

Customer Participation through Load Management

A Workshop for
Small to Medium Business Enterprises

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28th November 2005

In setting the scene

- ❑ Historical perspective
- ❑ Demand-side participation
- ❑ Some definitions
- ❑ Today's workshop

Electricity load management

- ❑ In the 1920's meter readers wound up the clockwork time switches
- ❑ Prior to 1967, Power Boards paid for their bulk supply solely on the basis of maximum demand. Ripple transmission and receivers were on most networks controlling hot water and night-stores
- ❑ Since 1996, the drivers have changed with the split responsibilities between the retailers and lines companies

Electricity load management

- ❑ High spot prices in the winters of 2001 and 2003 emphasised the need to get appropriate price signals to customers
- ❑ Retailers now minimise their risk with contracts with some spot exposure
- ❑ 5 minute prices help to show the trend but this is not on the daily planning horizon for most mid-range customers
- ❑ On the lines side, price responsive congestion demand remains in Christchurch and Dunedin.

Undoing months of savings

Very high spot prices due to transmission outages have highlighted once again the issue when there is a lack of certainty when high prices will occur.

One extreme event can undo months of cost savings.

Demand-Side Participation

“Competitive markets are based on the interaction of supply and demand in response to appropriate price signals. Failure to harness the ability of customers to change their demand in response to prices reduces overall market efficiency.”

Peak Load Management Alliance, February 2002

The Demand Exchange™

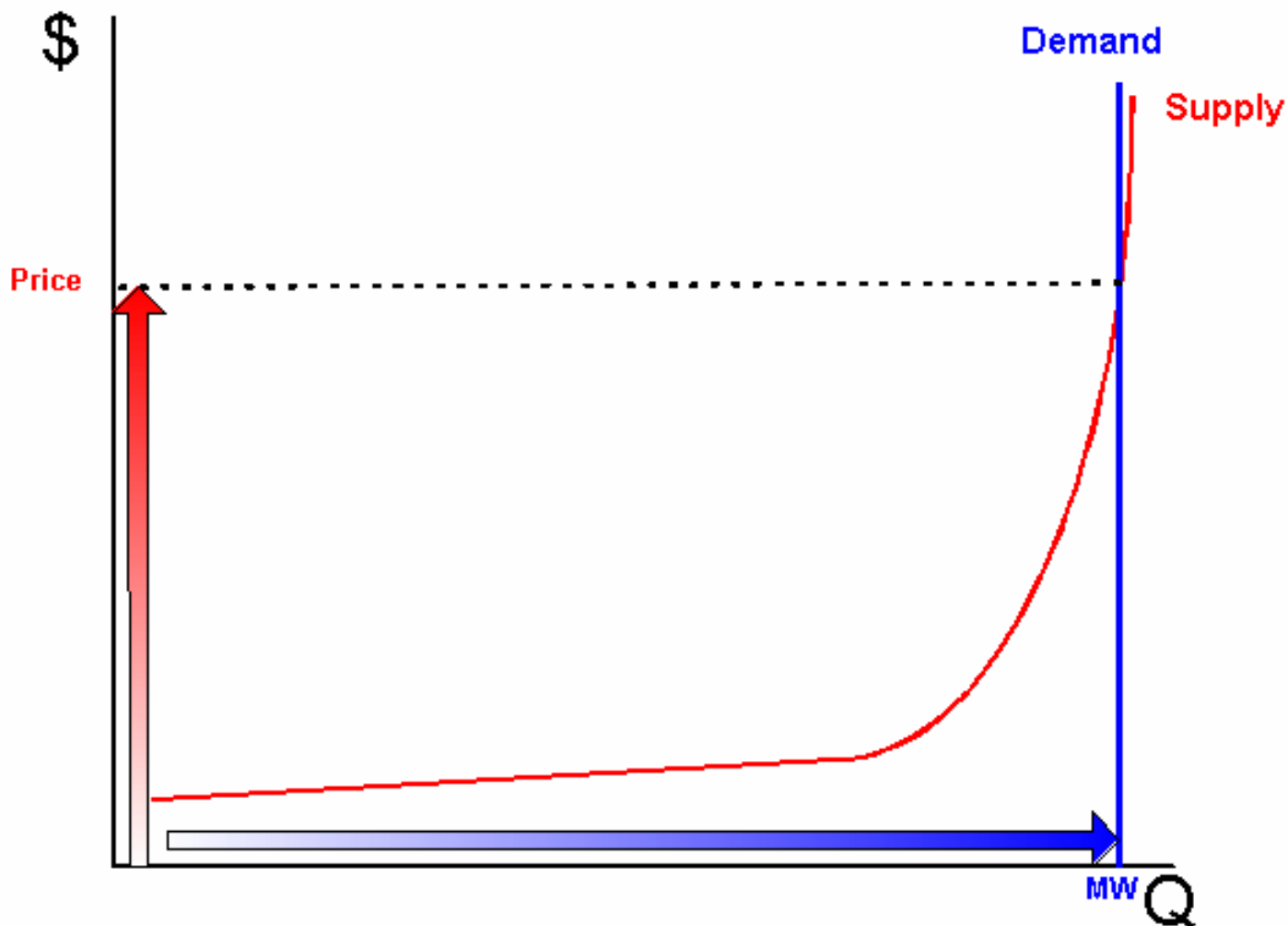


Demand
Response
can provide
the balance

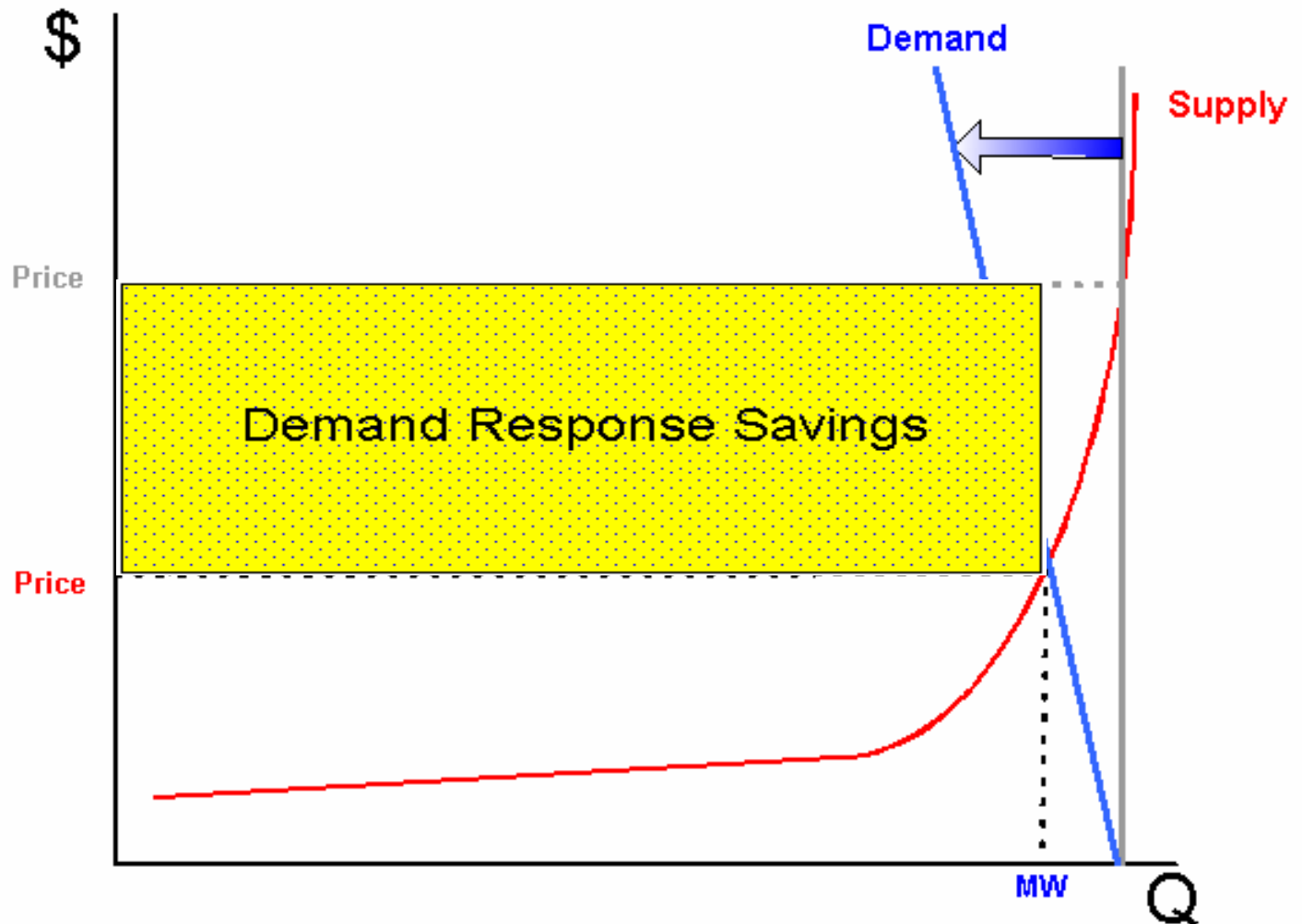
In an efficient market

**Consumer Demand Response
is the Price Safety Valve**

Supply and Demand



The Solution – Demand Response



Why is consumer participation so important?

- ❑ Reliability of the electric system
- ❑ A key driver is cost avoidance and reduction
- ❑ The market becomes more efficient
- ❑ Emissions can be lowered
- ❑ Consumers can better manage their loads
- ❑ The power of market participants can be mitigated.

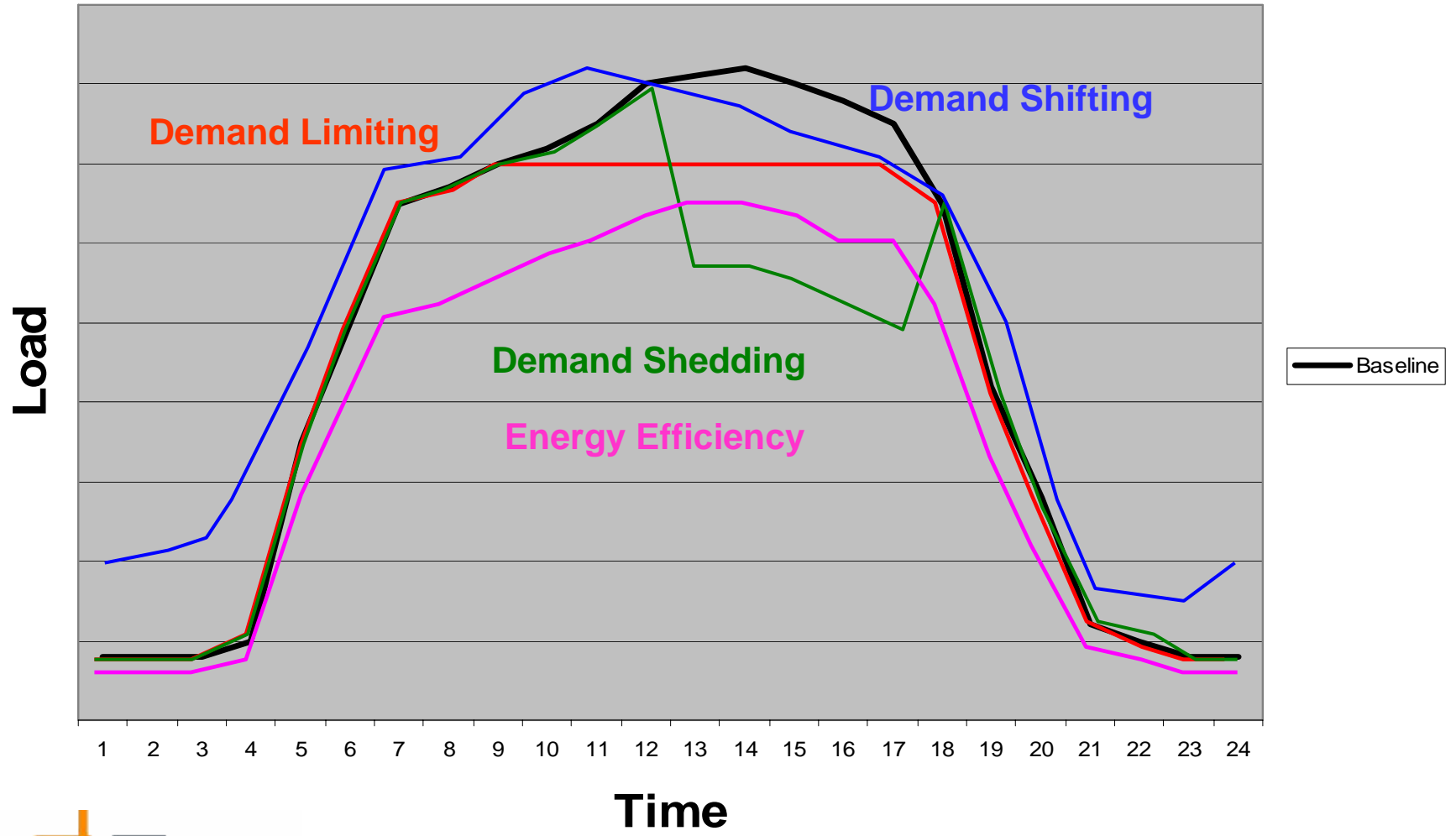
Policy is at a mid-point

- ❑ Some fear that without new sources of value or incentivesdemand-side participation programmes may never happen and just become an empty shell
- ❑ Some prefer market-based solutions with open trading platforms and protocols, clear property rights and the freedom to make investments and take risks based on some certainty with future prices

Energy Efficiency and Demand Response

- ❑ Long-term energy efficiency and short-term load responses are complementary resources
- ❑ Both are needed

Load Shapes



Today's workshop

Our objective is to facilitate an open discussion:

“To clearly understand some of the issues and barriers preventing progress with electricity load management especially in the SME sector”

The contributors

- ❑ Genesis Energy – Vince Hawksworth
- ❑ Vector – John van Brink
- ❑ The Warehouse – Wayne Inger
- ❑ Westfield – Regu Shanmuganathan

Timing

- ❑ 9.15am – Workshop opens
- ❑ 9.45am - Genesis Energy
- ❑ 10.15am - Vector
- ❑ 10.45am – Morning tea
- ❑ 11.15am - The Warehouse and Westfield
- ❑ 11.35am – Open Forum
- ❑ 12.30pm – Workshop ends