

Cogent Energy

GBCA Presentation

Sydney, 29th September 09

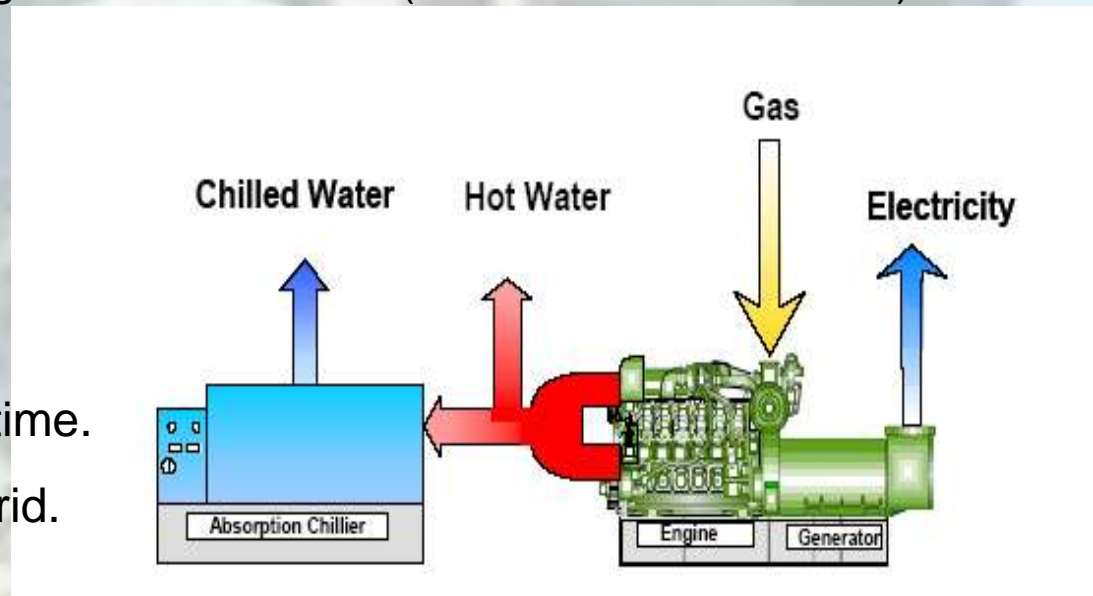
What is Cogeneration & Advantages?

What is Cogeneration?

- Simultaneous production & use of electricity & heat.
- Sometimes referred to as Tri-generation or CHP (Combined Heat Power).

Advantages

- Proven, low risk & short lead time.
- 50% less CO2 emissions to grid.
- Up to 80% energy efficient.
- Can uplift Green Star & NABERS ratings by 1-2 stars.
- Displace back-up diesels
- Usually cost-effective.



- Building Owners – Mirvac & Eureka
- Installed during building refurbishment in late 2008
- 40k sqm commercial, 10k sqm retail
- Plant services base building and tenants
- Tenants – Federal ATG Dept, NSW RTA, AGL
- Base building & tenant energy rates competitive to grid
- Plant Size
 - 2.4 MW electrical
 - 1.5 MW absorption chilling
 - 70% efficiency
- 5 Star Green Star, 5 Star NABERS energy



Do it yourself

- Out sourced design & installation
- Cost of about \$2.0-\$2.5m per 1 MW installation (including absorption chillers)
- Ongoing operations & maintenance at about \$120k pa per 1MW
- Accept risk with future gas prices
- ROI normally determines **go** or **no-go**

Outsource to distributed energy company (like Cogent Energy)

- Cogent Energy designs, installs, finances, operates and maintains plant
- 12 year ESA (Energy Supply Agreement)
- Electricity, hot water and chilled water priced competitively to black grid energy
- No gas price risk
- Capital contribution usually required (~ \$250k)
- Remote monitoring