

Warwick Wind Trials Open Day December 11 2007

The Practical Realities of Microwind Power



bretrust



Programme



- Introduction
- Research
- Standards
- Break
- Customer Perspectives
- Trial data to date
- Lunch
- Sites tour
 - Daventry
 - Leamington
 - Warwick

Matthew Rhodes, Encraft

Dr Simon Watson, Loughborough University

David Sharman, BWEA + Ampair

Tour of HCG (Chris Begg)

Chris Begg, Tony White, Janet Alty, Richard Hicks, Helen Brown

David Hailes, Encraft

This is a practical, customer-led trial

- Market realities
- Community reaction
- Technical performance
- 24 sites
- 5 manufacturers
- Installed October 2005-
November 2007



A low carbon future requires informed, responsible customers.

The experimental design reflects these objectives



What we set out to do

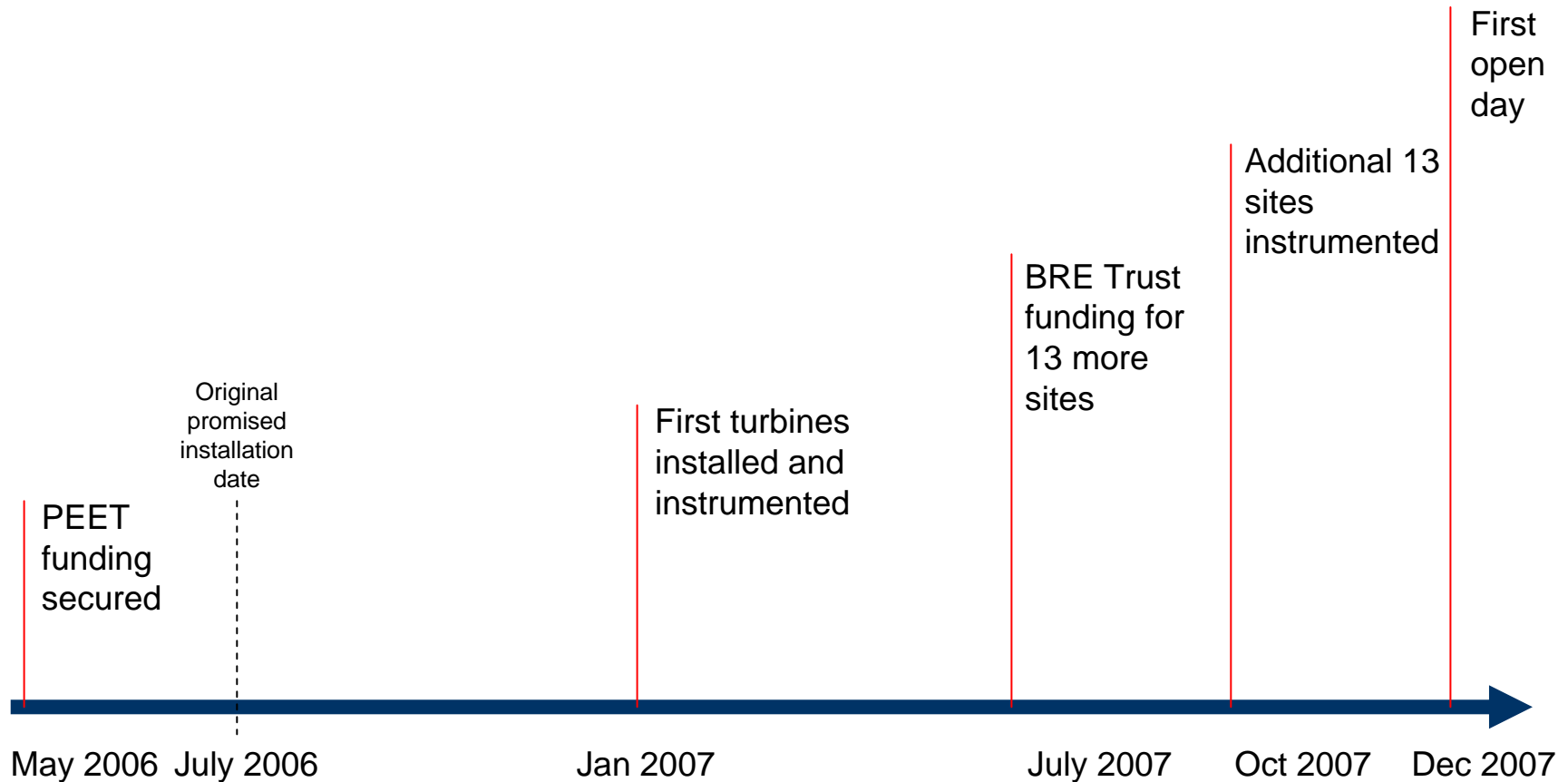
- Maximise site numbers
- Maximise site variety
- Achieve high local density
- Work through complete customer experience
- Build a complete initial picture

What we aren't trying to do

- Compare manufacturers
- Redesign turbines
- Sell or attack the technology
- Secure research funding
- Do detailed noise or turbulence assessments

The intention is to complement and inform academic and industry trials

The story of the trial



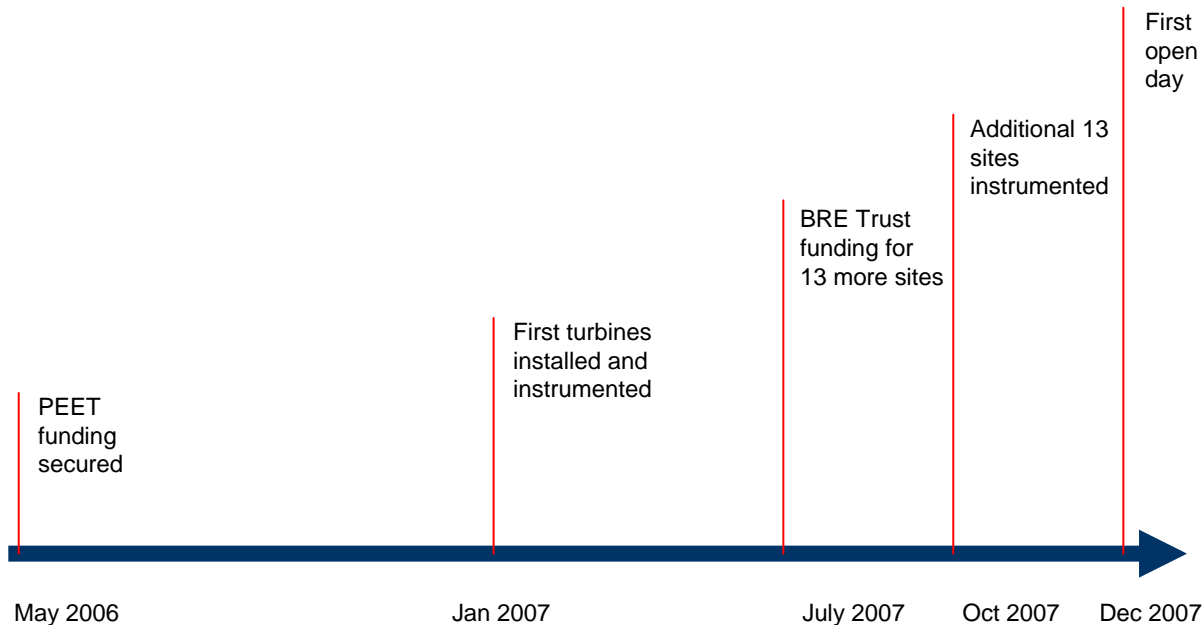
This is in the context of an evolving industry



“Microwind turbines for every home”



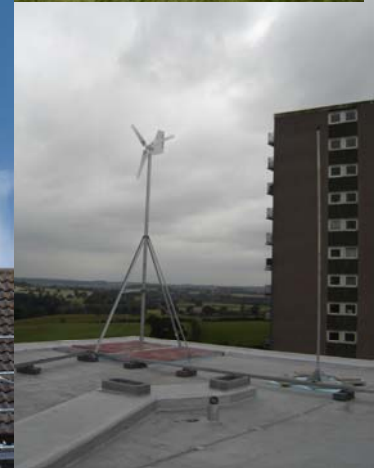
“May make a tangible contribution on suitable sites”



Current site overview



Site variety



The project has not quite proceeded to expectations



- Had everything gone according to plan...
 - 30 Windsaves + 1 Swift installed in Warwick July 2006
 - All over now
- In practice...
 - Ampair stepped in and supplied 10 – 3 on poor sites in spirit of the trial
 - 5 Windsave customers volunteered – installations dating from Oct 2005 to this summer
 - 1 Eclectic
 - 1 Swift
 - 3 Zephyr Air Dolphin
 - 4 other Ampairs (inc reference site)

We have had some reality checks

- 1 theft
- 2 noise complaints
- 0 planning failures
- 1 bat protest
- 1 damaged system
- Several replaced inverters
- 1 hijacked CCTV
- ...lots of delays



These should be put in context

~ 100 000+ operating hours
20% large wind farm noise complaints

~ 24 million homes
Limited media perspective
Limited customer understanding

What you will hear today

- Work in progress
 - Industry
 - Trial
- Lessons to learn
 - Industry
 - Government
 - Customers
 - Researchers
- Results to put in context
- Opportunities to do more work in a more informed way



This is the first of a series of open days



- December 18 2007
- March 11 2008
- September 9 2008
- January 13 2009

www.warwickwindtrials.org.uk



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