

SIMPLY HEAT TO
ELECTRICITY



Capricorn Power

We solve local waste and emission problems by generating sustainable discount electricity and hot water

Product Brochure

TAKE CONTROL OF YOUR ENERGY FUTURE CLEAN, SIMPLE, EFFICIENT

Introducing the Barton heat to electricity engine – clean, reliable and without compromise.

POWERED BY CAPRICORN

We turn heat into energy at leading efficiency for reliable, low-cost electricity and hot water, reduced waste and emissions, and a sustainable global future.

Capricorn Power is an innovative Australian company backed by industry veterans with decades of power industry experience. We have developed a leading technology delivering secure and dependable electricity to complement existing energy supply sources.

CUSTOMER PROBLEM

Since Dec 2007, retail gas and electricity prices have increased by 86% and 106% respectively, against 24% for the CPI. Sustainability issues and reliable, cost effective renewable energy are front of mind for government and business today and will remain so whilst energy costs escalate and global warming concerns increase.

Customers wish to dispose of local green waste

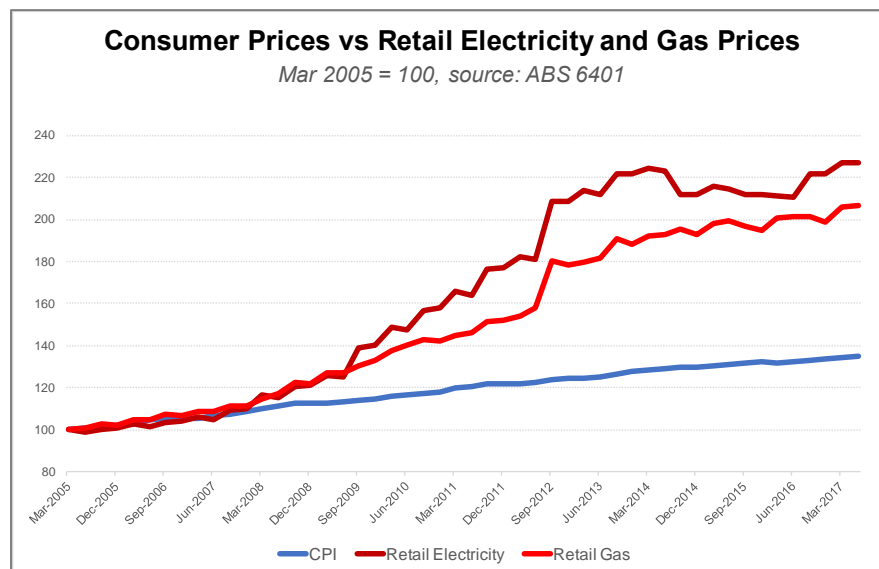
sustainably, or turn waste heat into electricity to improve energy productivity and reduce emissions, but their options to do so are generally limited to Organic Rankine Cycle (ORC) engines with high capex, poor efficiency and use of problematic working fluids.

SOLUTION

The Barton engine turns customers' waste, or waste heat, into low cost electricity and hot water, and reduces emissions. Our process innovation uses standard power equipment components, without problematic working fluids. It is closed-loop, sustainable, renewable, zero-emission electricity.

APPLICATIONS

Applications include primary energy sources from renewables (biomass, geothermal, solar thermal), methane flare gas (waste water treatment, rubbish tips), waste heat recovery from industrial processes, and conventional (oil, gas).



Capricorn Power has developed a highly efficient sub-utility scale thermal energy to electricity and hot water system.

PRODUCT FEATURES

NO CAPITAL OUTLAY - PLUG AND PLAY

You just get discount electricity and hot water – no risk, no hassle. The experienced, committed team designs, installs and integrates a ‘turn-key’ solution into your existing waste heat source.

RELIABILITY

The Barton engine uses mature, standard power equipment proven over decades – our innovative process uses no new technology or components.

SAY GOODBYE TO PRICE RISES

We provide fixed price discount electricity, so you enjoy freedom from fuel price volatility.

MORE ENERGY

The Barton engine utilizes a new manifestation of the Brayton cycle with significantly better efficiency than Rankine-cycle systems over the temperature range 250-600°C.

MORE CONTROL

The Barton engine is fully automated. The sophisticated SCADA remote control system offers in-depth monitoring, reporting, and management capabilities.

LESS COST

We can use low cost, standard materials because our process uses modest pressures

(<20 bar) and temperatures, and there are no boilers, condensers or pumps.

LOCAL SERVICE AND SUPPORT

Austeng will manufacture, install and support the end-to-end system and provide full after-sales support including ongoing maintenance and operations.

INCOMBUSTIBLE, NON-TOXIC WORKING FLUID

The Barton engine uses nitrogen as the working fluid – no Pentane, Butane or refrigerant chemicals associated with ORC engines.

SUSTAINABLE

There is little noise, and no waste or pollution. The closed loop process is sustainable, renewable and zero emission. As clean air and climate change mandates affect conventional energy generation in the future, the Barton engine will remain environmentally friendly.

WARRANTY

All we do is dispose of waste sustainably and provide reliable, discount electricity and hot water. You don't pay for anything that you don't receive.





CAPRICORN'S GLOBAL
TECHNOLOGY IS MANUFACTURED,
INSTALLED AND SUPPORTED LOCALLY

Capricorn Power's partner, Austeng, is a Geelong-based full-service, multi-award winning engineering firm. In 2015 with Cytromatix and Deakin University they won the Victorian Engineering Excellence Award for innovation, and their outstanding reputation and track record recognised with induction into the Victorian Manufacturing Hall of Fame.

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