



**GAS** INDUSTRY  
COMPANY LIMITED



# Stitching Together the NZ Gas Story

New Zealand Downstream Forum, Auckland

6 – 7 March 2012

Steve Bielby, Chief Executive - Gas Industry Co

Repair 'done by tomorrow'

Vector, the company responsible for maintaining the Maui pipeline, expects to have it repaired tomorrow, weather permitting.

Gas supply has been restored to essential services including hospitals, most dairy companies, small businesses and small gas users. Households weren't affected, but Mr Stassny said people still needed to be frugal.

nzherald.co.nz



# Pipe fault threatens to wipe out up gains

Americas say they'll rebel but as essential services

## gas leak stops cremations

the industry And all are being kept



### THE COST

Farmers throwing away \$20 million worth of milk a day.

# Delight as small firms get their gas back on

Larger businesses informed they must wait until the weekend for resumption of service

by Lincoln Tan

Life is slowly returning to normal for thousands of businesses hit by the leak in the Maui gas pipeline, as cafes and small businesses were yesterday told they could turn the gas back on.

Gas is available to residential customers.



## Gas leak likely to cripple thousands of businesses

Hamish Rutherford and Andrea Fox

EXPERTS were last night preparing to excavate around a gas leak which threatens to cripple thousands of upper North Island businesses.

All commercial and industrial users in Bay of Plenty and northward have been advised to stop using gas after the leak.

vice," she said. The minister said the leak was the first incident in more than 30 years for the Maui pipeline. It was the result of underground movements and had nothing to do with maintenance.

Brosnan under the pipeline is thought to have caused a 12cm rupture.

Victor chief executive Simon McKenzie said yesterday that excavation to repair the pipe was "really well" overnight and the pipe was found to be in good condition with "no evidence of corrosion".

A failed weld is believed to have caused the

# Gas outage will cause big food price hikes

are not thought to be under threat. The Maui Pipeline, owned by several exploration companies, carries most of the gas supplies.

Rutherford and Andrea Fox

IONS from a leak in flows north of Taranaki ripple through the Bay of Plenty, with core industries all headed for a sharp drop in prices of goods to scar.

## We're lining up some contingency plans, like restricting heating in non-clinical areas.

Mark Ferris, District Health Officer



Te Rapa processing site near Hamilton.

About 11 million litres of milk was to be dumped yesterday at three of 12 Fonterra plants closed - Te Rapa and McEwen in Waikato and Maungatapu in Northland.

Meat processor Afico's plant near Hamilton was also closed.

Worthy, manufacturer for the Employers and Manufacturers Association, said the leak was forcing some manufacturers to shut down operations.

part of things in the

# Industry takes big hit as gas line cracks

Andrea Fox, Hamish Rutherford and Nick Krause

FARMERS dumped milk worth \$20 million, growers feared crops, elective surgery halted, and a shortage of gas after a crack in the pipeline.

who shipped in gas bottles to stay open, and market gardeners who had to maintain the heat in their glass houses, so their crops could ripen.

While a backup pipeline remained open, it was estimated only about 15 per cent of normal supplies were getting through. Vector expected to finish the pipeline tomorrow and to receive the key

## Maui gas leak: \$20m-a-day milk throwaway

Shutdown of



### MAUI GAS LEAK

capacity, he said.

Vector chief executive Simon McKenzie said the leak appeared to have been the result of a failed weld, and there had been no problems with the Maui line in its 30-year history.

Fonterra's 12 plants worth around \$20 million a day though affected farmers will be operating normally and in

Shutdown of ruptured pipeline means farmers, hospitals and power stations

by Amelia Wade

Farmers are throwing away \$20 million of milk a day because of a leak which has closed a Maui gas pipeline. All industrial gas-users in the upper North Island, including hospitals, power stations and universities, have been urged to stop using the fuel.

Fonterra has shut all but two of its plants north of Taupo because they cannot process milk without gas.

Hospitals in Waikato are asking patients to bring in their own pyjamas and towels as the linen-cleaning company for all hospitals from the central North Island upwards moves its operations to Hamilton.

The pipeline, which links the Maui gas field to the upper North Island, was closed yesterday morning after a serious leak was found in the remote White Cliffs area, north of New Plymouth.

# Beer drinkers hit by Maui leak

and milk supplies start to run low



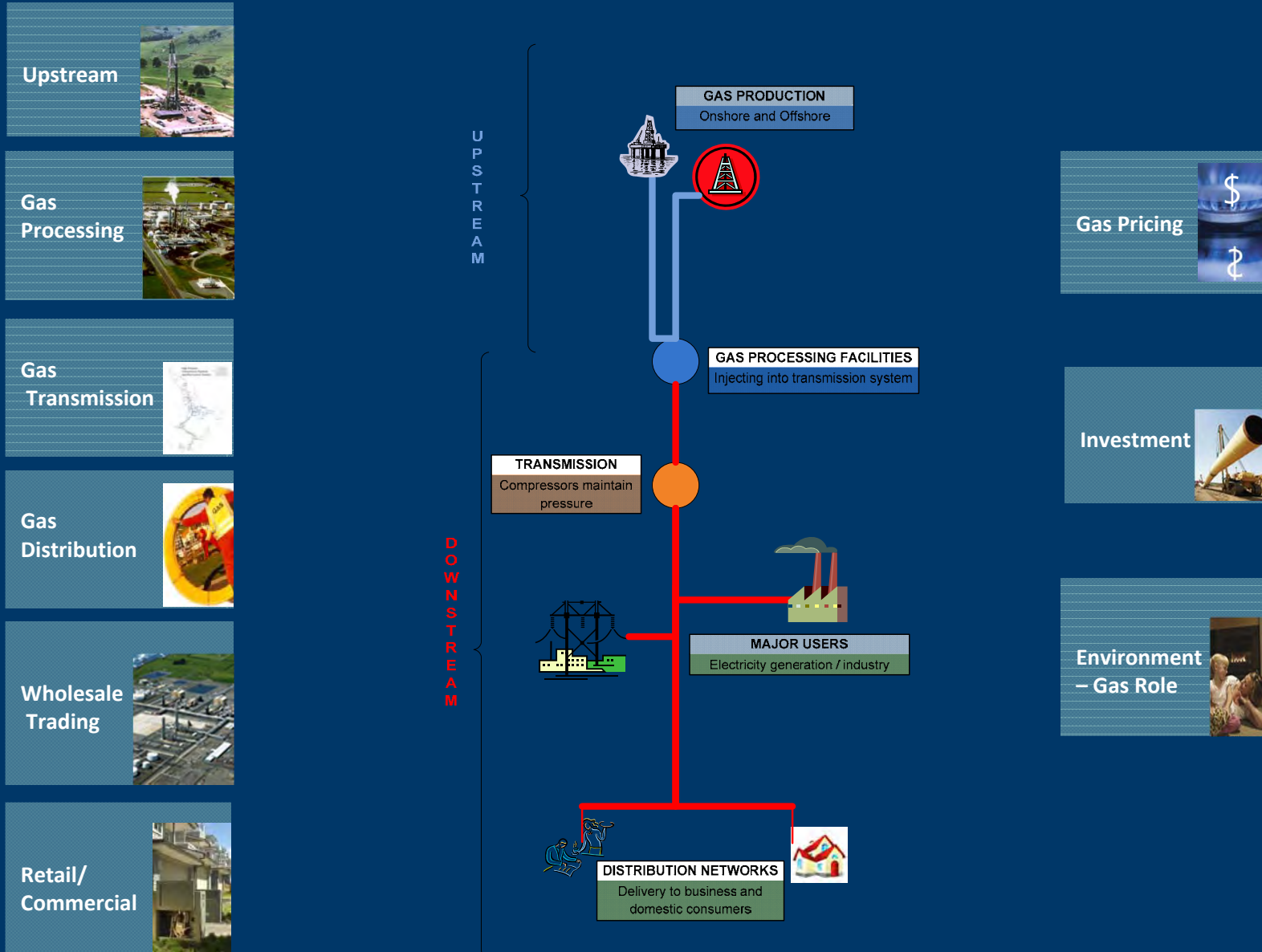




## Maui Pipeline Outage - Lessons

- Consumers suffered substantial loss
- Pipeline resilient (1 in 34 year event)
- The 'decibel rating preparedness test'
- Critical contingency system provides response framework
- Consumer contingency planning vital
- Overall: We value a NZ with robust/reliable gas supply

# Stitching together the New Zealand Gas Story



# Stitching together the NZ Gas Story

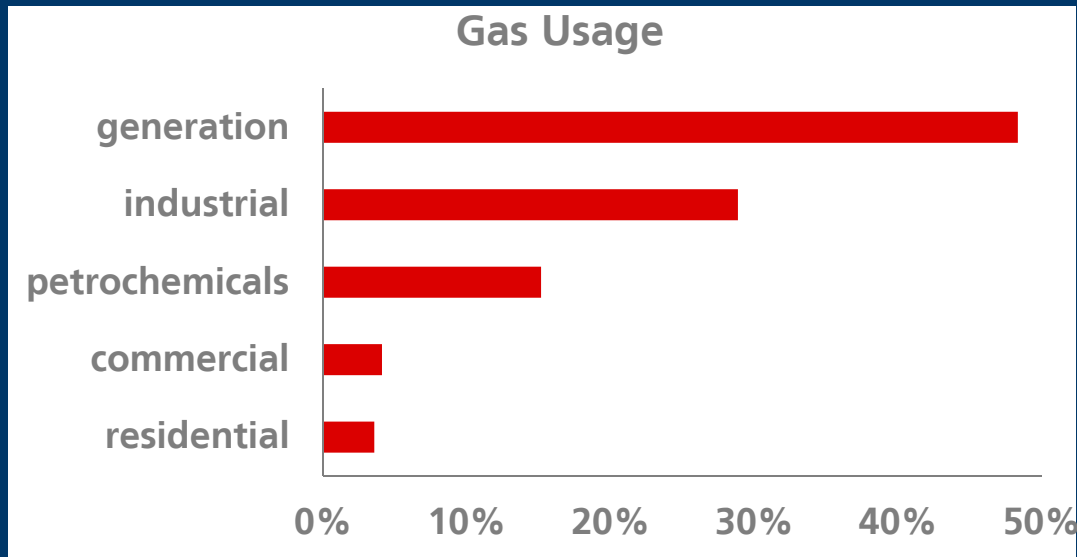
- Where we are up to
- Key issues for the industry



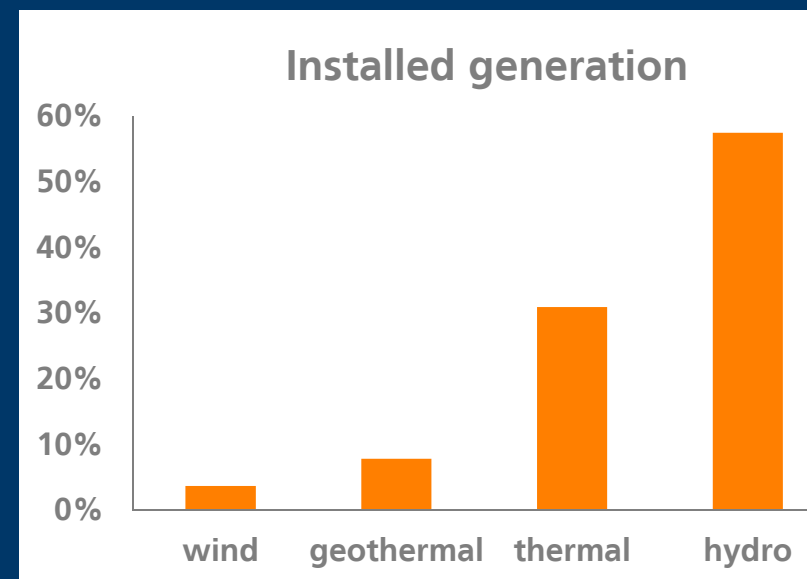
## NZ Gas Story 2005-10: the trends are good

- Net gas production ↑
- Remaining gas reserves ↑
- Wells drilled ↑
- Petroleum mining licence expenditure ↑
- Producing fields (all Taranaki) ↑
- Gas consumers ↑
- Total transmission pipeline (km) →
- Total distribution networks ↑

# NZ Gas Story 2005-10: the trends are good



- 7 or more retailers at 91% of gas gates
- 16% p.a. customer switching (more under 'What's My Number')



# Gas market requires fit for purpose arrangements

## Electricity



- Essential energy
- 1,974,000 consumers
- Sophisticated wholesale market
- NZ wide

## Gas



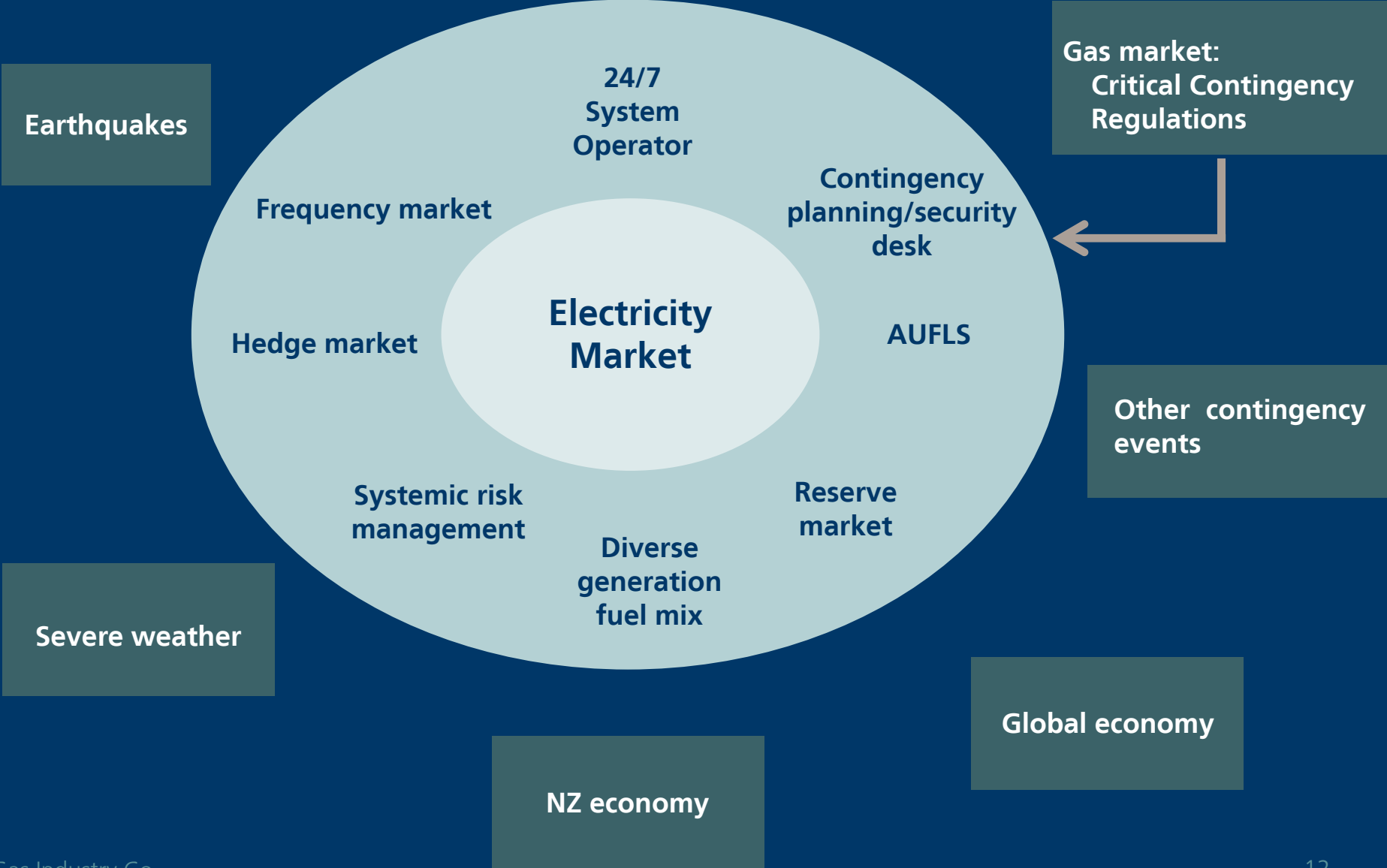
- Optional energy
- 255,000 consumers
- Multiple fields
- Domestic production
- Bilateral wholesale market
- North Island only

## LPG



- Optional energy
- ≈100,000 bulk/ domestic consumers
- 10,000 vehicles
- 9kg bottle users – countless!
- Domestic/import capability
- NZ wide

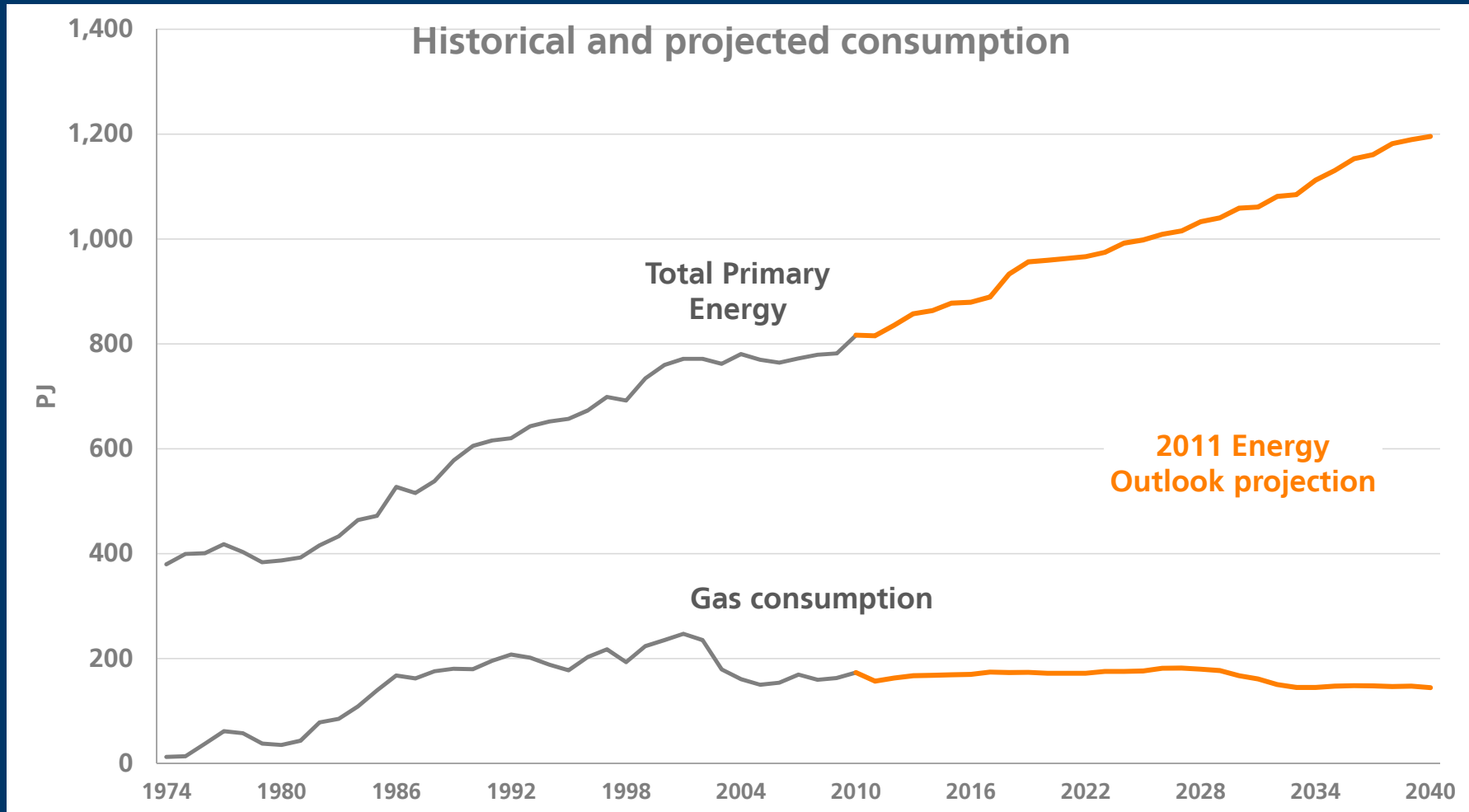
# Gas supply is critical to electricity supply



# Gas is growing internationally

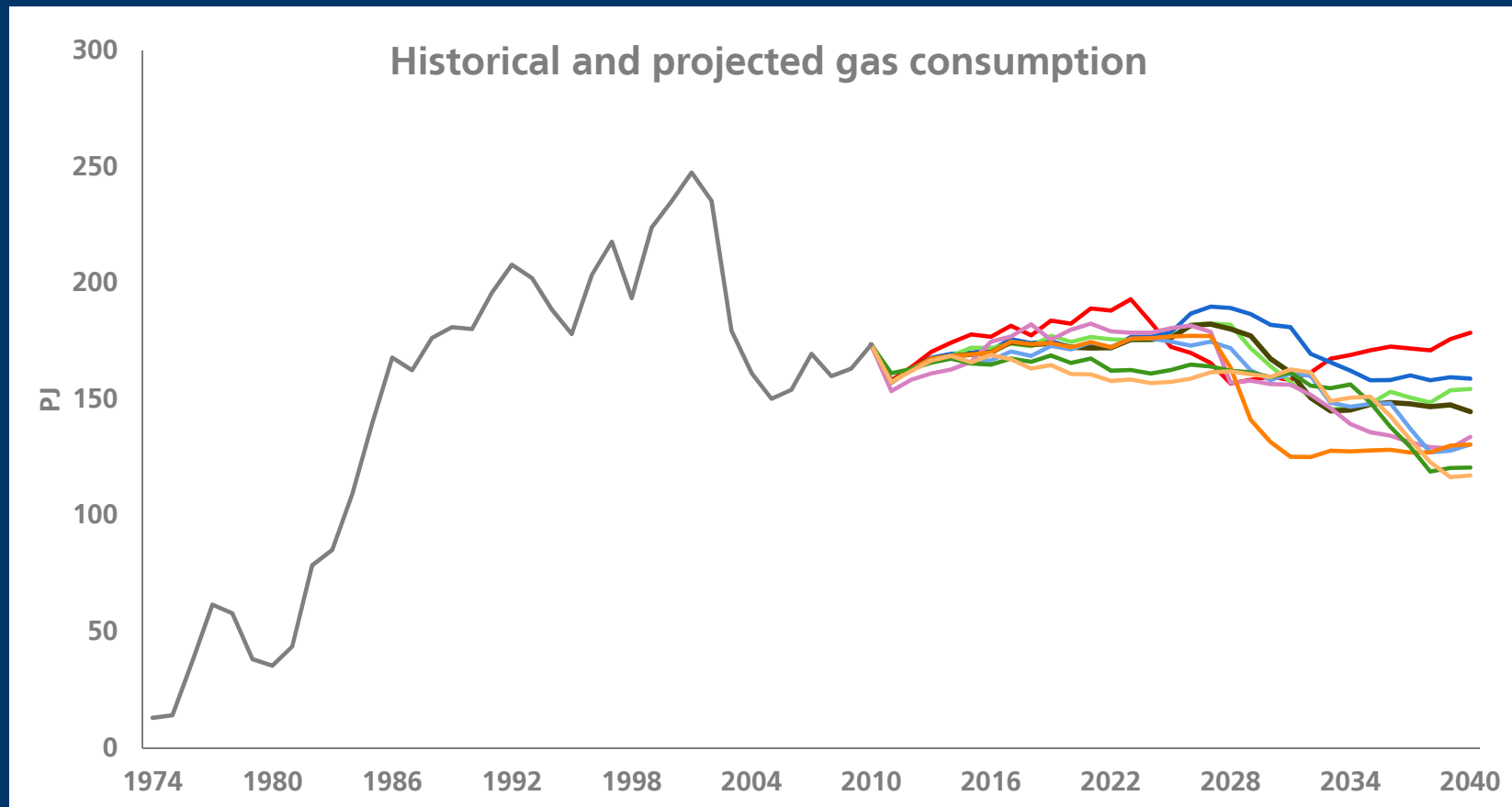
- Energy demand growth underpins global economic growth and prosperity goals
- Internationalisation of energy markets
- Carbon futures – 'golden age of gas' ??
- Sustainability - climate change drivers; 'world in 2050'
- Environmental management concerns grow

# Gas is a core part of NZ's energy future



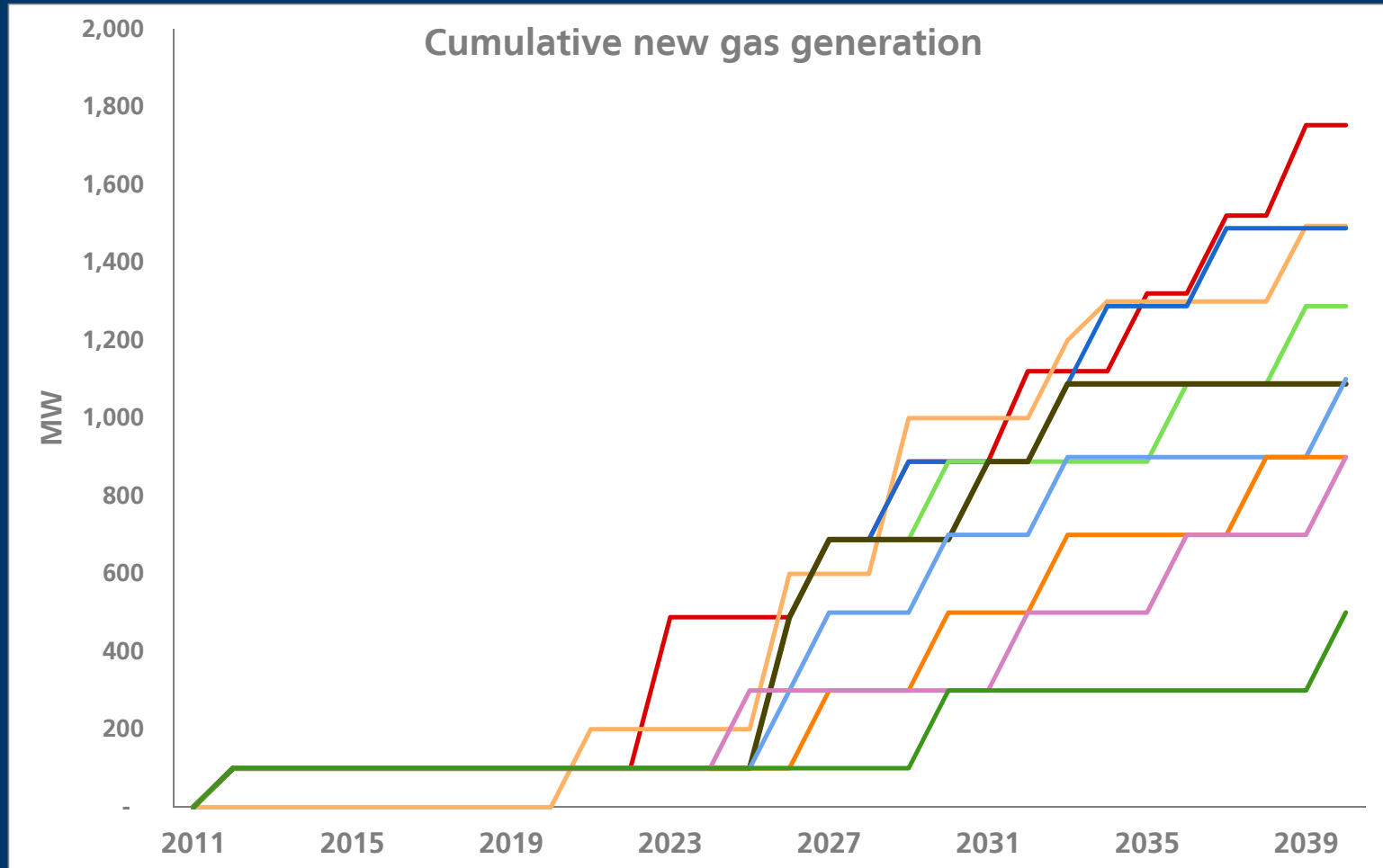
Source: MED Energy Data File 2011; MED Energy Outlook 2011

# Energy Outlook gas consumption scenarios range from 118 PJ to 180 PJ in 2040



Source: MED Energy Data File 2011; MED Energy Outlook 2011

# On all scenarios, NZ will see more gas-fired generation



Source: MED Energy Outlook 2011



# What will shape NZ's gas future?

- Big gas or little gas?
- Conventional and unconventional?
- South Island and North Island?
- Domestic or international?
- Government's desirable long-term future:
  - 'Significant discoveries of oil and gas have boosted NZ's foreign earnings and domestic gas supplies.'



# Key issues

- Gas retail
- Infrastructure

# The Gas Story for households is losing focus

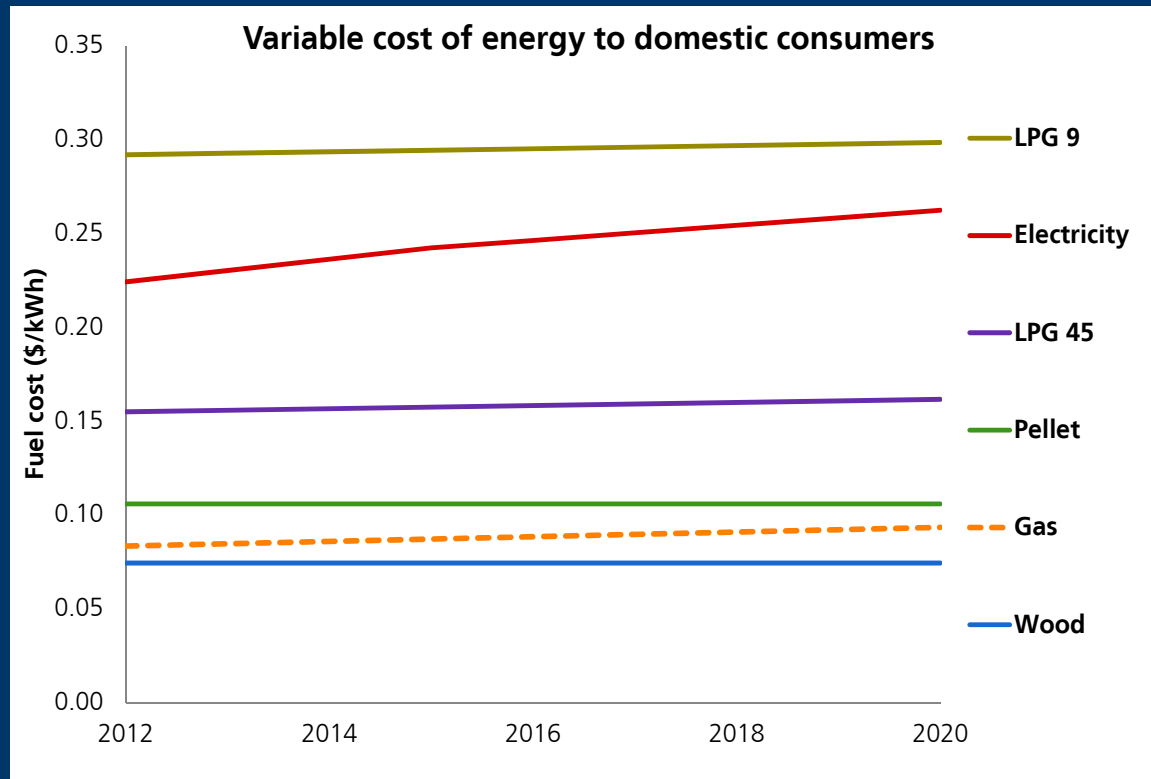
- Connections and pipes growing
- Volumes falling
- Multi-fuel retailers not marketing gas?

# EECA – Residential heater installations

Heater type	Installs	Estimated total grant
Heat pump	19,021	\$16.5 m
Wood burner	4,304	\$3.7 m
Pellet burner	491	\$0.4 m
Flued gas heater	169	\$0.1 m
<b>Total</b>	<b>23,985</b>	<b>\$20.8 m</b>

Warm Up New Zealand: Heat Smart.  
Pro-rata heater retrofits 01 Jul 2009 to 30 Jun 2011

# Gas is a good choice for householders and for New Zealand



Source: Gas Industry Co Direct Use of Gas Report/Concept Consulting

- High efficiency
- Lower carbon footprint
- 'Clean burning'
- 'Warm homes'
  
- Issues: convenience, connection costs, fixed charges

**All over the electricity side of the ship?**



# Key issues

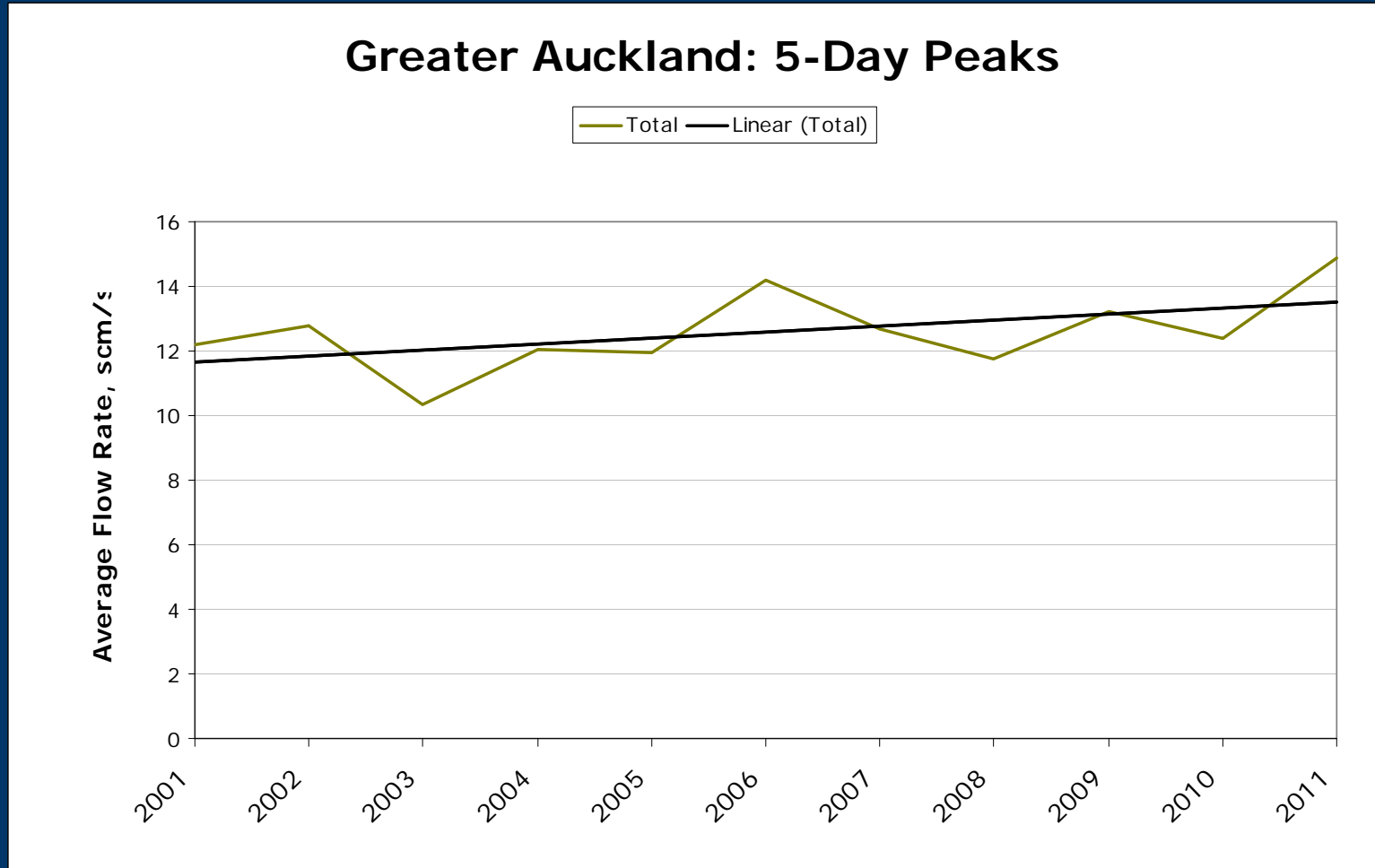
- Gas retail
- Infrastructure

# We need to deal with gas transmission congestion

- Gas supply is important for NZ/Auckland economy
- Good news – the pipes are getting full
- Bad news – the pipes are getting full
- For current gas year:
  - All firm capacity requests granted (with 3% spare)
  - No queues at gate stations
  - Power stations using less of their 60% share of firm capacity

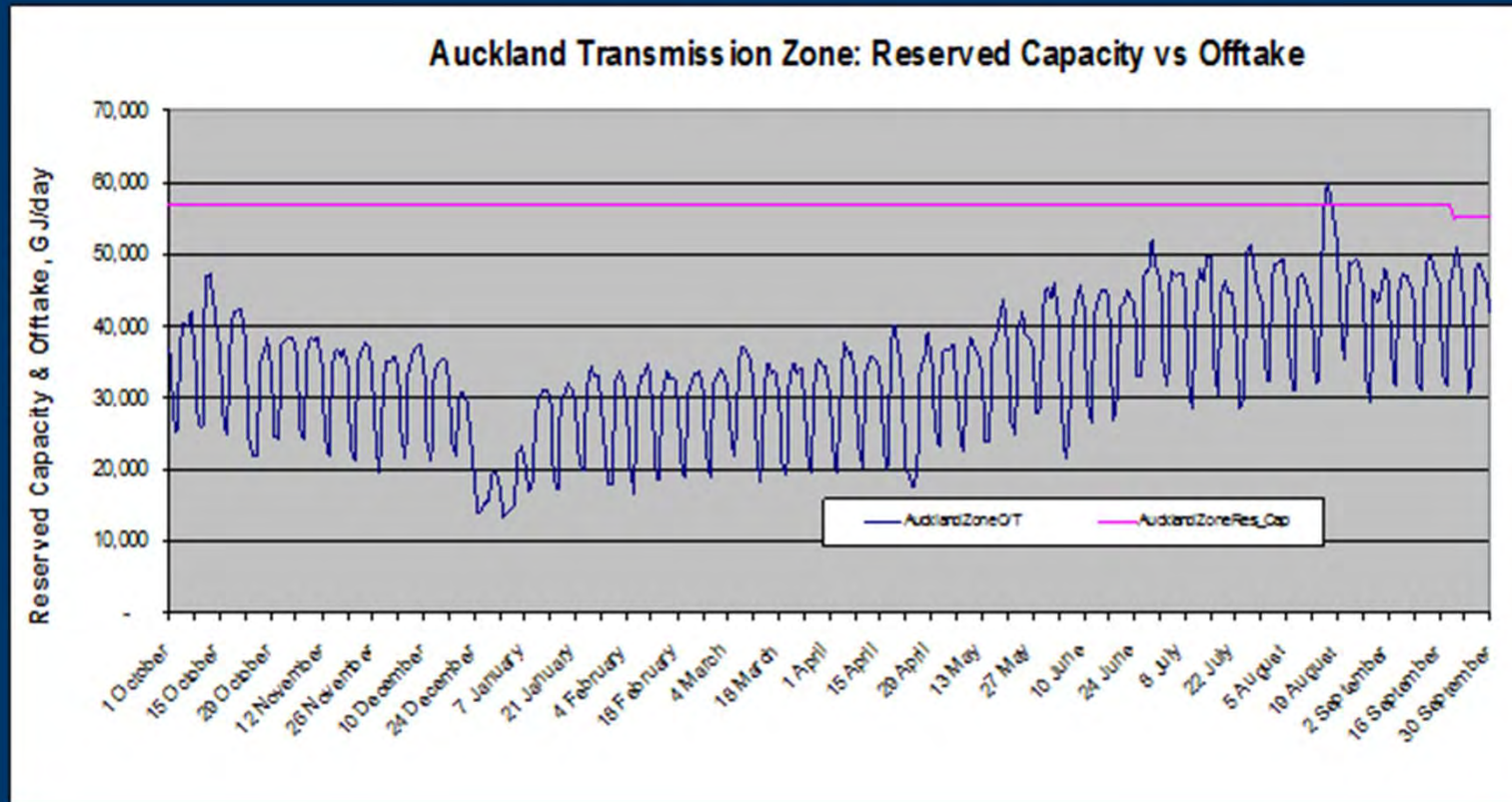


# Auckland peak demand is growing...



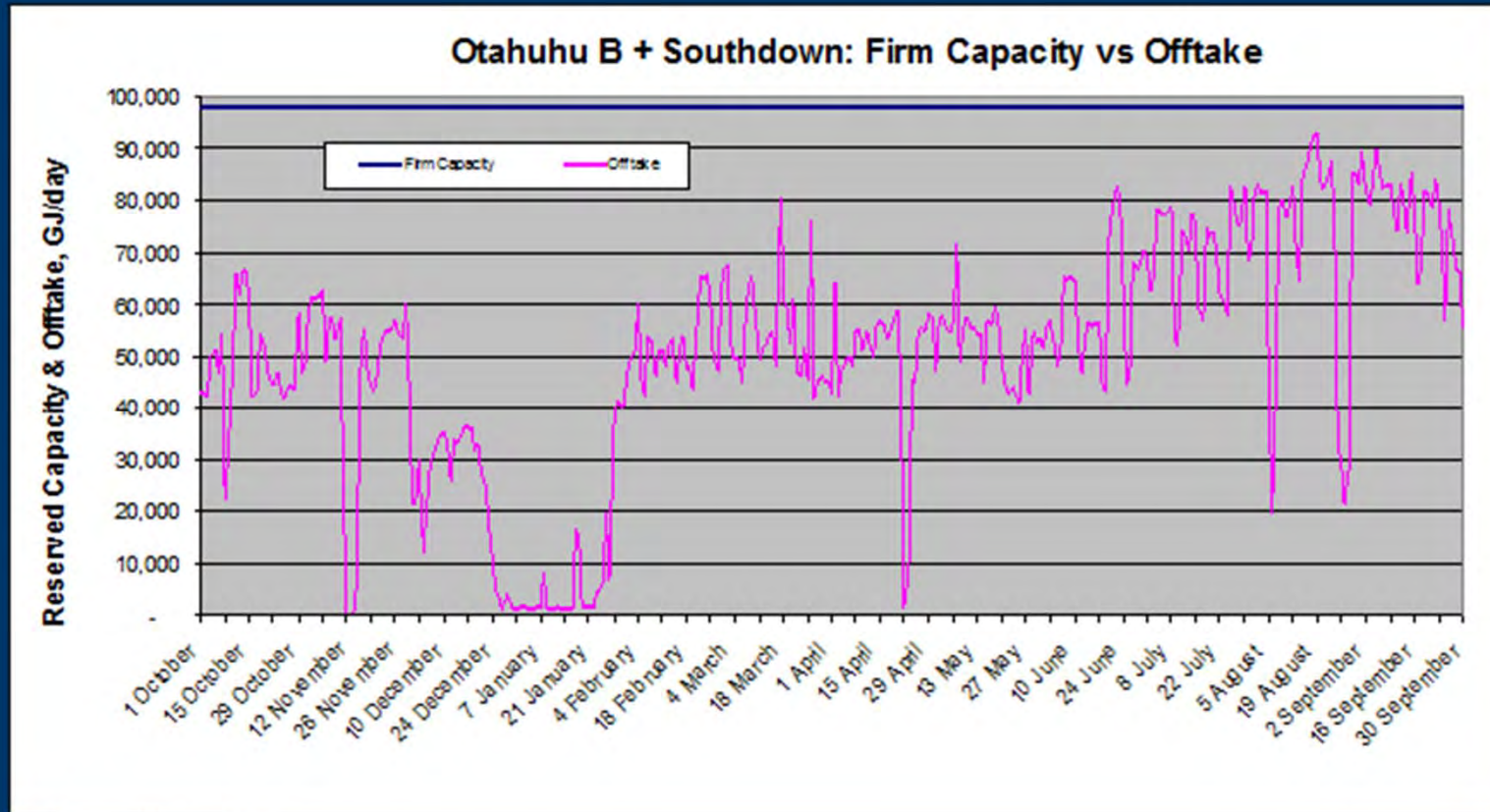
Source: Vector Limited

...but there is unused capacity at other times



Source: Vector Limited

# Auckland power stations are using less capacity



Source: Vector Limited

## Efficient use of existing pipes is key

- Existing arrangements assumed no congestion (eg 'grandfathering rights')
- Scope for more efficient use of existing pipelines
- Demand insufficient to underwrite big new capacity
- Develop incentives/signals for future
- Information key:
  - Vector North Pipeline System capacity information and determination
  - First NZ detailed gas supply/demand study - 15 year term; demand side key

# Bridge Commitments are attacking the immediate issues

- Incumbents offering up capacity
- Power station capacity being freed up
- Capacity 'dating service' coming on line



## There's much more going on...

- Reconciliation
- Switching
- Balancing
- Retail contracts
- Distribution contracts
- Private pipelines
- Wholesale market

# What needs to be done to provide for the future?

- Provide for range of (lumpy) investments/outcomes
- Quality information
- 'Fit for purpose' systems
- What gives ongoing investment confidence?

# Stitched together, the NZ Gas Story remains strong

- Gas remains an important long term contributor to New Zealand economy – through electricity generation, business, homes
- Government leading from upstream
- Participant confidence key, especially investor confidence
- Gas Industry Co strategy:  
    ‘Optimise the Contribution of Gas to NZ’



