

Energy
Efficiency
Opportunities
Workshop
May 2009



Company Overview

- IPL is a Global Fertiliser and Explosive Manufacturer
- Approximately 4500 employees
- 20 manufacturing sites worldwide
- Australian energy use 23.8PJ in 07-08 (inc feedstock)
- 97% of energy use from 2 Sites: Gibson Island, Phosphate Hill
- Gibson Island Works manufactures Fertilisers.
- The major energy user on site is the Ammonia Plant

Data Analysis and Opportunity Identification

- Background Paper. The site was divided into 3 plants/areas and a background paper prepared for each plant.
- The background paper was prepared using information from the Production Reporting System.
- Energy flows on site were well understood already
- Focused on the 10 biggest energy consumers and followed plant PFD to generate ideas
- 130 Ideas in total at Gibson Island – a challenging number

Evaluating Opportunities

- The 4 year payback rule was used as a screening tool to determine if an idea was feasible
- Examples of Opportunities include:
 - Compressor Suction – New cold Insulation. Saving 2600 GJ and making 200t/year extra Product. Whole of business evaluation.
 - Steam system – Turbine pumps vs motors. Running optimal configuration.
 - Steam System – Optimising steam integration between manufacturing plants.

Conclusions

- Data analysis focused around the ideas generated.
- Calculating benefit and using 4 year payback as a quick tool to determine if an idea was feasible.
- Important to consider the whole of business evaluation
- Next steps
 - Phosphate Hill Site assessment taking place 2009
 - Continuing evaluation of opportunities identified