



## The role of and prospects for the New Zealand Electricity Futures & Options Market

July 2011

The information provided is for educational purposes only and is not financial product advice. Contract specifications are subject to the non-disallowance process under the Corporations Act. ASX makes no representation or warranty with respect to the accuracy, completeness or currency of the content. The content does not constitute financial advice. Independent advice should be obtained before making investment decisions. To the extent permitted by law, ASX excludes all liability for any loss or damage arising in any way including by way of negligence.

# Outline

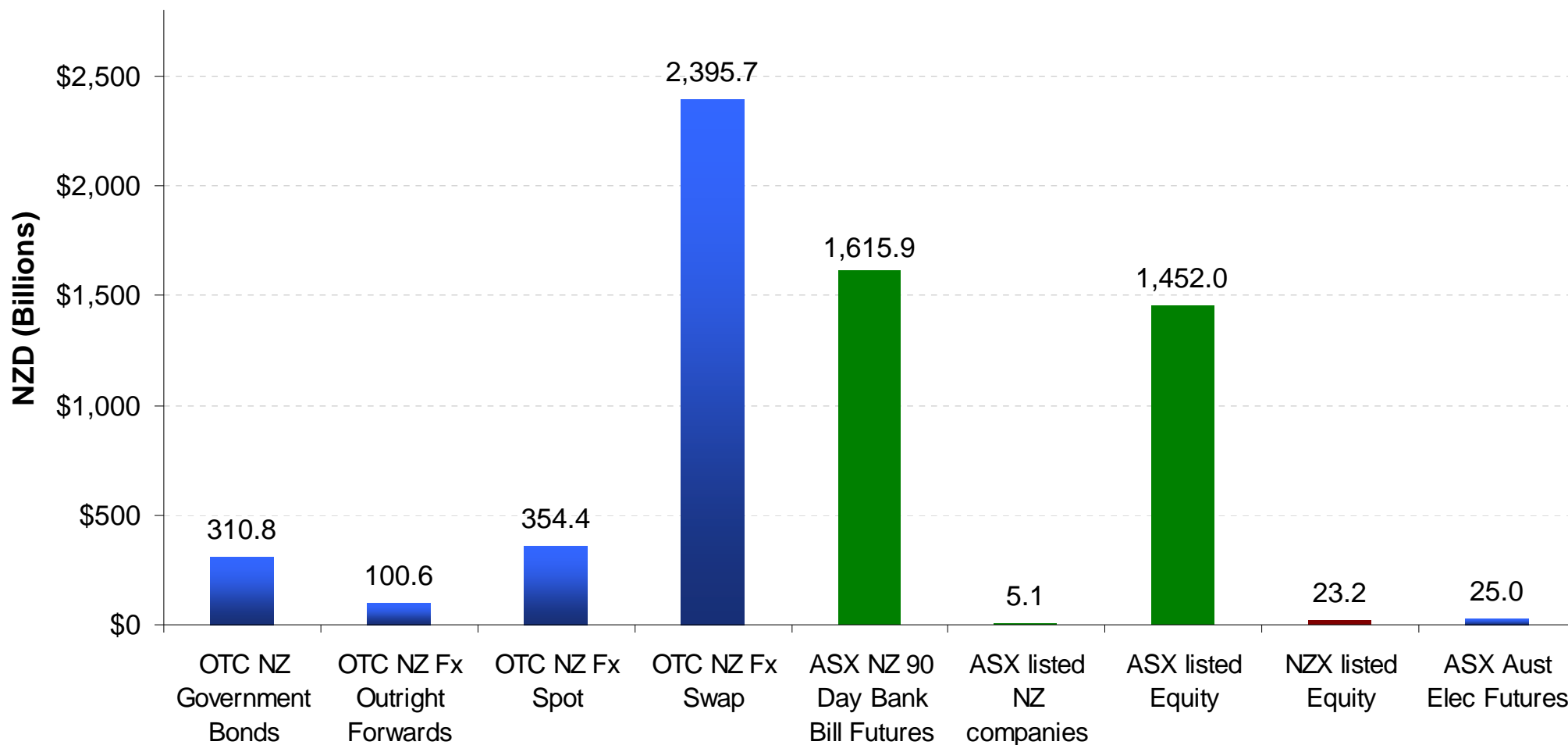
- ASX in New Zealand
- The role of futures markets
- NZ Electricity Futures
- Using the price signals – OTC and exchange traded
- Australian experience
- Future prospects for the market



# ASX in New Zealand



## Annual Turnover in New Zealand's Financial Markets (NZD) 2010



# ASX Energy & Environmental Markets



- **Current products :**

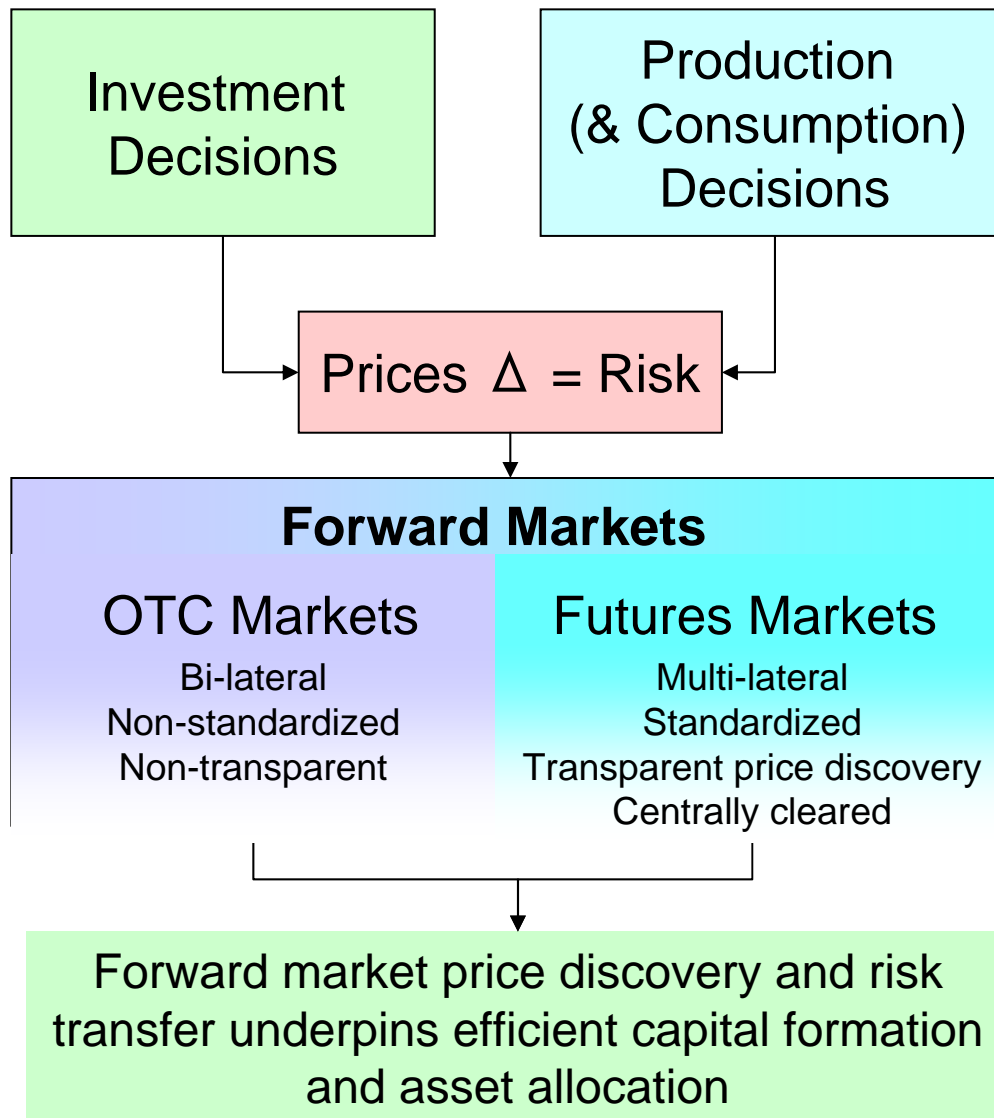
- Australian Electricity Futures & Options
- NZ Electricity Futures and Options (Listed 14 July 2009)
- Victorian Wholesale Gas Futures (Listed 21 July 2009)
- Renewable Energy Certificate (REC) Futures (Listed 17 May 2011)

- **In the pipeline:**

- Carbon futures (when Australian ETS legislation is passed)
- Water availability futures
- LNG futures?
- Iron Ore futures?



# Investment, risk and the role of forward markets



Investment in production is stimulated through the potential to make a return or profit. The greater the risk associated with an investment, the higher the required return.

Risk is present when future outcomes are unknown.

Investors seek to minimise these future risks by hedging - which is to 'lock in' a future price today.

Almost all interest rate, equity and commodity markets have well established OTC and Futures markets.

Futures are not a substitute for physical supply agreements

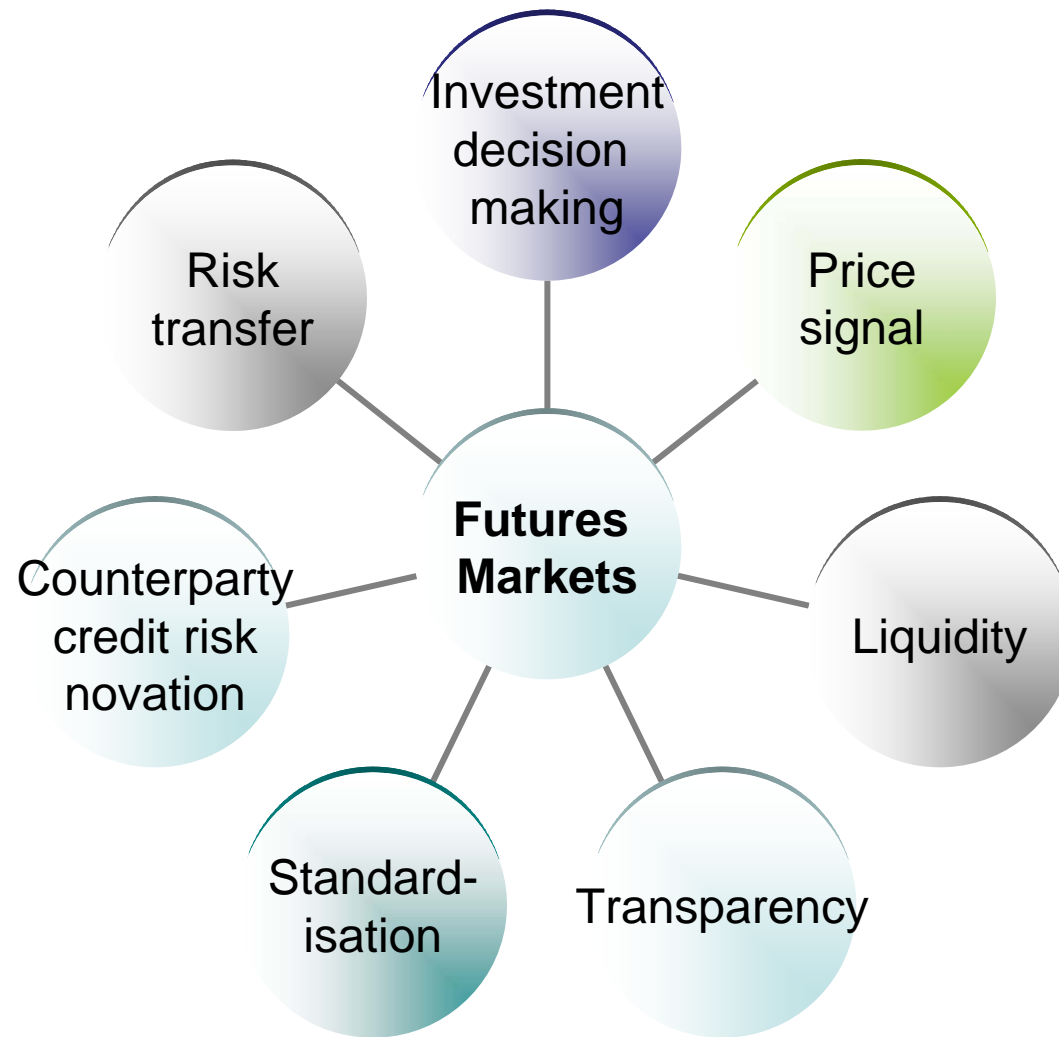
# Futures and OTC Forwards



<b>FORWARD CONTRACTS</b>	<b>FUTURES CONTRACTS</b>
Non-standardised contract (tailored to clients' needs)	Standardised contracts (expiry, quantity, grade)
Counterparty risk	Centrally cleared by Clearing House
Bi-lateral contract only	Contract novation
Non transparent nor regulated market	Regulated transparent market
No cash flow before contract maturity	Initial and variation margins during life of contract
Price only available to counterparty	Price available to the market via data vendors, ASX web-site and ISV's
Price negotiable. Bigger companies tend to get better prices than smaller companies.	Market prices available to all users



# The role of futures markets



# ASX NZ Electricity Futures

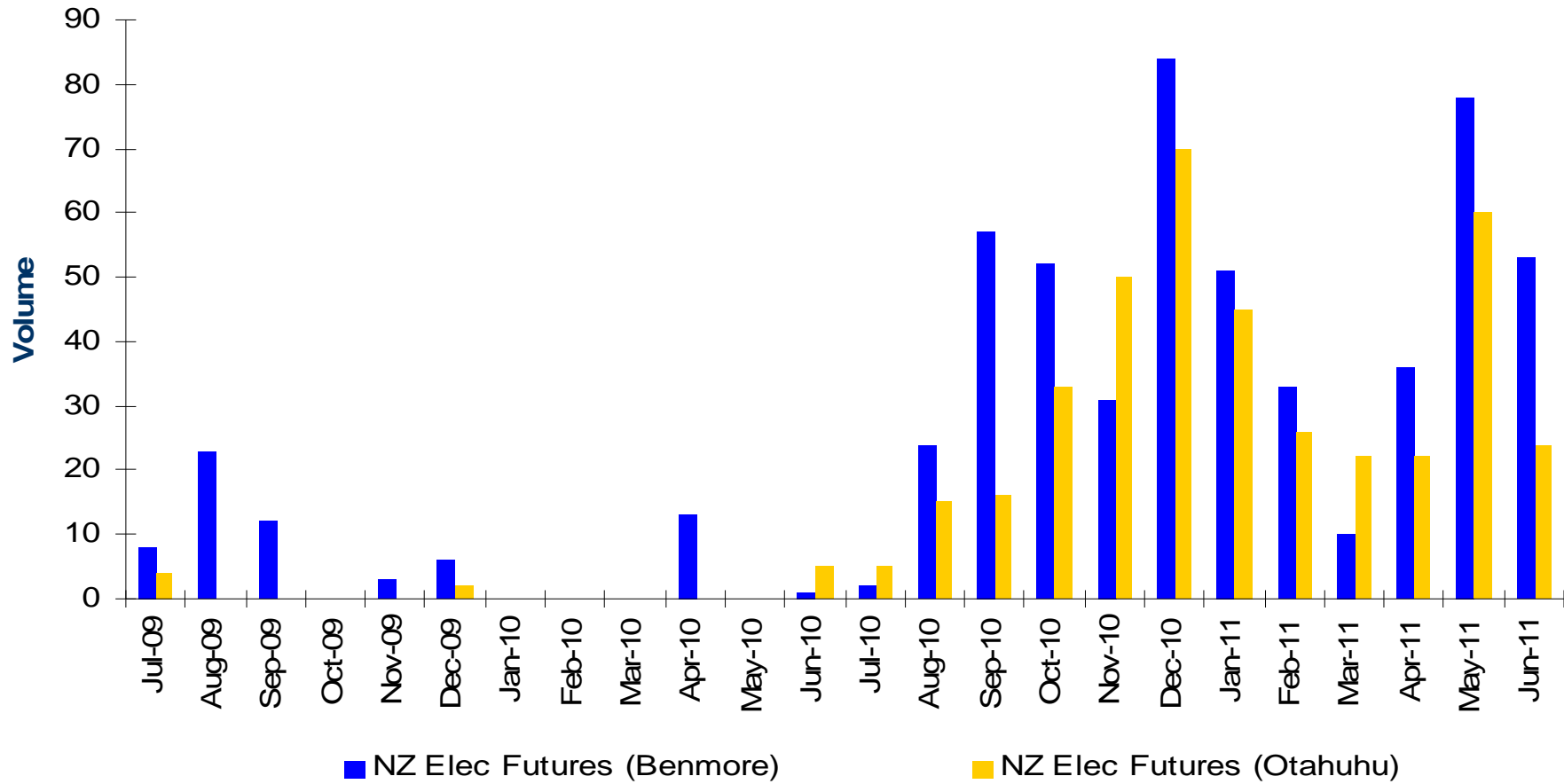


- ASX hedge products include futures and options contract against Benmore and Otahuhu nodes
- Additional products (caps and quarterly options) on the drawing board
- Four market makers providing robust price discovery and liquidity
- Numerous financial participants expressing an interest in trading and actively pursuing opportunities



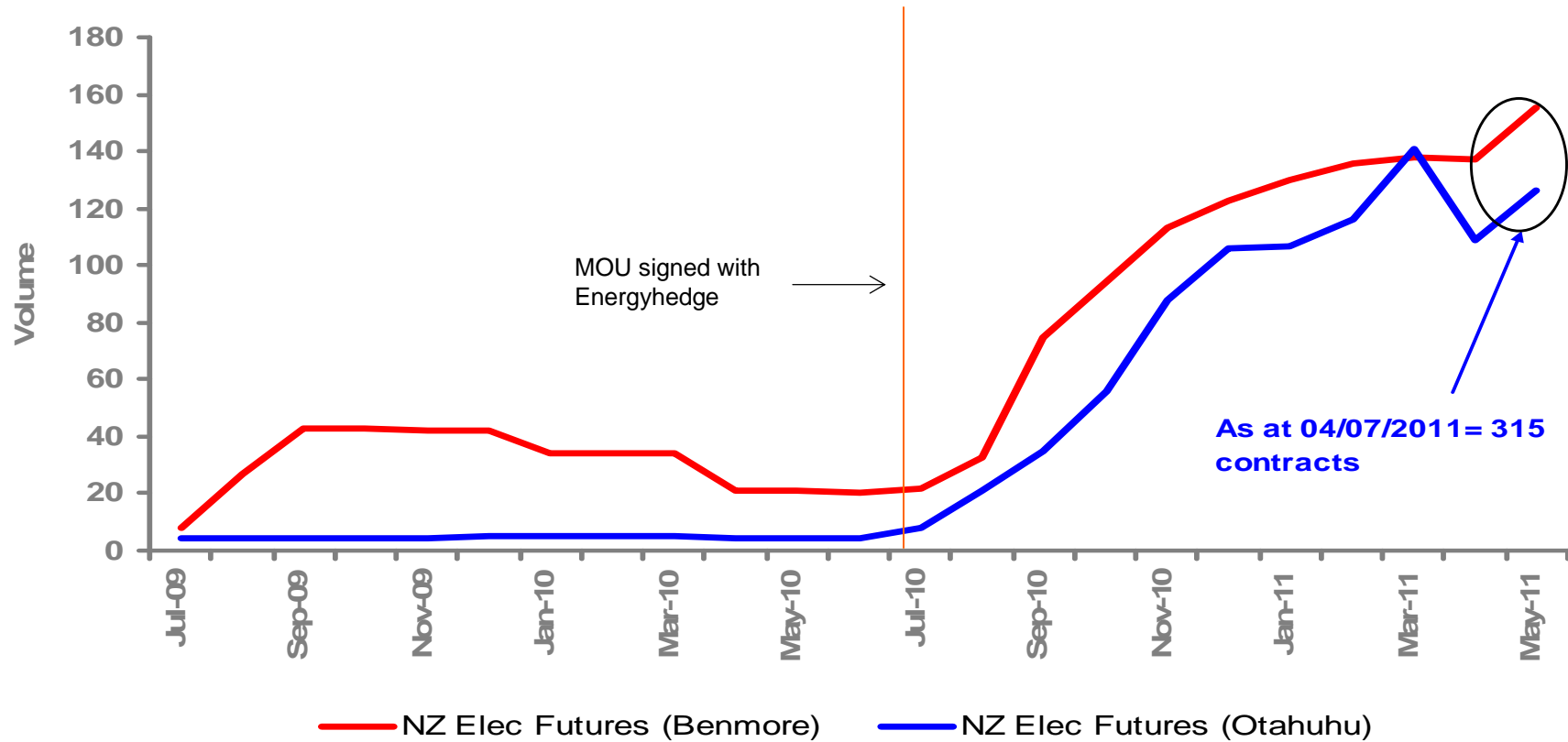
# Trading activity

## NZ Electricity Futures Volume

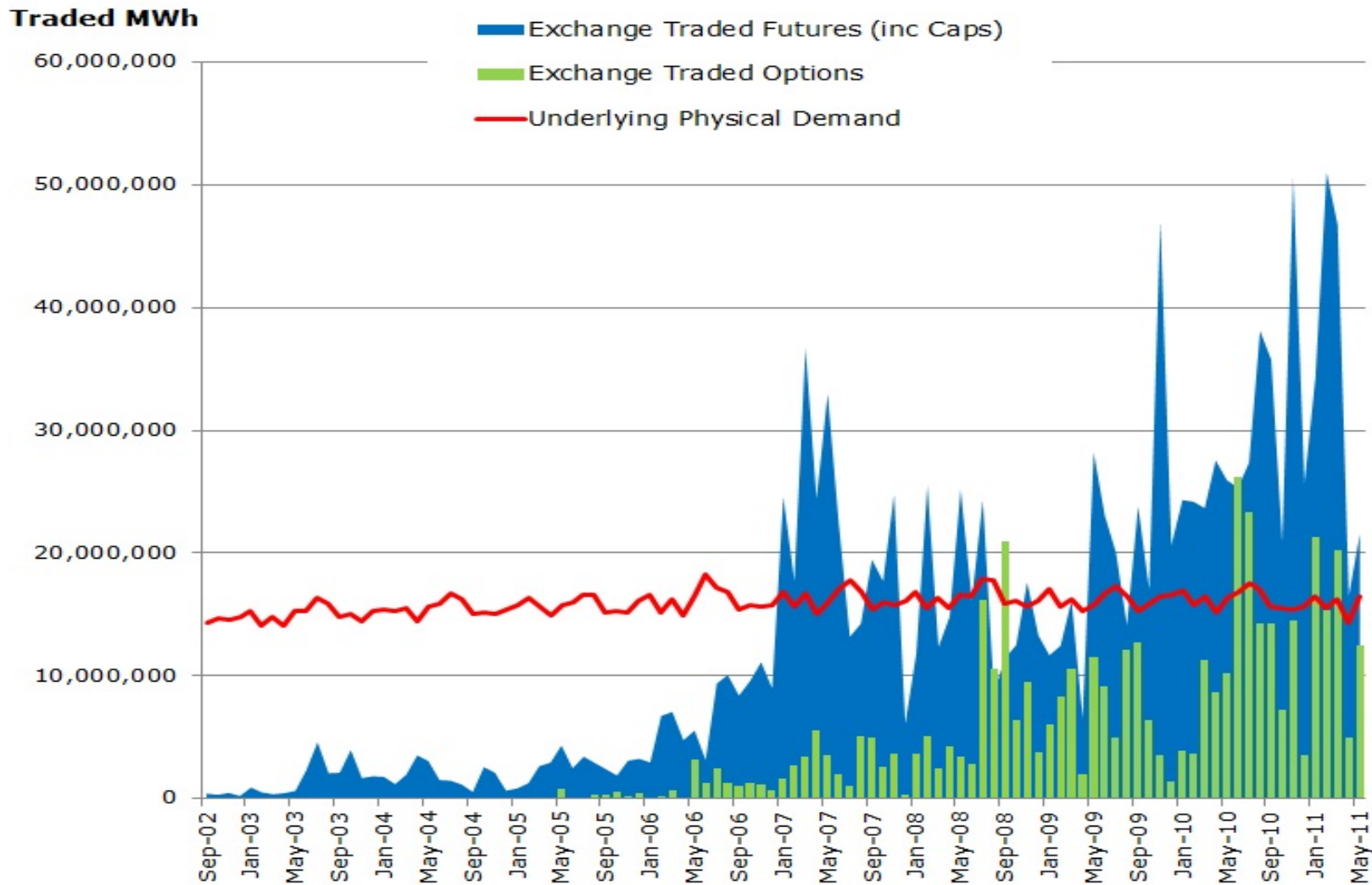


# Open Interest

## ASX NZ Electricity Futures Open Interest

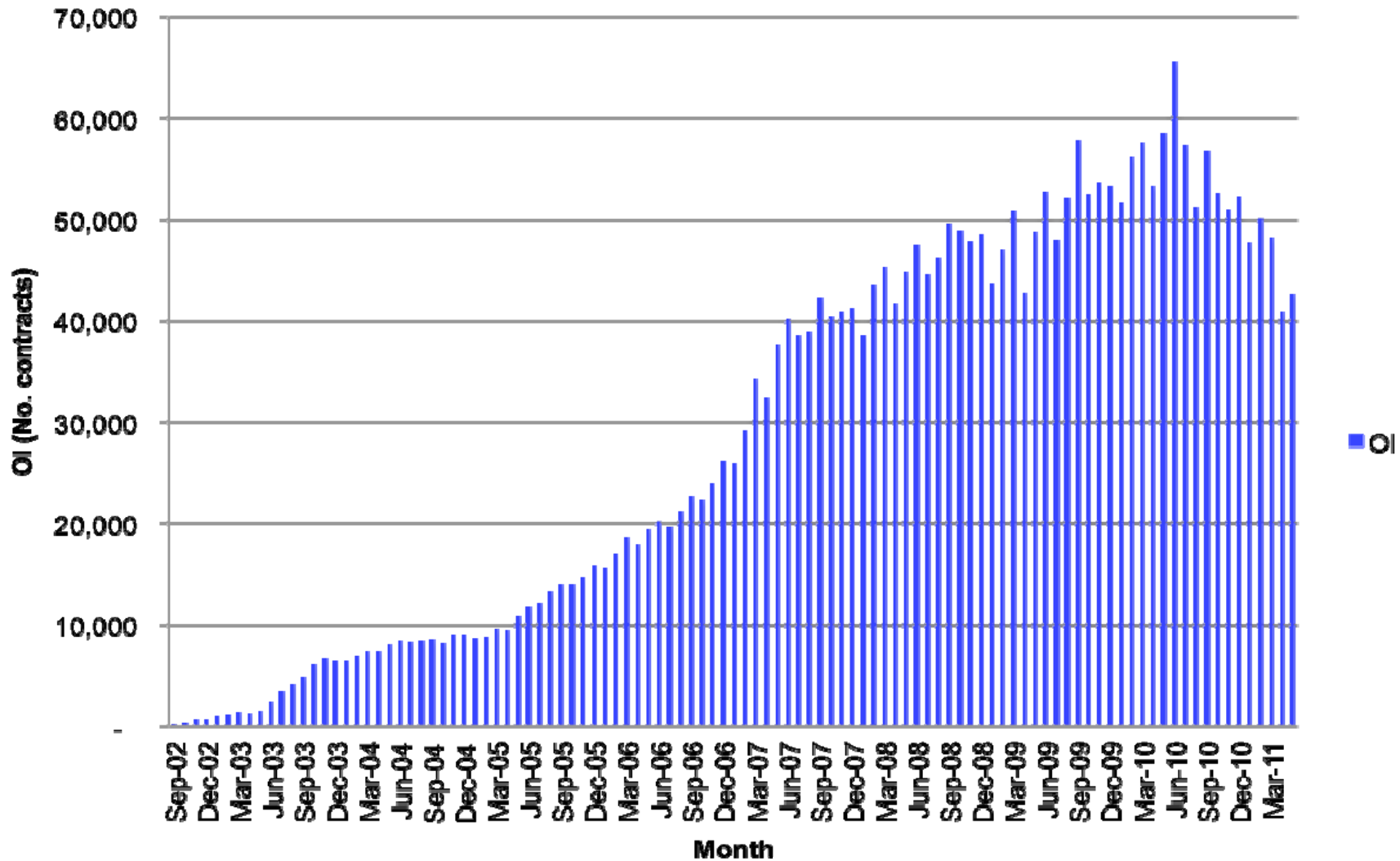


# Trading Volume – Australian market Exchange vs Physical

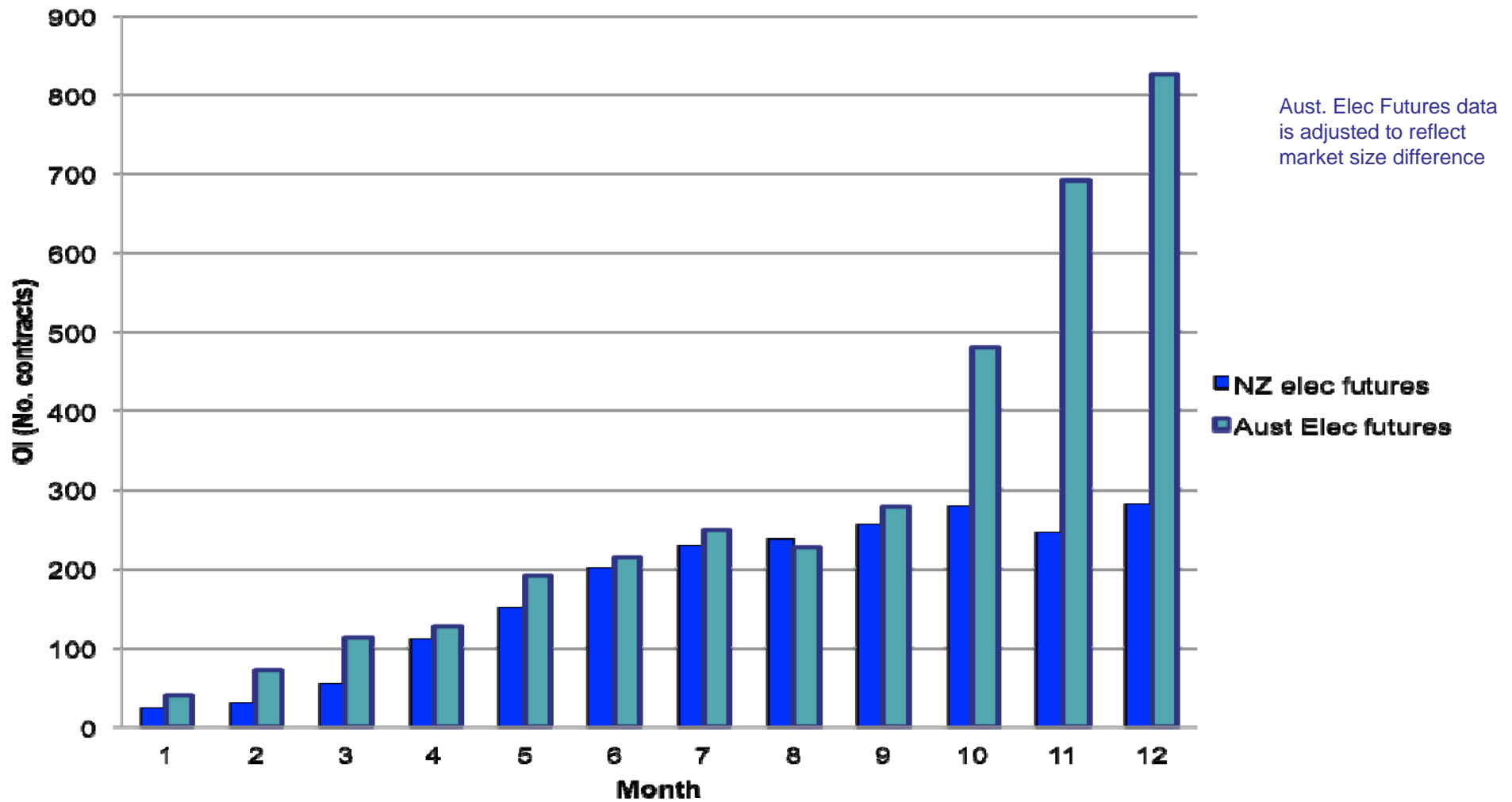


# Open Interest

d-cyphaTrade ASX Australian Electricity Futures & Options

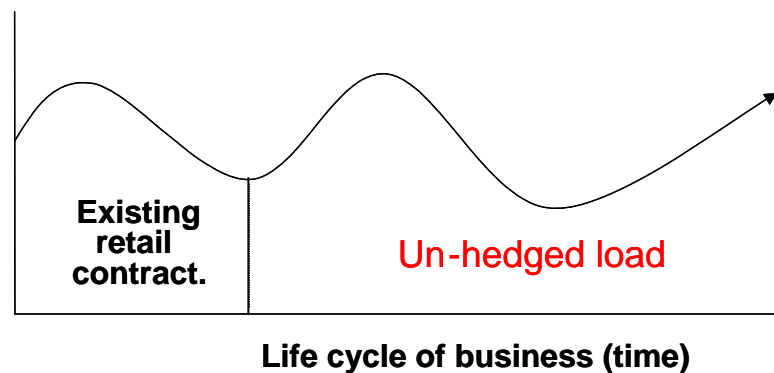


# Open Interest growth comparison Aus vs NZ Electricity Futures Market



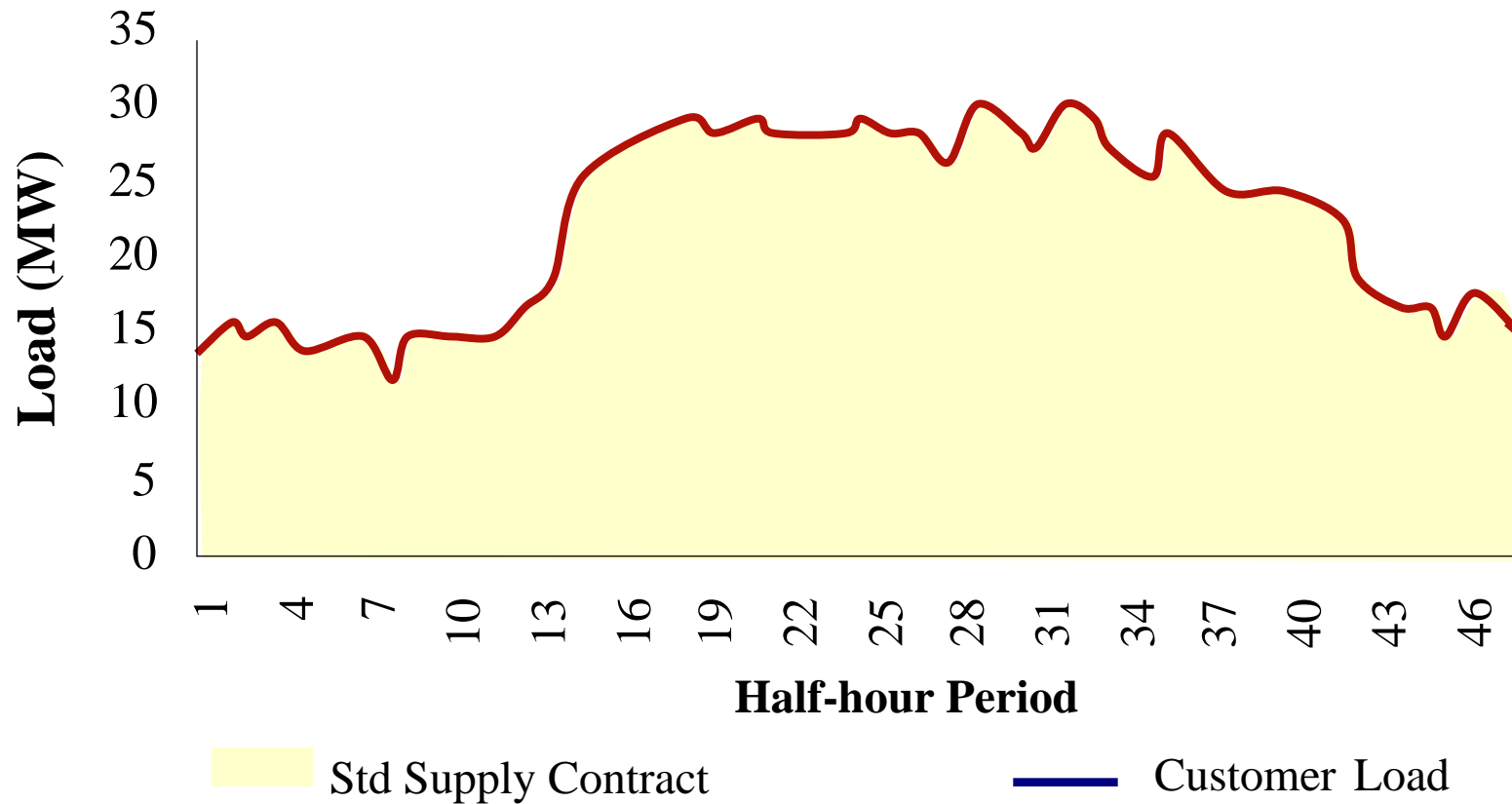
# Risk management challenge

- Traditional procurement options may not be best option for some energy users
- Active risk management approaches range from alternative procurement solutions to establishing a dedicated risk management program
- Active risk management is a characteristic of more developed industries e.g. crude oil, mining and metals
- Active risk management requires the separation of risks so that each component can be allocated to party who can most efficiently manage the risk
- Fundamental challenge - Long term exposure, short term hedge



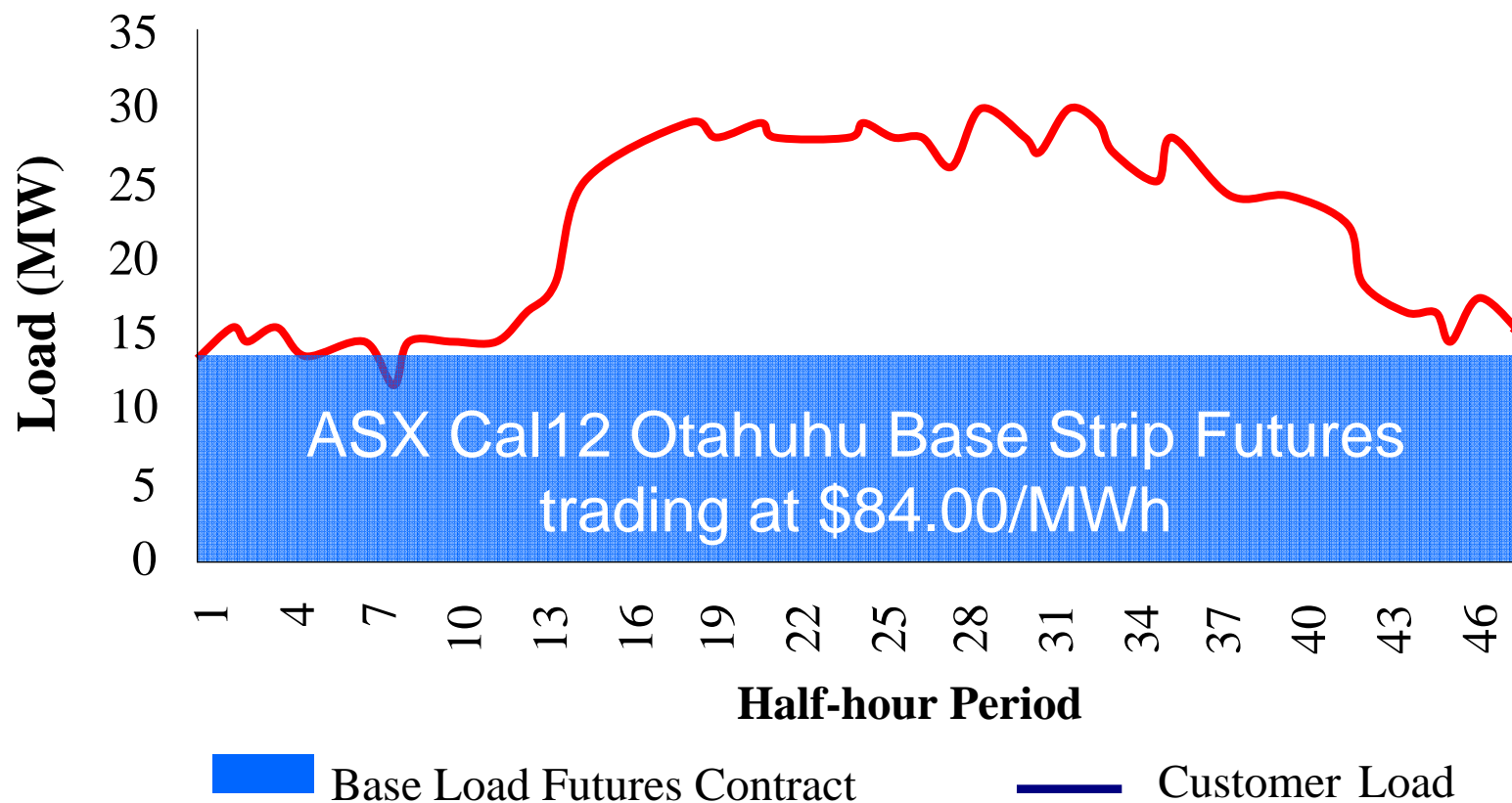
# Hedging - Standard Supply Contract

## Generic Expected Energy Consumption Profile Calendar Year 2012 against Otahuhu node @ \$125/MWh



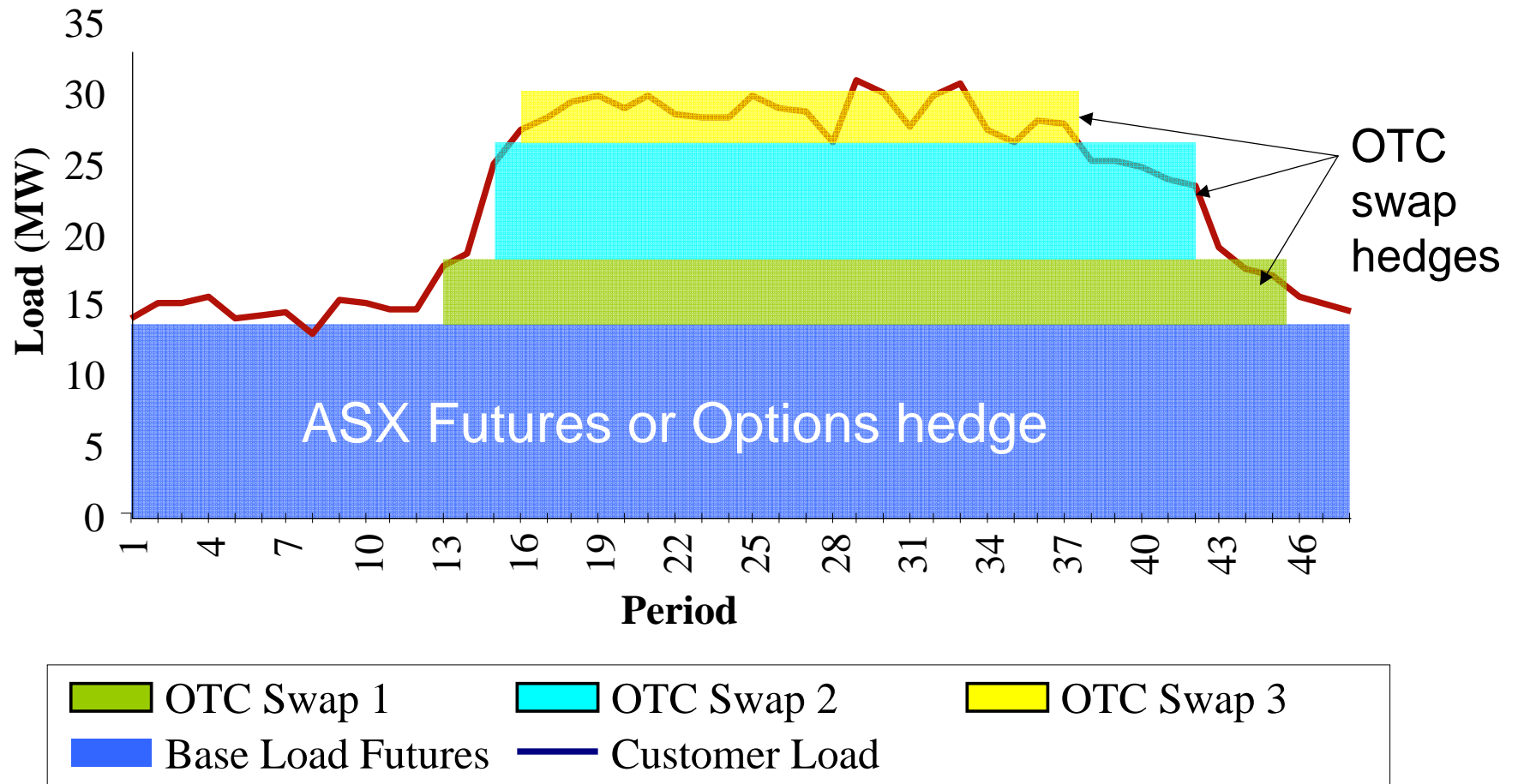
# Hedging – Using futures to cover base

## Generic Expected Energy Consumption Profile



# Portfolio Hedging - Futures + OTC

## Generic Expected Energy Consumption Profile



# Key messages

- A robust, transparent forward curve for NZ electricity hedging now exists
- Market activity is expected to increase as the number of users grow and liquidity increases
- New products will be rolled out as market demand and dynamics support them
- Education at all levels is critical - ASX and other service providers continue to offer
- Information is available on the ASX website and various other market sources for existing and intending participants
- Futures markets take time to develop (3-5 years is a typical observation window)



# Where to find out more....

## ASX New Zealand Electricity Futures & Options



### What are New Zealand Electricity Futures & Options?

ASX New Zealand Electricity Futures and Options are standardised and centrally cleared financial contracts structured as cash-settled contracts for difference (CFD) against two grid reference nodes (Otahuhu and Benmore) in the New Zealand electricity market.

### Why trade New Zealand Electricity Futures & Options?

ASX New Zealand Electricity Futures and Options provide a robust mechanism for companies with interest in or exposure to the New Zealand electricity market to anonymously manage their price and counterparty risks.

[More about New Zealand Electricity Futures & Options >>](#)

### ASX New Zealand Electricity Futures & Options

Otahuhu & Benmore - The ASX listed New Zealand Electricity futures and options contracts on Tuesday 14 July 2009.



Trading strategies



Find a broker



Booklets & brochures



Trading info



Contract specs



Presentations



Media releases



Articles & submissions



Cleantech listings



Energy listings



FAQs



Industry web links



ASX User Group

[About ASX](#)

[Media articles](#)

[MyASX](#)

[Glossary](#)

# Price information



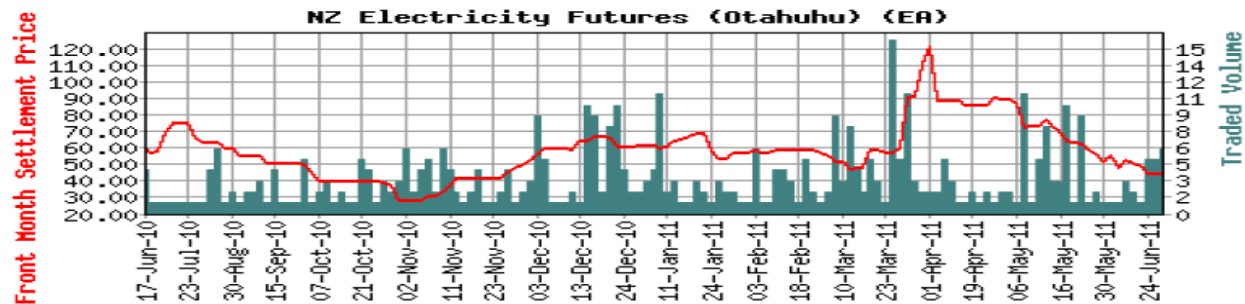
Commodities:

All Prices are DELAYED by a minimum of 15 minutes.

## NZ Electricity Futures (Otago)

[REFRESH](#)

Expiry	Bid	Ask	Open	High	Low	Last Trade	Last Trade Date	Last Trade Time	Change	Traded Volume	Previous Settlement
Sep 11	76.85	81.00					30/6/11	13:50			79.00
Dec 11	75.45	82.00					30/6/11	13:49			77.00
Mar 12	76.80	84.00					30/6/11	13:34			80.75
Jun 12	100.00	108.50					29/6/11	13:40			108.00
Sep 12	91.00	98.45					29/6/11	13:40			98.00
Dec 12	66.00	71.00					29/6/11	13:43			71.00
Mar 13	75.00	82.00					29/6/11	13:58			80.00
Jun 13	102.60	110.00					12/5/11	13:43			108.00
Sep 13	95.45	103.95					20/5/11	13:53			101.00
Dec 13	66.60	70.00									68.20
Mar 14	76.00	81.00					9/5/11	13:33			82.00
Jun 14	107.85	117.90					13/1/11	13:59			112.00
Sep 14	106.50	115.50					1/2/11	13:38			110.00
Dec 14	67.05	73.50					1/12/10	13:56			70.00



# Further information

[www.asx.com.au/nzelectricity](http://www.asx.com.au/nzelectricity)

[nzelectricity@asx.com.au](mailto:nzelectricity@asx.com.au)

Ken Chapman  
GM- Futures & Options  
ASX Limited

Office: +61 2 9227 0094

