand Grid Zone 4



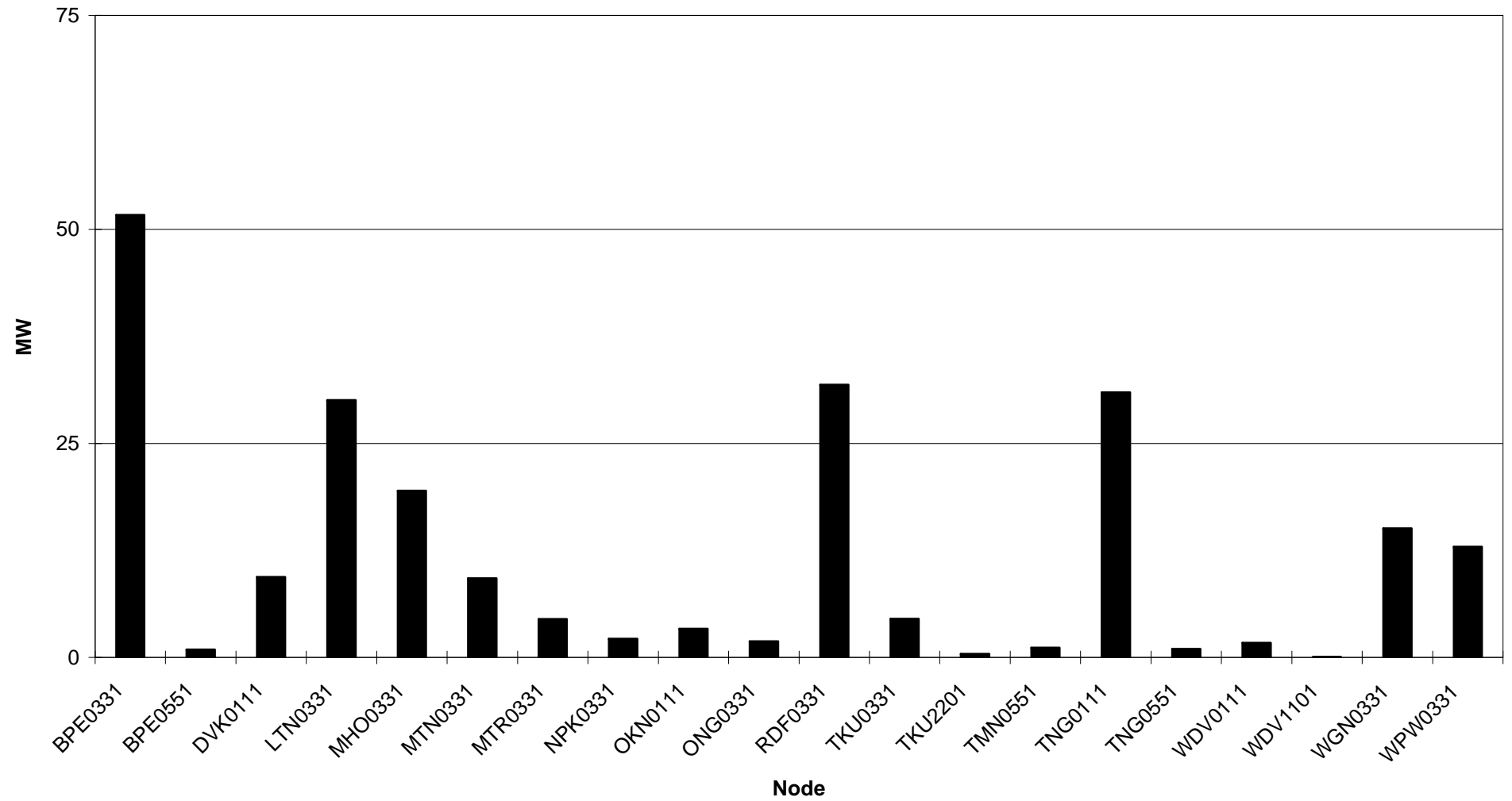
Average MW demand Grid Zone 5



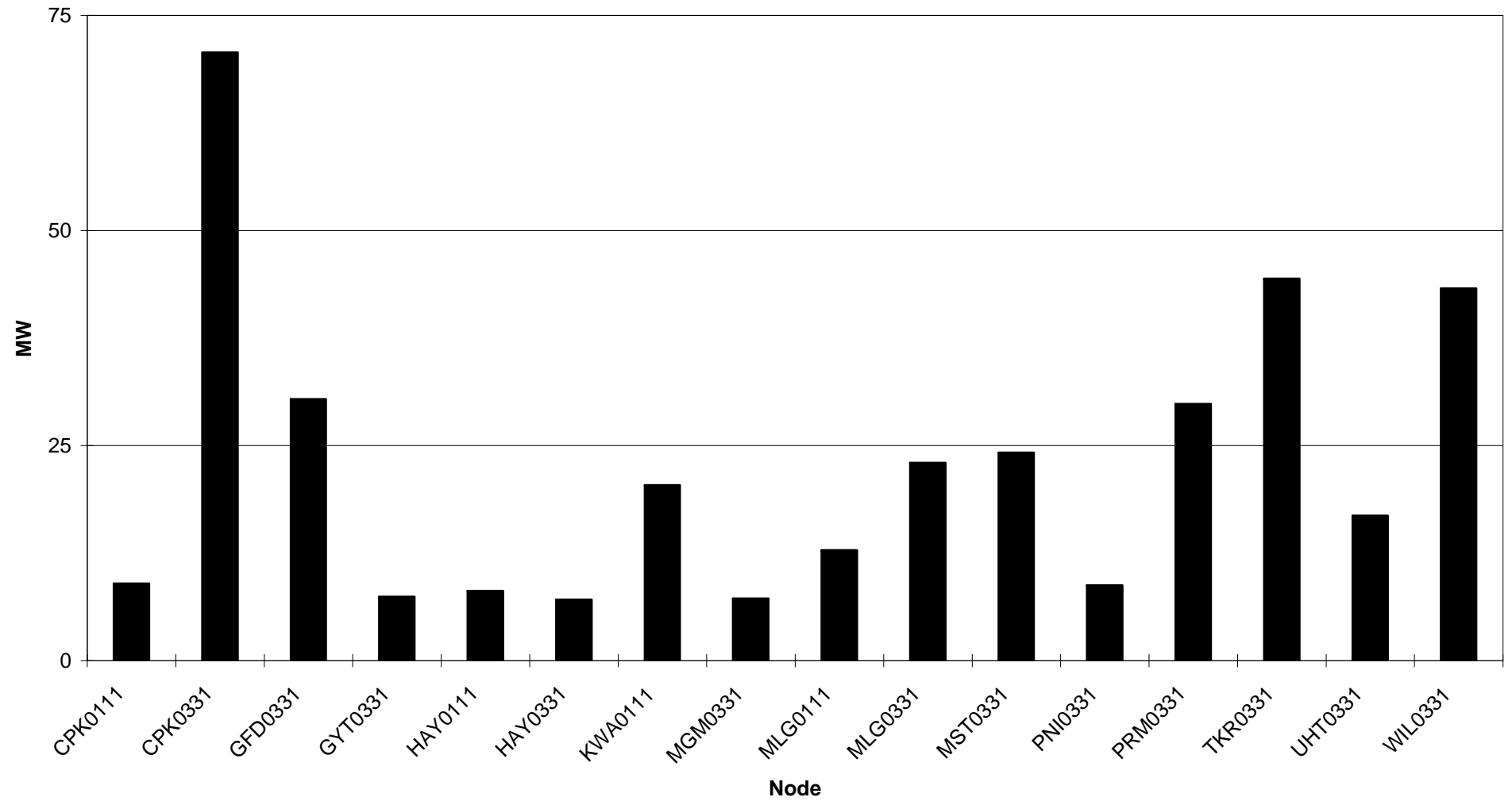
Average MW demand Grid Zone 6



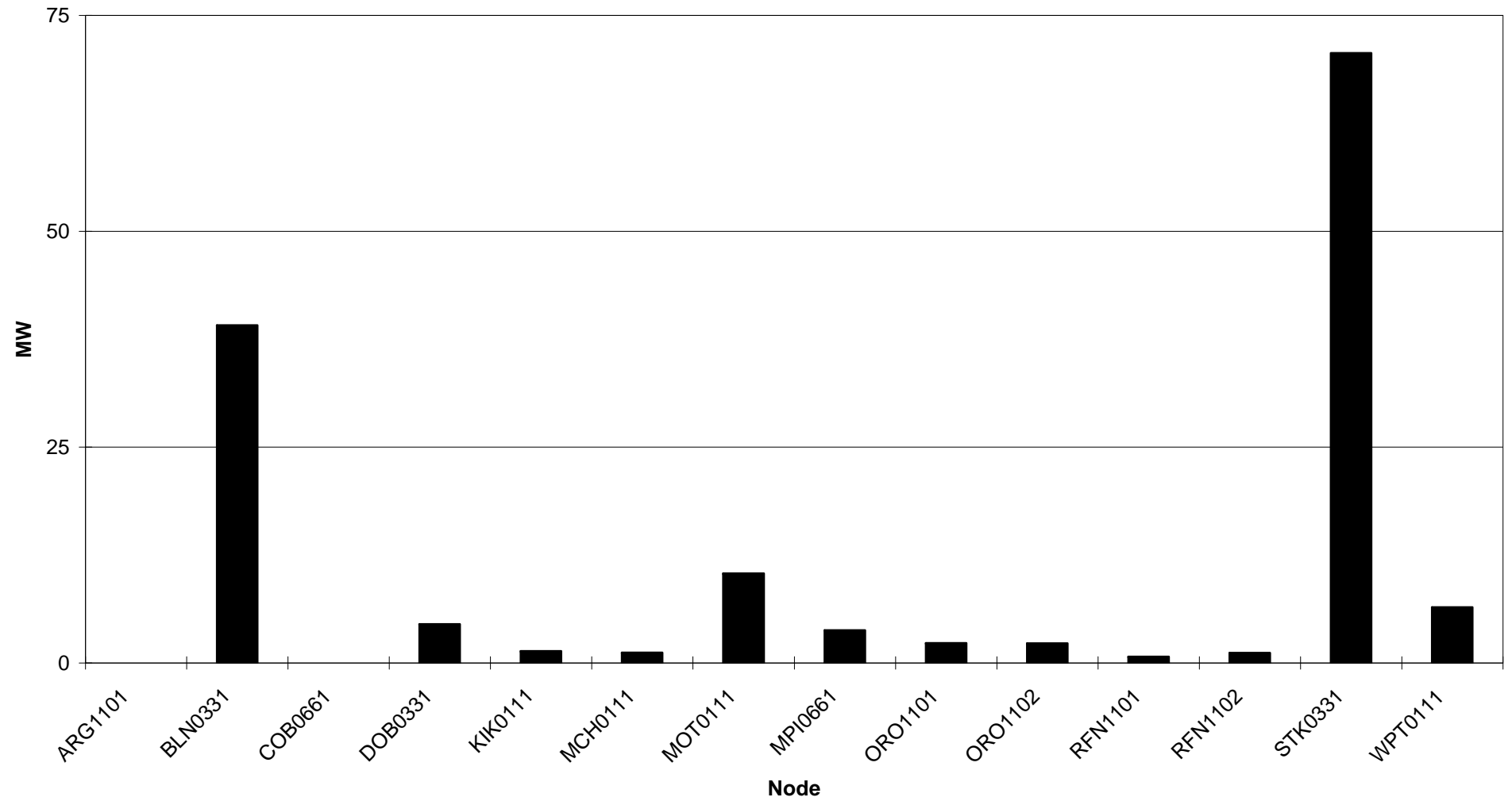
Average MW demand Grid Zone 7



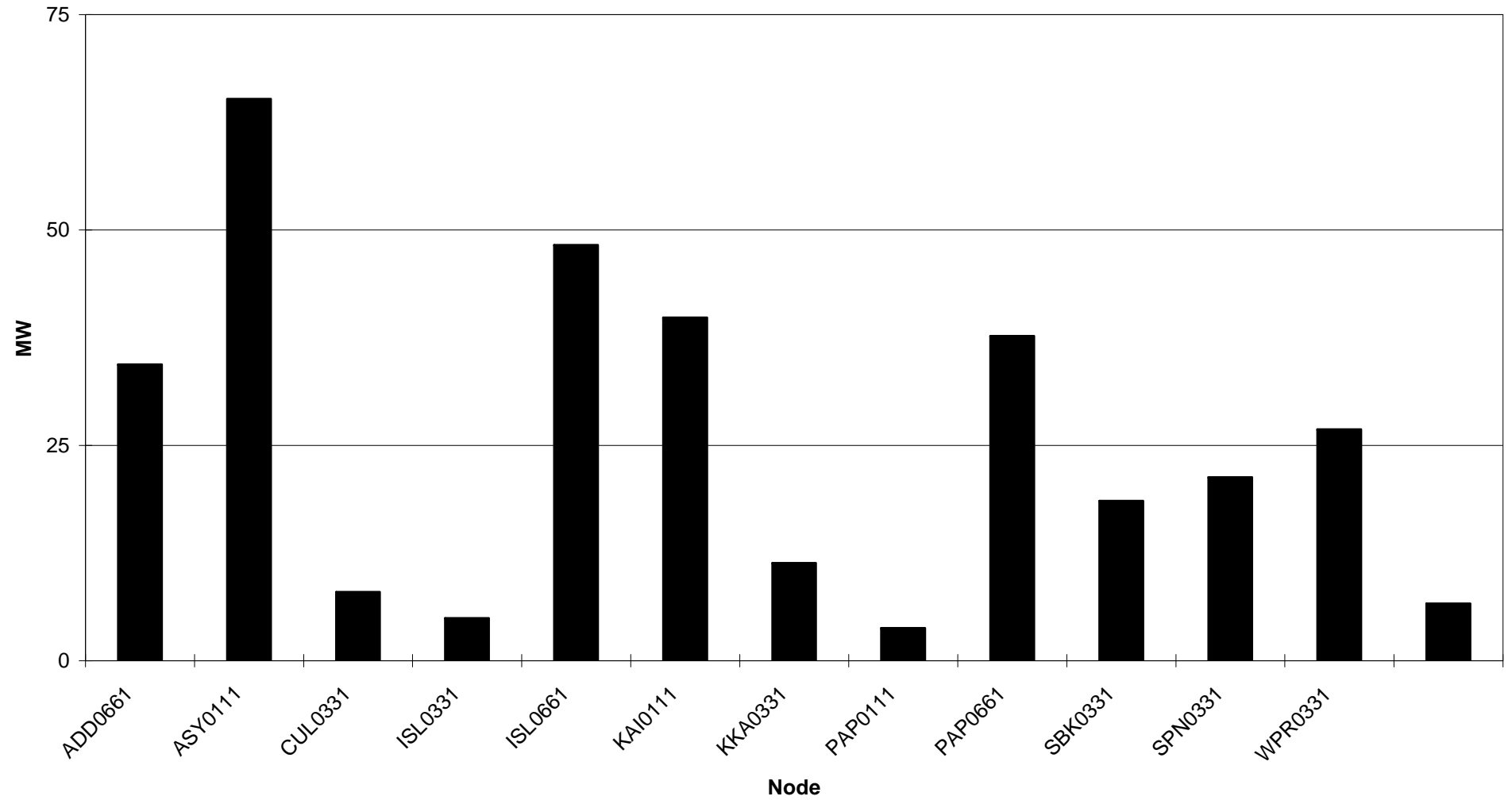
Average MW demand Grid Zone 8



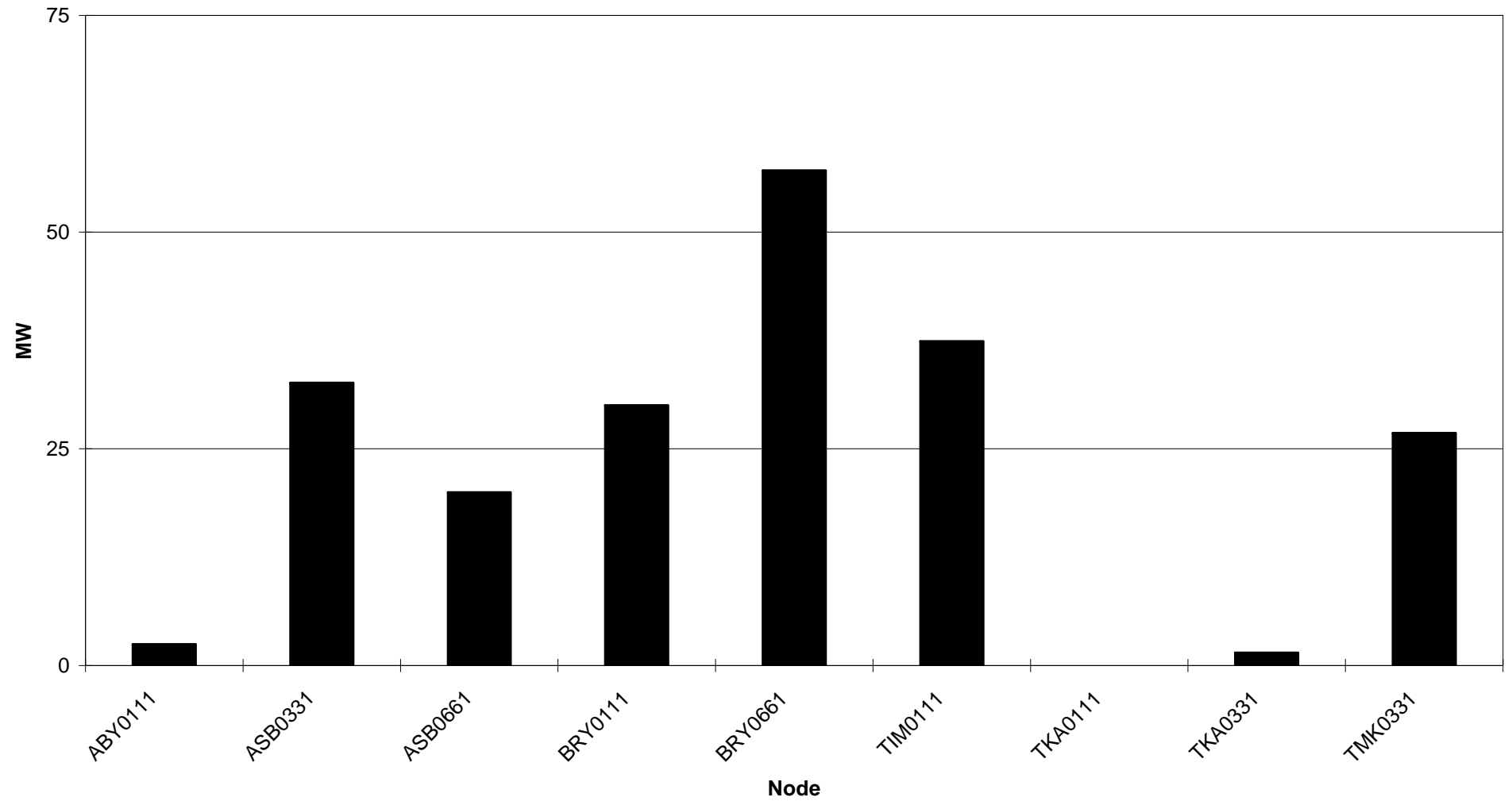
Average MW demand Grid Zone 9



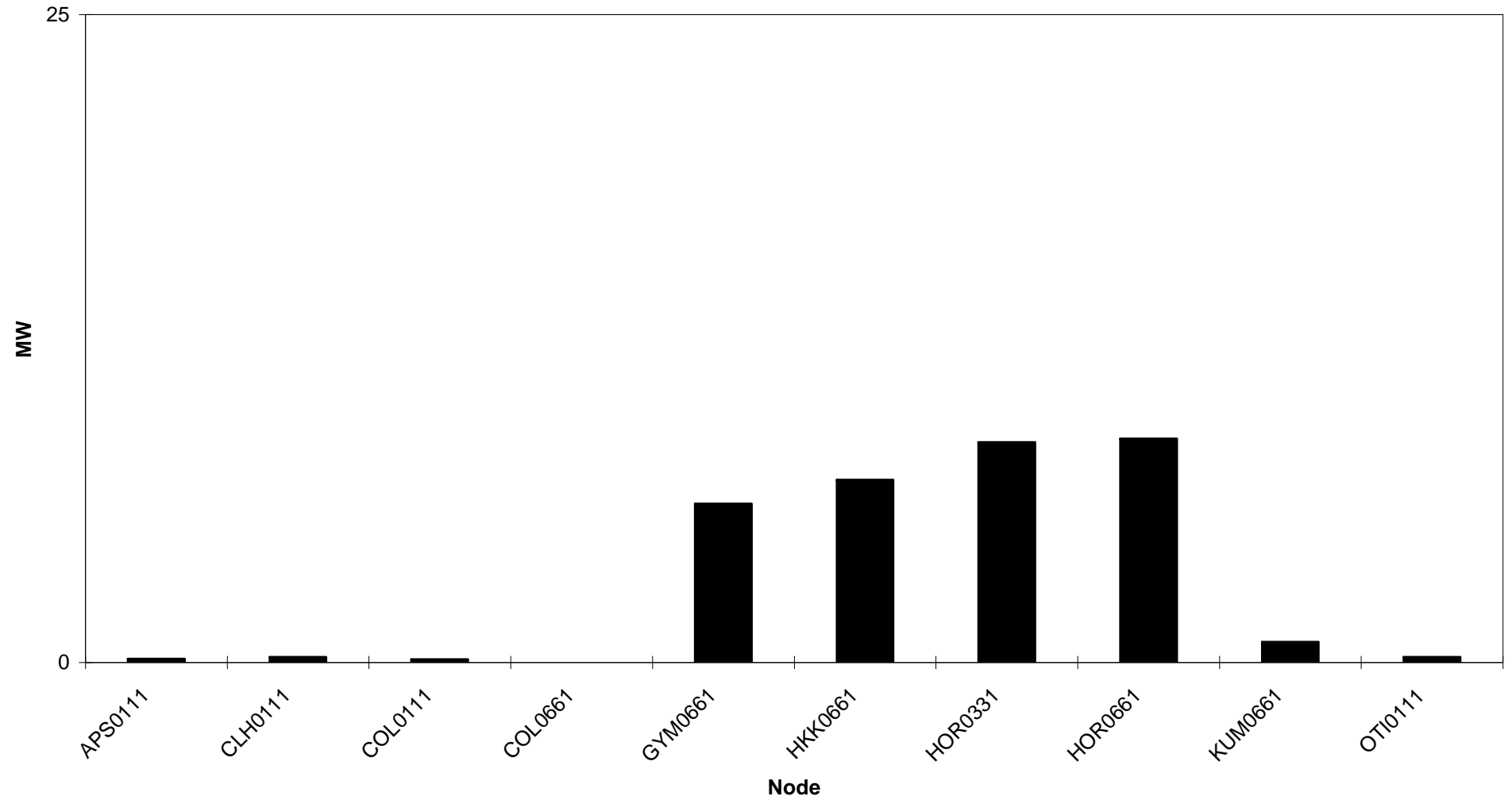
Average MW demand Grid Zone 10



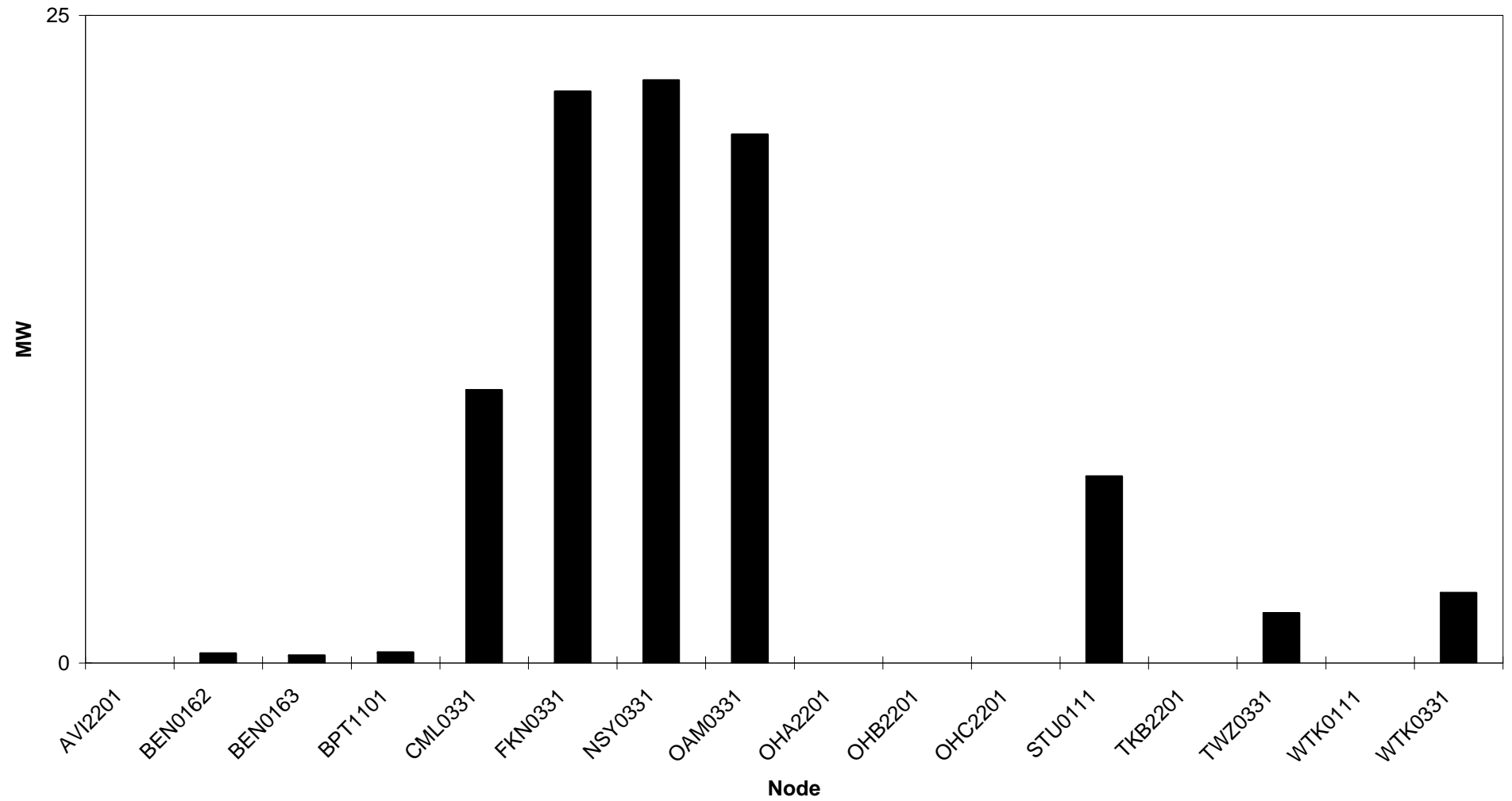
Average MW demand Grid Zone 11



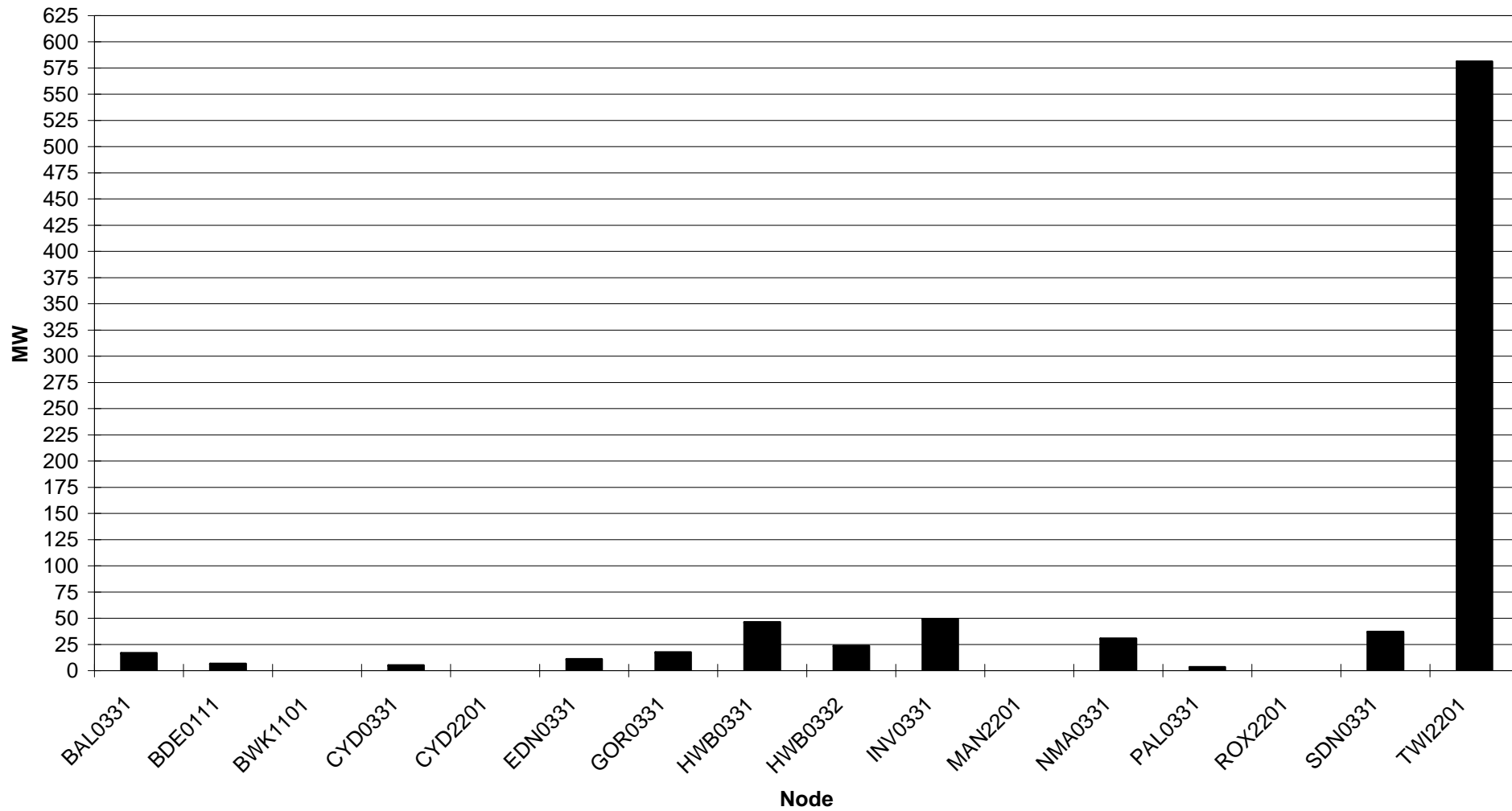
Average MW demand Grid Zone 12



Average MW demand Grid Zone 13



Average MW demand Grid Zone 14



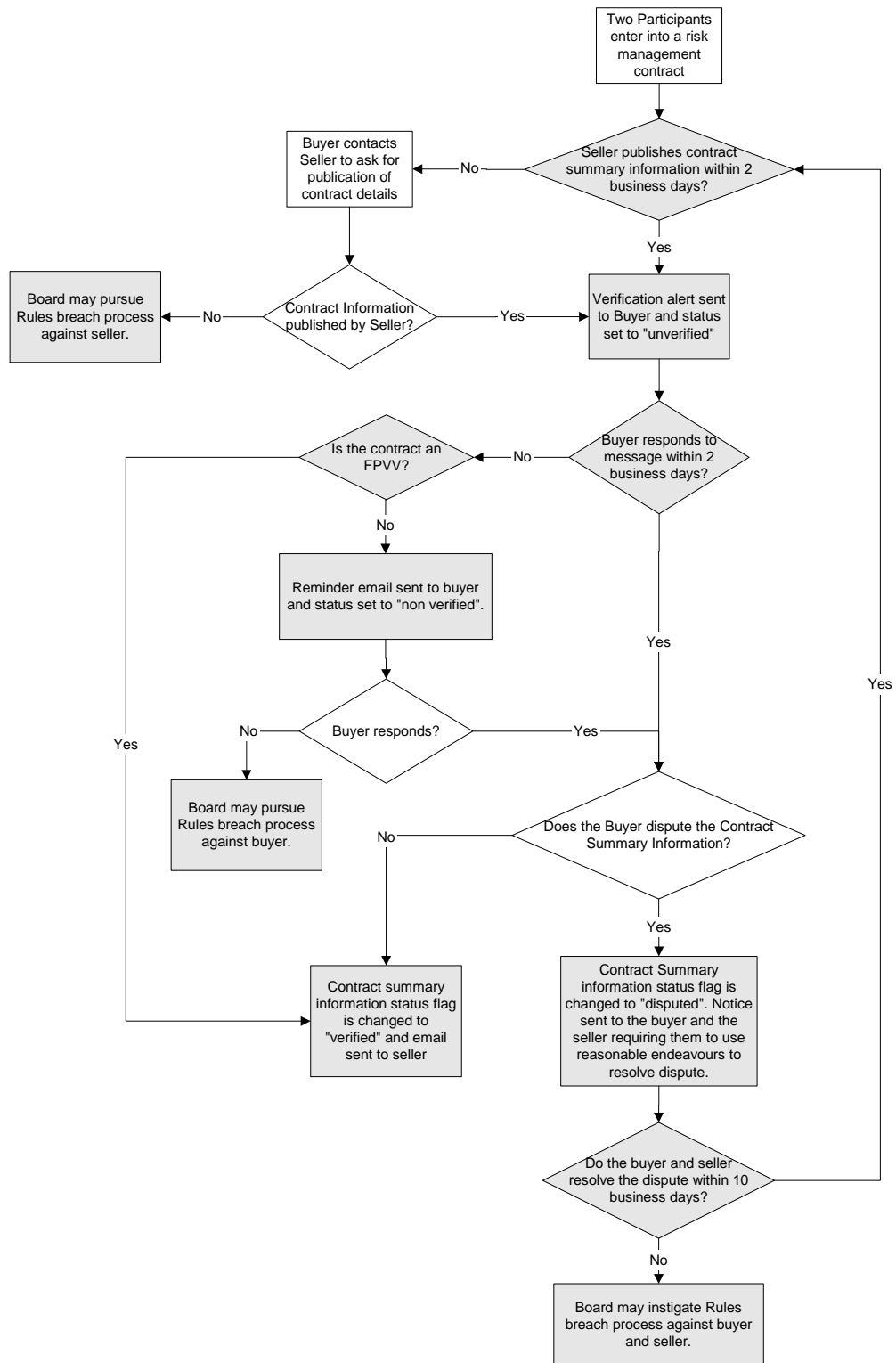
Appendix F. Analysis of location factors within each Grid Zone

Grid Zone	Description	Mean	Std Deviation
GZ1	Northland	1.07	0.09
GZ2	Auckland	1.04	0.10
GZ3	Hamilton	1.01	0.08
GZ4	Edgecumbe	1.01	0.07
GZ5	Hawkes Bay	1.01	0.08
GZ6	Taranaki	0.97	0.06
GZ7	Bunnythorpe	1.00	0.05
GZ8	Wellington	1.01	0.01
GZ9	Nelson	1.04	0.16
GZ10	Christchurch	1.00	0.15
GZ11	Canterbury	0.94	0.14
GZ12	West Coast	1.00	0.18
GZ13	Otago	0.91	0.14
GZ14	Southland	0.93	0.15

It should be noted that the high pricing outcomes at OTA1101 have been removed for calculation of the mean and standard deviation in the table above. If the high prices are included in these calculations the outcome for Grid Zone 2 is 1.08 and 0.50 for the mean and standard deviation respectively.

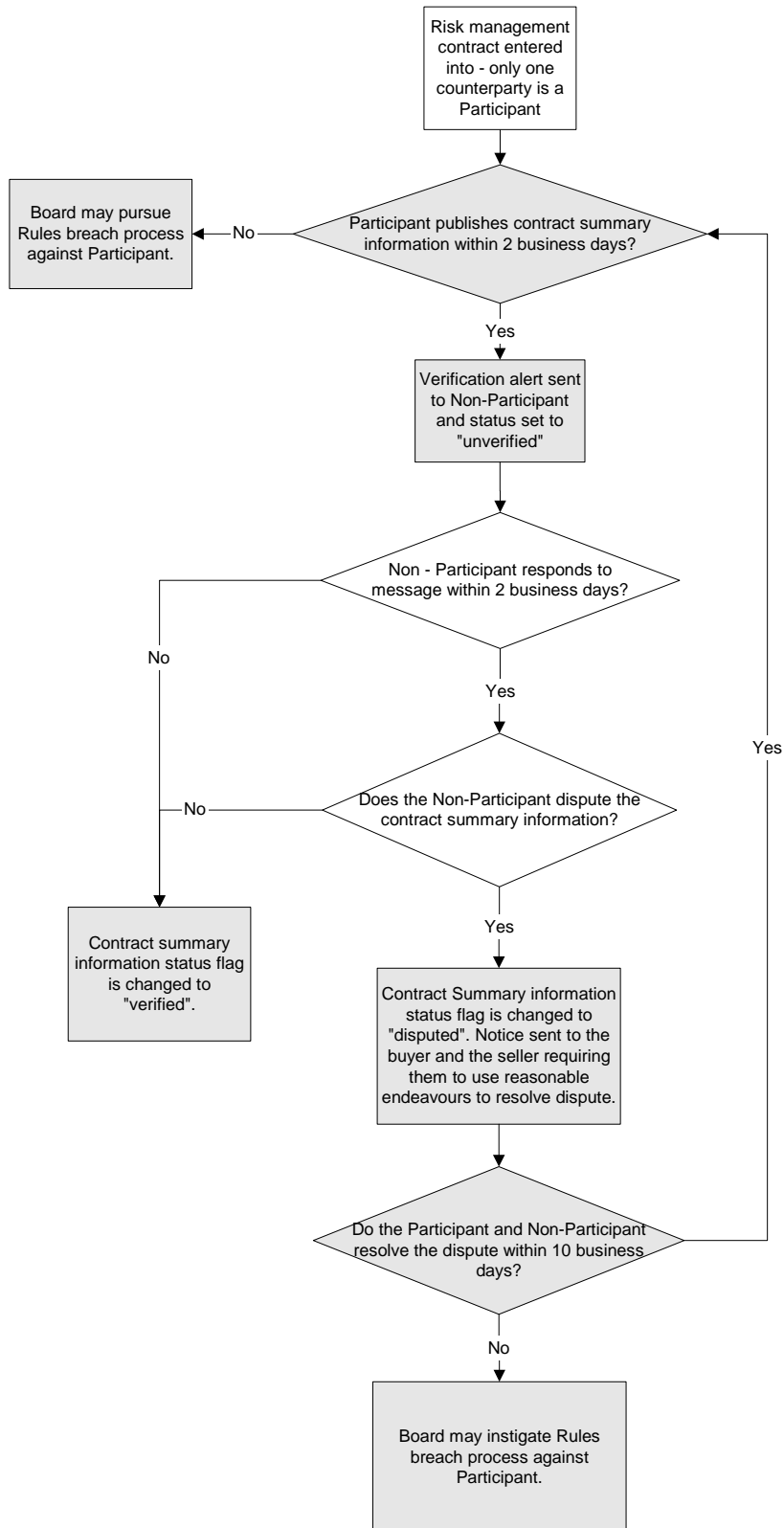
Appendix G. Flow chart of publication process

Both counterparties are Participants



- Signifies items that are contained in the rules

Only one counterparty is a Participant



- Signifies items that are contained in the rules

Appendix H. Example of Disclosure Of Risk Management Contract Information Input Form

Disclosure Of Risk Management Contract Information Input Form

Party Name	Genesis Power Limited
Country/Party Name	<input type="text" value="enter"/> or <input type="text" value="Contact Energy"/>
Trade Date	<input type="text" value="dd/mm/yyyy"/>
Quantity	<input type="text"/> MW
Quantity >30 MW	<input type="checkbox"/>
Grid Zone area	<input type="text" value="1"/>
Effective Date	<input type="text" value="dd/mm/yyyy"/>
Termination Date	<input type="text" value="dd/mm/yyyy"/>
Contract Term >2 Years but <10 Years	<input type="checkbox"/>
Contract Term >10 Years	<input type="checkbox"/>
Contract Price	<input type="text"/> \$
Contract Type	<input type="text" value="CFD"/>
Profile of the contract(if applicable)	<input type="text" value="Flat"/>

<input type="checkbox"/> Adjustment Clause
<input type="checkbox"/> Force Majeure Clause
<input type="checkbox"/> Suspension Clause
<input type="checkbox"/> Special Credit Clause
<input type="checkbox"/> Any arrangement to pass-through certain costs, levies or tax (for example some form of carbon related charges)?
<input type="checkbox"/> Normalised Contract?

