



### **Wind Operation**







lain McIntosh – Future Requirements Manager Electricity Operational Forum, August 2011



#### Wind Articles – End of April

### Wind farms paid £900,000 to switch off for one night

Daily Telegraph 1st May 2011

### Wind farms paid £900,000 to switch off

Sunday Times 1st May 2011

Wind farms paid cash to stop producing energy

BBC Online 1st May 2011

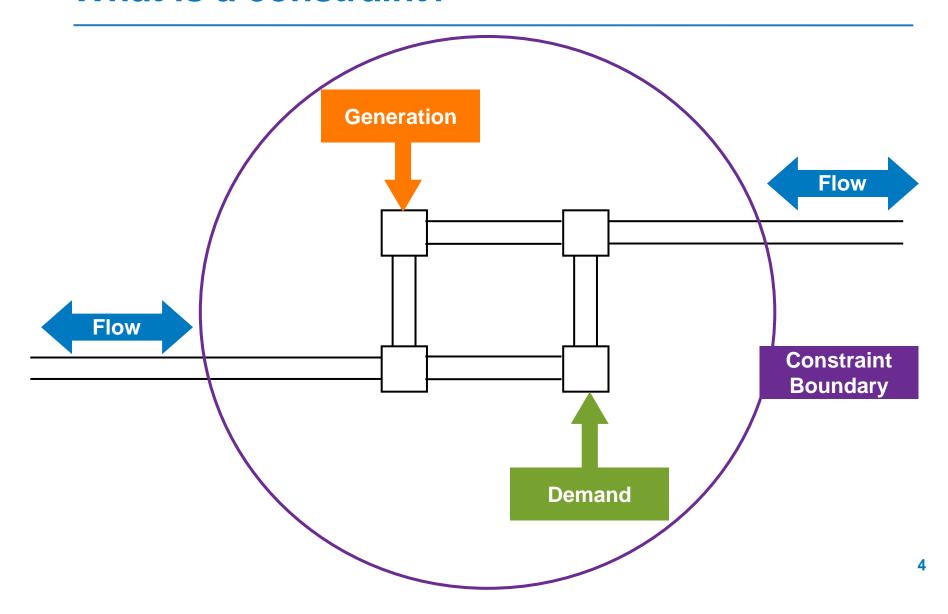


#### **Actions Taken on Wind**

- What is a constraint
- A closer look when actions on wind where taken
- High level numbers of the actions taken to date
- The cost of the actions taken on wind
- The timing of the actions taken on wind
- Details of the upcoming consultation

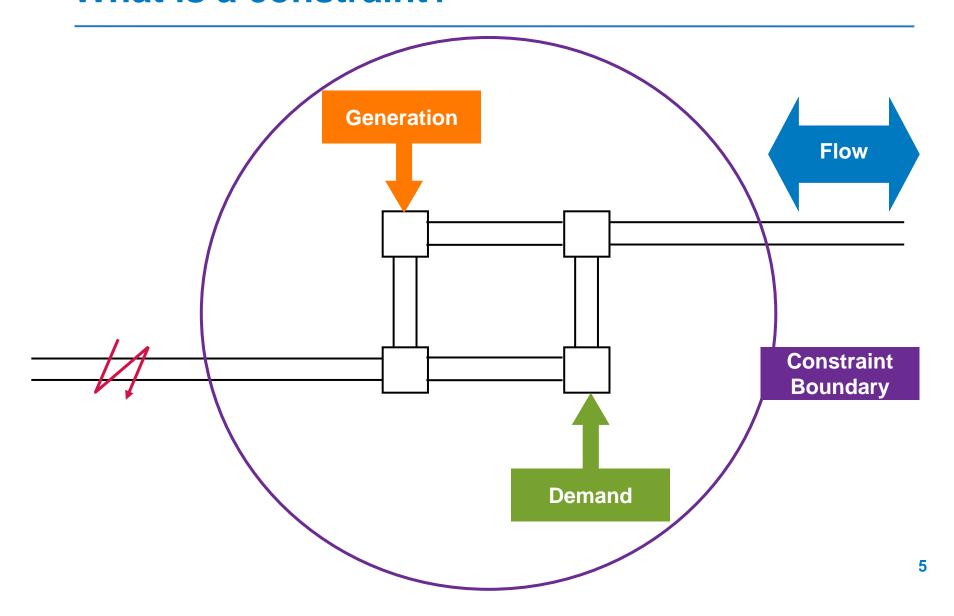


### What is a constraint?



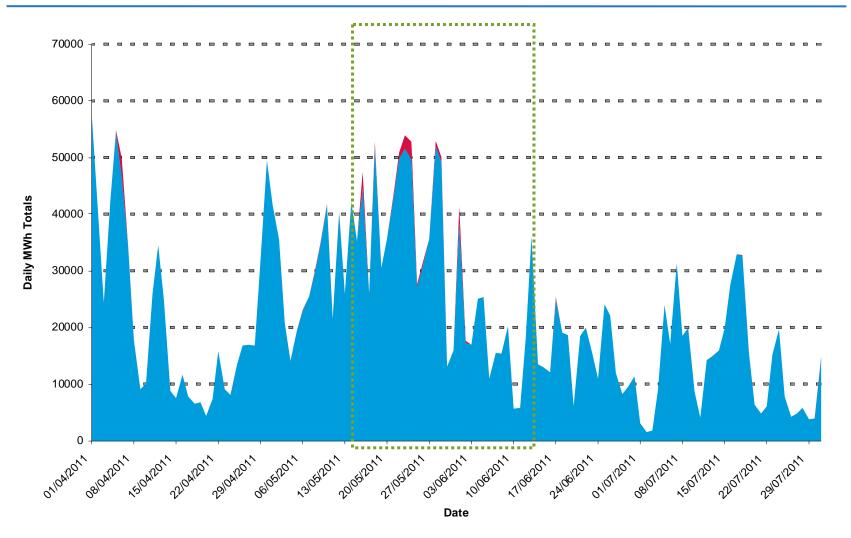


### What is a constraint?

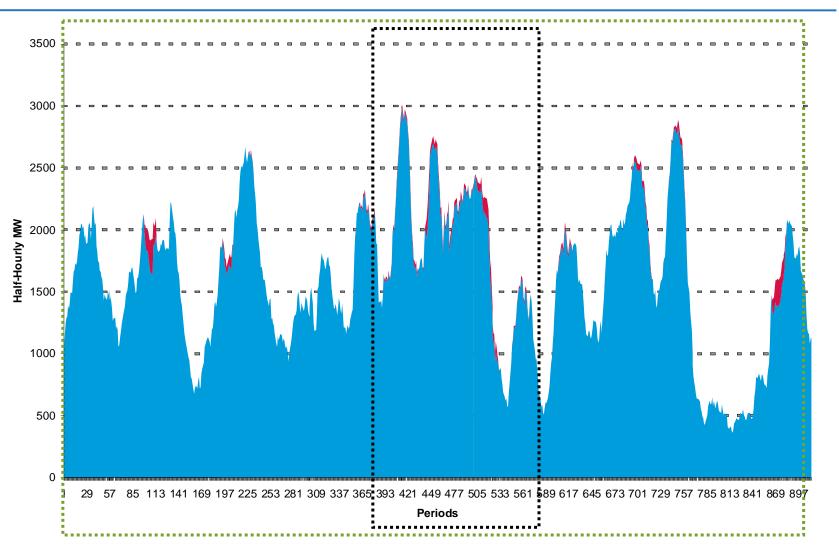




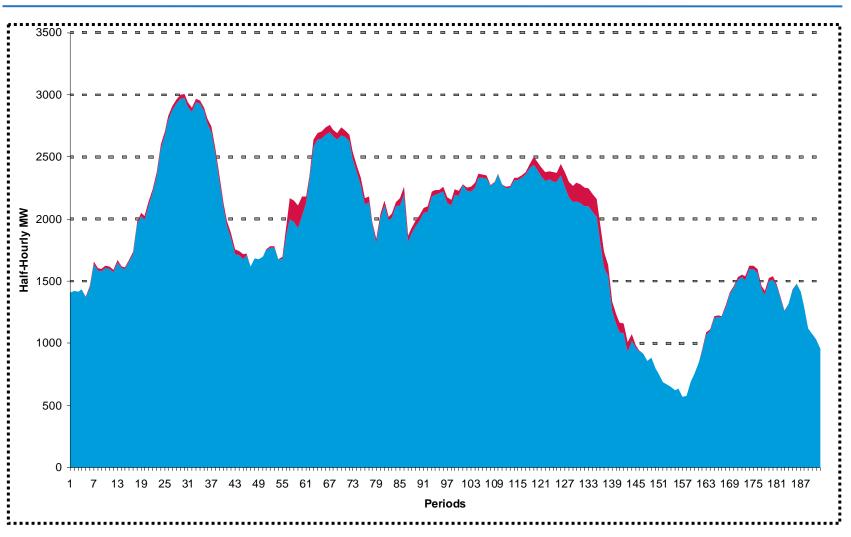




# Wind Bids taken by National Grid - national grid Zoomed



## Wind Bids taken by National Grid – national grid Zoomed in more



## Wind Data from April, May, June and July



**Total Wind Output** 

2,639 GWh

**Potential Wind Output** 

9,961 GWh

**Load Factor** 

26.5 %

For April, May, June and July on National Grid Metered Wind

Total Volume of Bids Taken

22.9 GWh

% of wind output that has been taken as bids

0.87%

Total Cost of wind actions in 2011

£4.23m

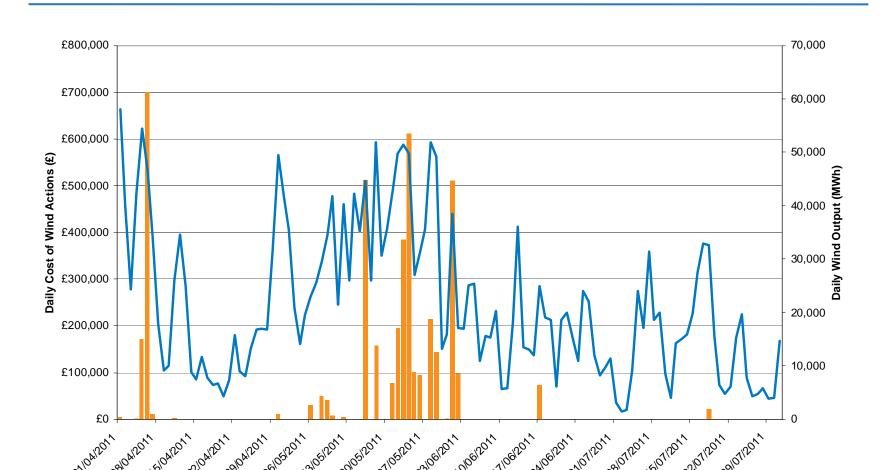


#### **Cost of Wind Constraints**

	Average Accepted Bid Price (£)	Volume of Bids Taken (MWh)	Total Cost of Bids
April	-£226.72	3,975	£901 k
May	-£174.59	1,5016	£2,622 k
June	-£179.30	3,800	£681k
July	-£150.00	145	£22 k
Total	-£184.27	22,935	£4,226 k



### **Daily Cost of Constraints**

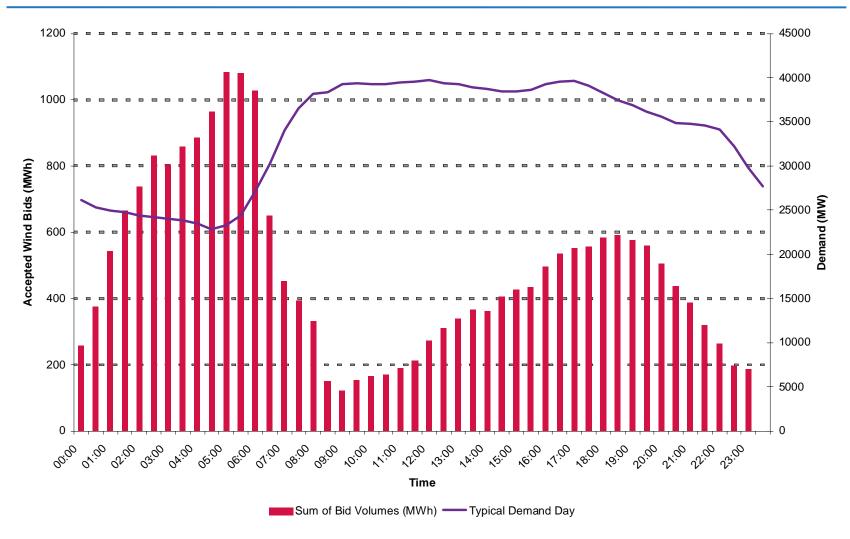


**Dates** 



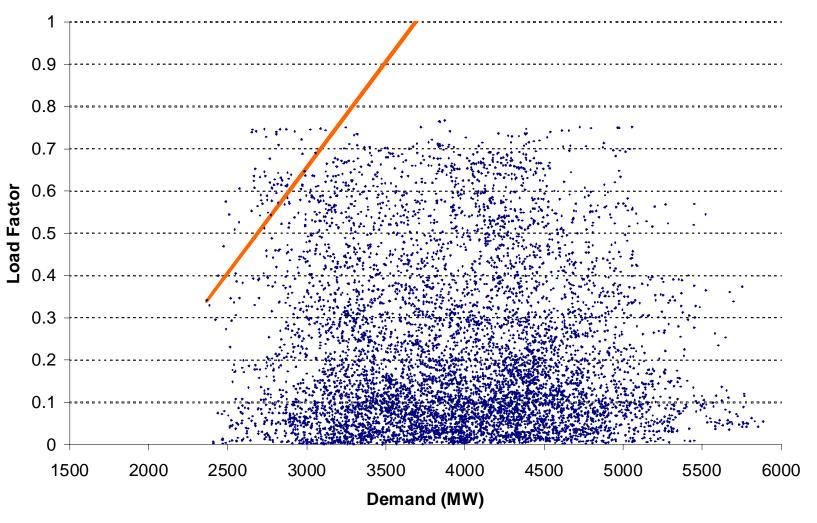
### **Timing of Bids**







### **Probability of Wind Curtailment**





### The way forward

- Issues raised as a result of 5/6<sup>th</sup> April
  - Participation of generation within/out of Balancing Mechanism
  - System Security
  - Costs to Industry
- Consultation to be published in mid September 2011 to:
  - Outline the issue
  - Seek views on potential solution
- Consultation does not seek to prescribe solution