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Dinosaur Isle

Energy, Water and waste efficiency  
SHOWCASE



The building opened in August 2001



Energy, electricity, gas and water,

- On a scale of **A – G** the energy rating of this brand new building was **F!**.
- We have no gas despite the gas main being in the road less than 20 meters away.
- We had a massive air conditioning and heating unit in a dedicated plant room with banks of direct heaters.
- Our water meter remained lost for a year as I refused to pay an estimated bill.

Operation

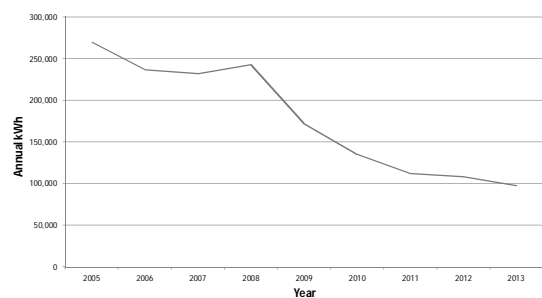
- In 2008 my budget for electricity was almost £30K and after wages and business rates it was our 3<sup>rd</sup> highest cost.
- That year we were offered a voltage optimisation unit the cost was £5K however if it failed to save us the equivalent saving or more there would be no charge.

Voltage optimisation unit installed



- As you can see from the following graph it was the prelude to a massive drop in our consumption.

Dinosaur Isle energy consumption



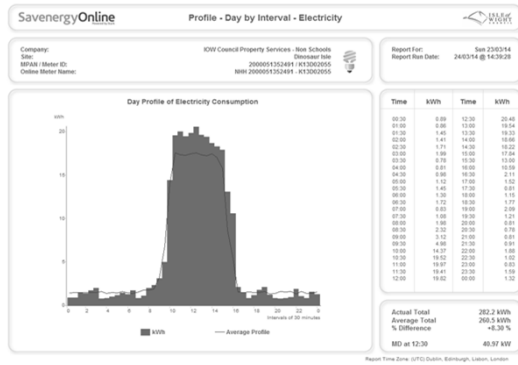
### Correlation does not imply causation.

- What we did was begin to target on our energy use.
- The duty manager was responsible to see everything was turned off at night.
- The staff and our regular contract cleaner bought into the process.
- As money became available we installed pir's etc.
- We installed battery powered spray taps.
- We regularly adjusted our time controls.
- And we make many small but iterative changes

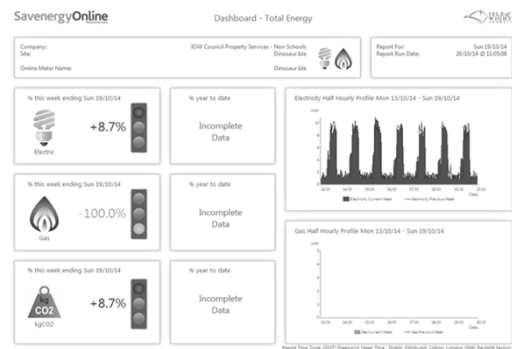
### The savings today

- I estimate with the increase in electricity costs since 2008 our annual bill would have risen to £35,750
- In 2014 our electricity bill was just £10,449
- That is a saving of £25,301 or a full time post.
- We had no over riding strategy, just an ambition to reduce our running costs, spending money this year to reduce our costs next year.

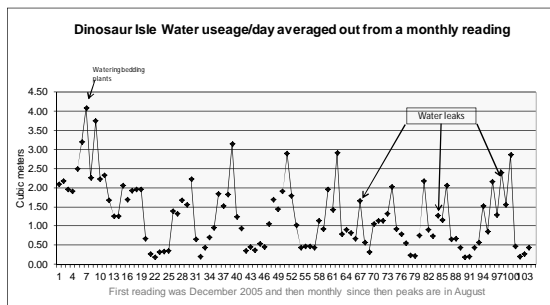
### We have recently paid to install a Smart meter



### The week our cleaner went on holiday



### Water has had it ups and downs!



### Not forgetting

- Rubbish separation and recycling
  - Card board
  - White Paper
  - Shredded paper
  - Compost
- In 2012 we removed the litter bin from our car park – this has been a fantastic success we saved over £700 on our refuse disposal cost and had far less litter blowing around!

### Still more to do

- Energy efficient lights.
- Greater use of air source heat pumps.
- Improve air tightness of building.
- Solar thermal hot water?
- Photo voltaic panels on roof
- Water and chemical free urinals -

Is our biggest impact the transport of our visitors?



- 350 space car park
- Just 4 cycle hoops
- 87% visitors arrive by car

*Thank you, and any questions?*

