## **Gas Demand Forecasting**

## Winter 05/06: Short term forecasts for 10 highest Demand days



# **Short Term Forecast Error**



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# **High Demand Days**

- High degree of uncertainty:
  - Absolute mean error 14.7mcm
  - 82mcm range of error for the 10 days
    - -54mcm error at D-4 for 29<sup>th</sup> Dec
    - +28.2mcm at D-3 for 1st March
  - Forecast error typically biased in one direction for any given day
    - 3 out of 10 days the direction of error reversed

Note: Not a statistically significant sample.



# Conclusions

- Short term weather forecasting
  - Forecasting of weather 'systems' is typically very good
  - Uncertainty arises when forecasting the dates of change in weather 'systems' and the area(s) affected
  - Hence short term forecasts are uncertain, and highly changeable.

#### Demand Forecasting:

- High demand days have further uncertainty given the potential for significant price and demand response
- Arrival / departure of cold weather snaps difficult to predict; both occurrence and the geographic diversity
- Shoulder periods carry similar uncertainty
  - A change in cloud cover typically drives a 5 to 8°c change in temperature
  - A 1° change in CWV, typically drives a15 to 20 mcm change in demand

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