

# SPLASH PALACE



**Conversion from Coal to Wood Fuel**

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- Built 1996



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## Path from Coal to Wood Fuel

- 2008: Decision to investigate replacement options for Boilers



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- 2008: Decision to investigate replacement options for Boilers
- April 2011: Feasibility Study concluded the 'best' option was two new coal boilers



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**Stable Woodchip Supply?**

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## **Stable Woodchip Supply?**

200,000+ tonnes exported from  
Bluff in 2013

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## Path from Coal to Wood Fuel

- 2008: Decision to investigate replacement options for Boilers
- April 2011: Feasibility Study concluded the 'best' option was two new coal boilers
- November 2011: Council approved installation of woodchip Boiler and diesel backup boiler

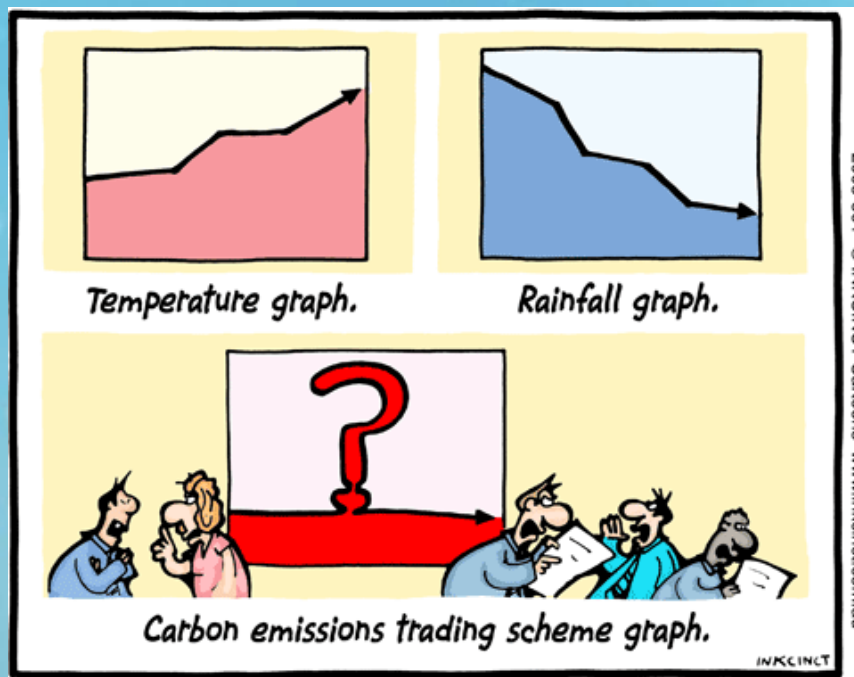


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## What the...??

### Impending cost of the Emissions Trading Scheme



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**What the...??**

The Green Look



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What the...??





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**Cost?**

Cost vs Benefit

Woodchip vs Coal



\$17,500 - \$20,000 p.a.



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## Cost?

### Cost vs Benefit



Woodchip vs Coal



\$17,500 - \$20,000 p.a.

Woodchip vs Coal



Reduced health impact  
on local residents

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## Cost?

### Cost vs Benefit



Woodchip vs Coal



\$17,500 - \$20,000 p.a.

Woodchip vs Coal



Reduced health impact on local residents

Woodship vs Coal



Demonstrable leadership opportunity

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Approval to install Woodchip Burner  
November 2011

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## The Details

- Replace two 750kW coal fired Taylor 70 series vertical boilers with a single 840kW Binder woodchip boiler and one backup 600kW diesel boiler
  - Modify existing coal/lignite bunker to take woodchip
  - Modify existing boiler house to accommodate Woodchip boiler and backup diesel boiler
  - Setup ancillary control systems
- 
- A large, vibrant orange fish is swimming from the right side towards the left in the middle-right portion of the slide. It is the largest fish on the page. Other smaller fish are visible in the background.

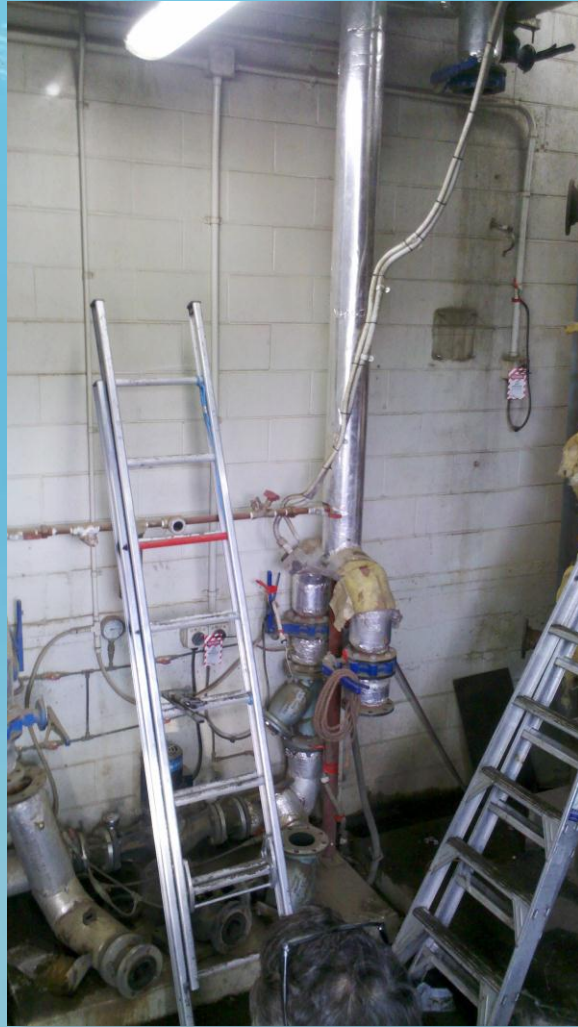
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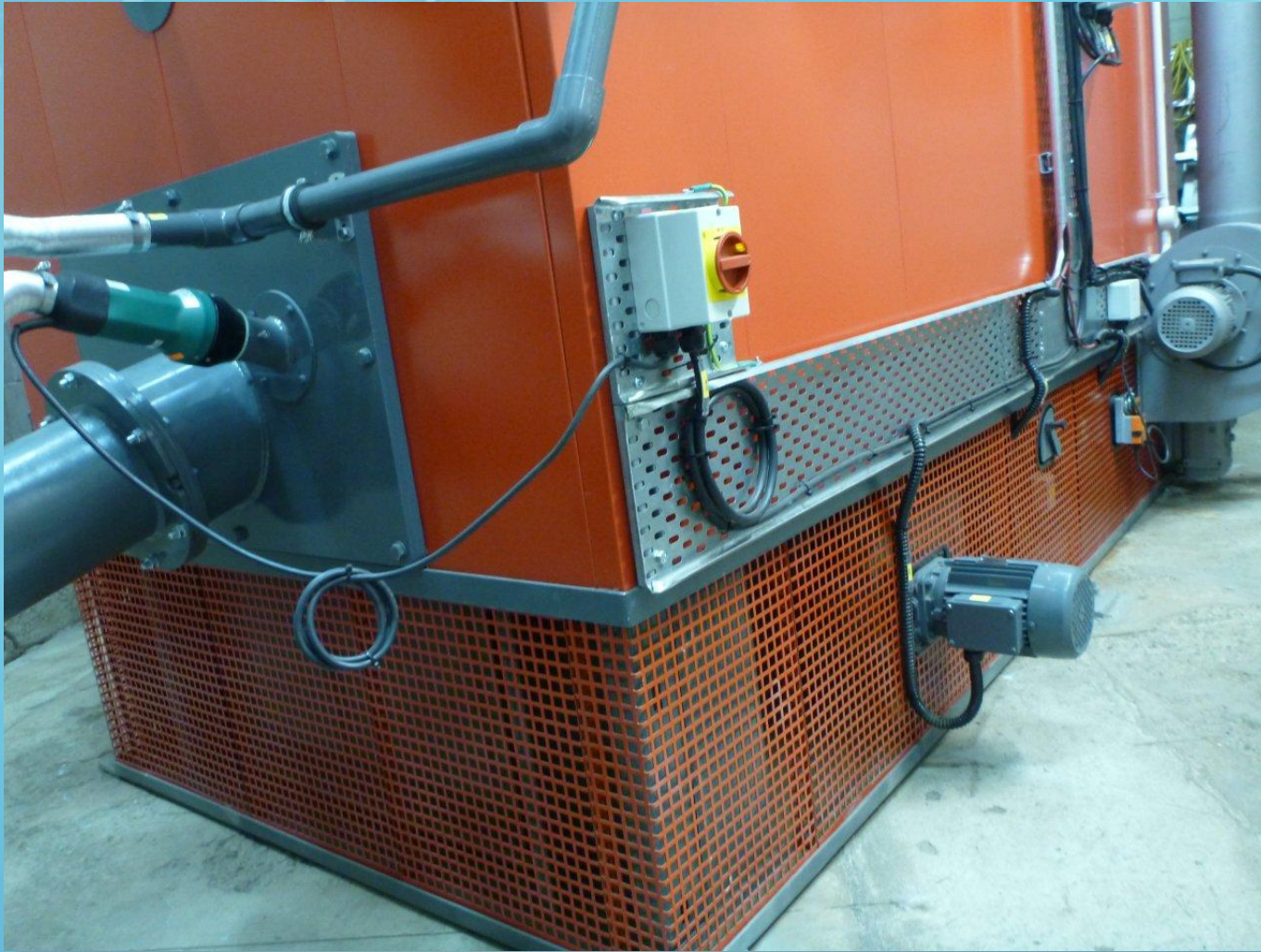
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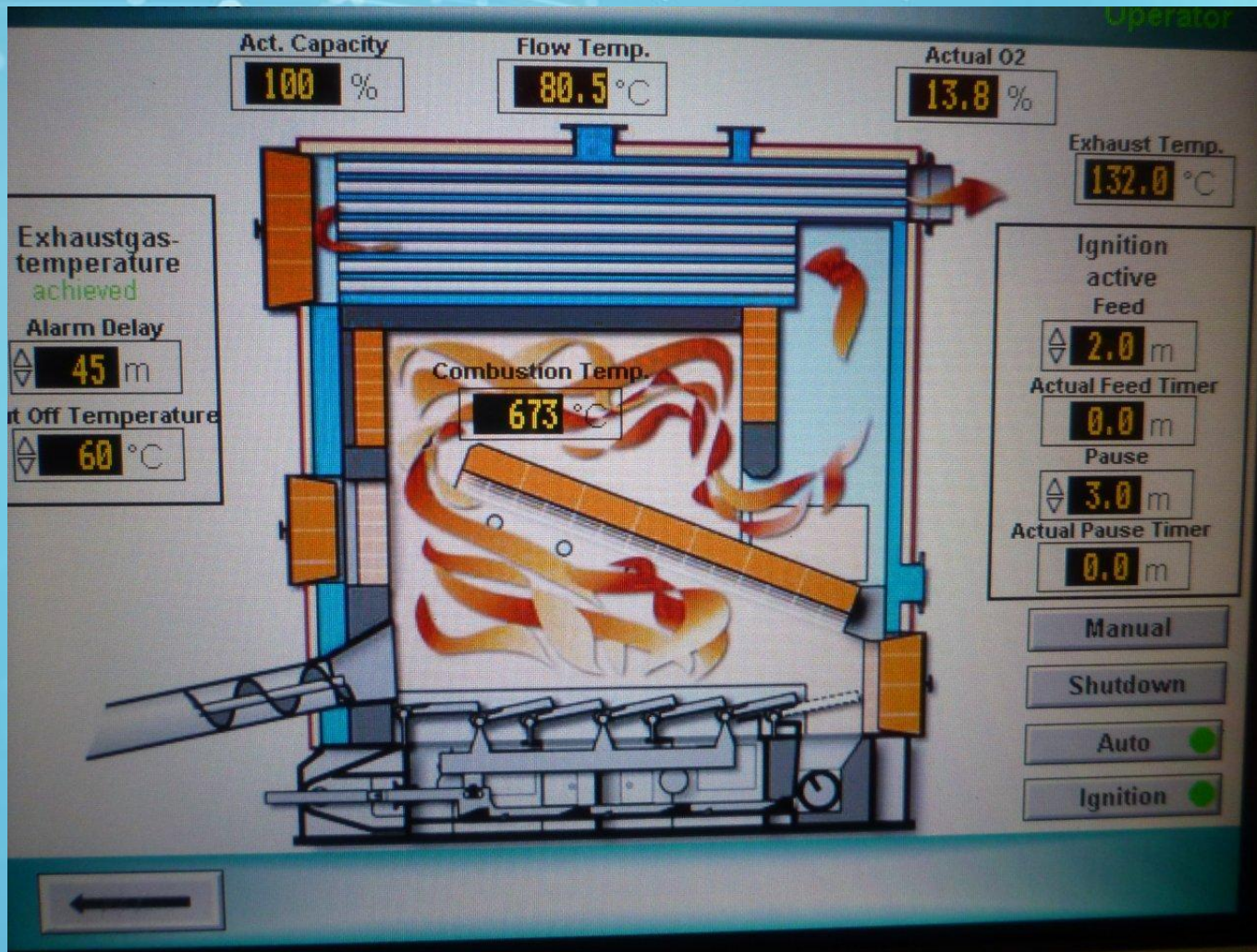
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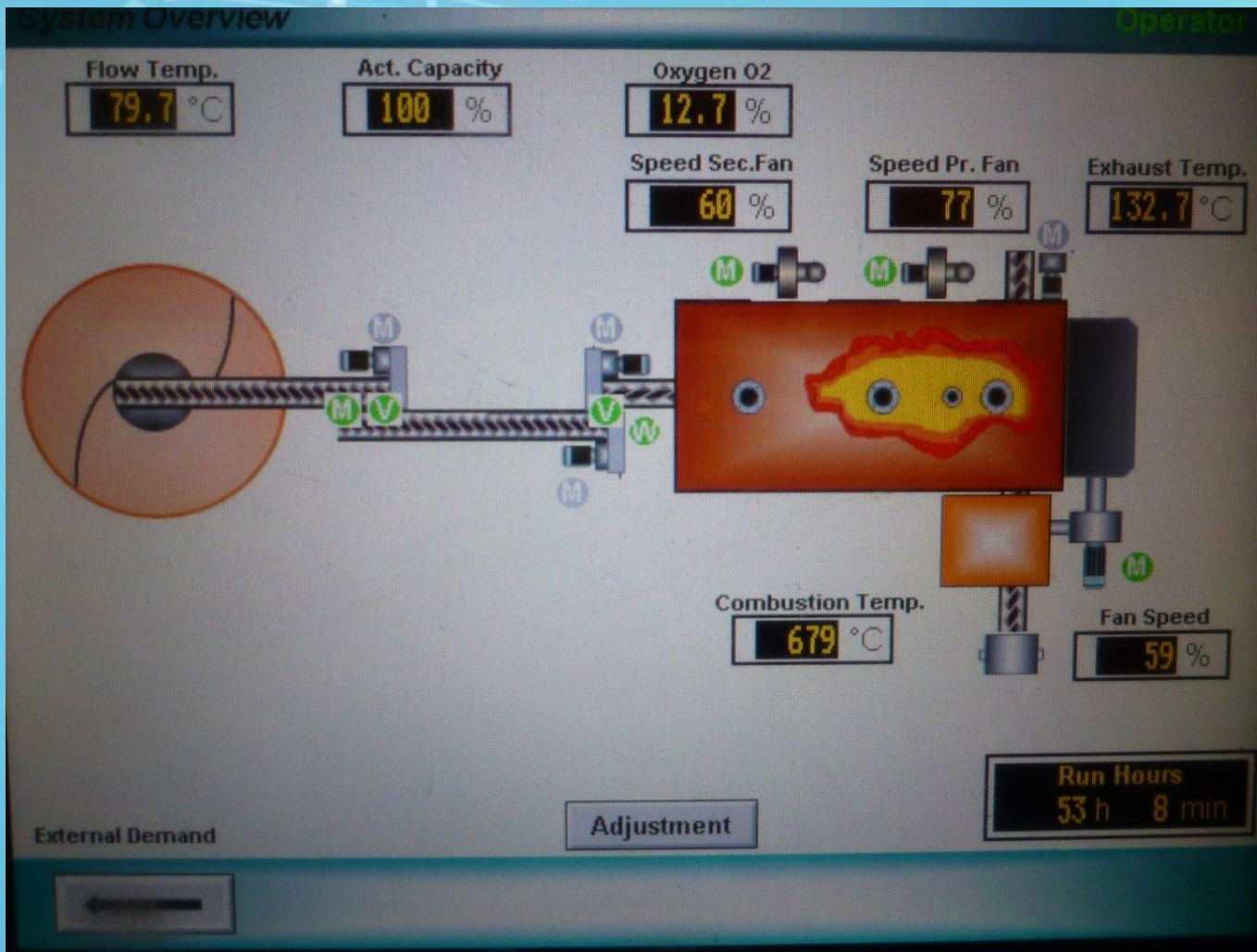
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## Cost vs Benefit

- Total installation cost \$650,000



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## Cost vs Benefit

- Renewable source of fuel



GREEN living



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## Cost vs Benefit

- Cleaner & Safer





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## Cost vs Benefit

- Significantly more efficient
- Old Boilers (average) 69%
  - New Boiler 90-95%



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## Cost vs Benefit

Which means...

- Reduced Carbon Emissions leaning toward Carbon neutrality
- Reduced maintenance



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## Cost vs Benefit

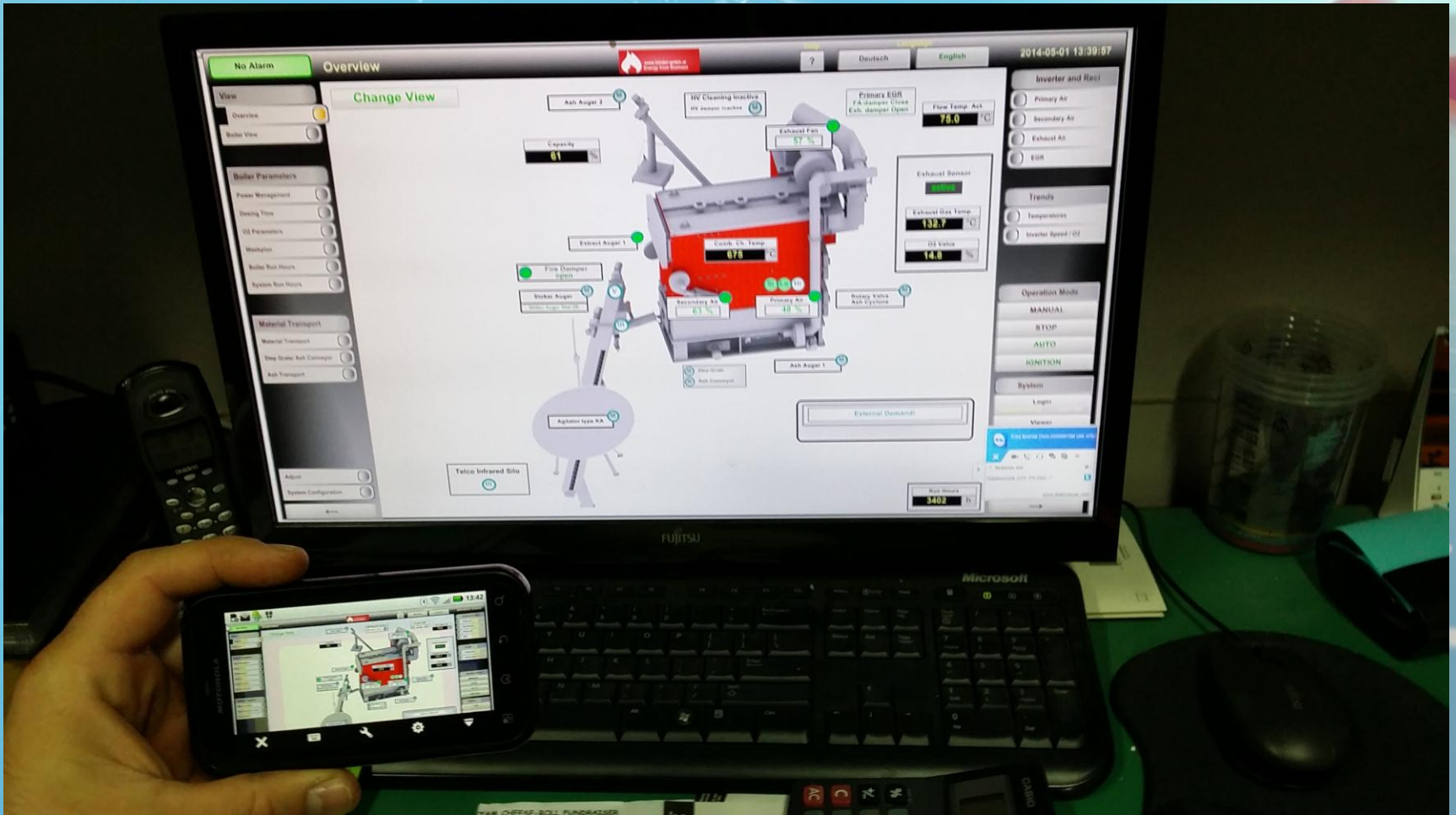
- Safer working environment
  - Reduced risk to staff
  - Reduced man hours
    - Reduced ash
- Improved offsite signalling
- Improved offsite control



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## Cost vs Benefit



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Outcomes

**EXPECTATIONS  
EXCEEDED**



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## Outcomes

What about the actual operational cost?

Remember:

- Woodchip was going to be \$20k+ more p.a. than coal



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## Outcomes

What about the actual operational cost?

Remember:

- Woodchip was going to be \$20k+ more p.a. than coal

However

- Significantly reduced man hours 80%



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## Outcomes

What about the actual operational cost?

Remember:

- Woodchip was going to be \$20k+ more p.a. than coal

However

- Significantly reduced man hours (80%)
- No cost for toxic coal waste disposal





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## Outcomes

What about the actual operational cost?

Remember:

- Woodchip was going to be \$20k+ more p.a. than coal

However

- Significantly reduced man hours (80%)
- No cost for toxic coal waste disposal
- Reduced maintenance



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## Outcomes



Overall positive operational and financial  
impact

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## Outcomes



Overall positive operational and financial  
impact

THANK YOU!