

## Power Station Performance Case Studies

### Coryton Case Study (750MW 8x5) - 2005:

- Average 5mbar vacuum improvement  
(based on average wind speeds of 3.6m/s)
- Estimated an additional output of £100K per year.  
(based on electricity prices at the time, and running at full load for 60% of the time).
- Payback was less than 18 months.
- Noticeable reduction in maintenance issues.

Source:

*Rob Bailey – Coryton Power Station Operations Manager*

*Simon Melhuish (I.Eng., M.I.Agr.E., M.I.I.E.) – Galebreaker Operations Director*

### Kings Lynn Case Study (340MW 4x4) - 2006:

- Average 6mbar vacuum improvement.  
(based on average wind speeds of 4.3m/s)
- Noted additional benefits and savings due to less wear and tear on the ACC fan units particularly motors and gearboxes.

Source:

*Edmund Wiglusz – Kings Lynn Mechanical Performance Engineer*

*Simon Melhuish (I.Eng., M.I.Agr.E., M.I.I.E.) – Galebreaker Operations Director*

#### **Data Criteria:**

Date range:- 6-12 months

Date and time

Ambient temperature

Ambient pressure

Wind speed

Wind direction

Plant load

ACC vacuum

GTA firing temperature

GTB firing temperature