

Opportunities for NatRefs equipment

North Sydney Council

Perfect storm

- Escalating gas prices
 - Need to reduce fossil fuel emissions
 - Councils have high demand for heating
 - Generally progressive on environmental grounds
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- Recent news Sutherland Shire Council? - pool heating costs skyrocketing because of gas prices - an opportunity

North Sydney Council is promoting renewable energy and Natural refrigerants

Renewable energy from ambient air is immune from regulations relating to transmission of electricity

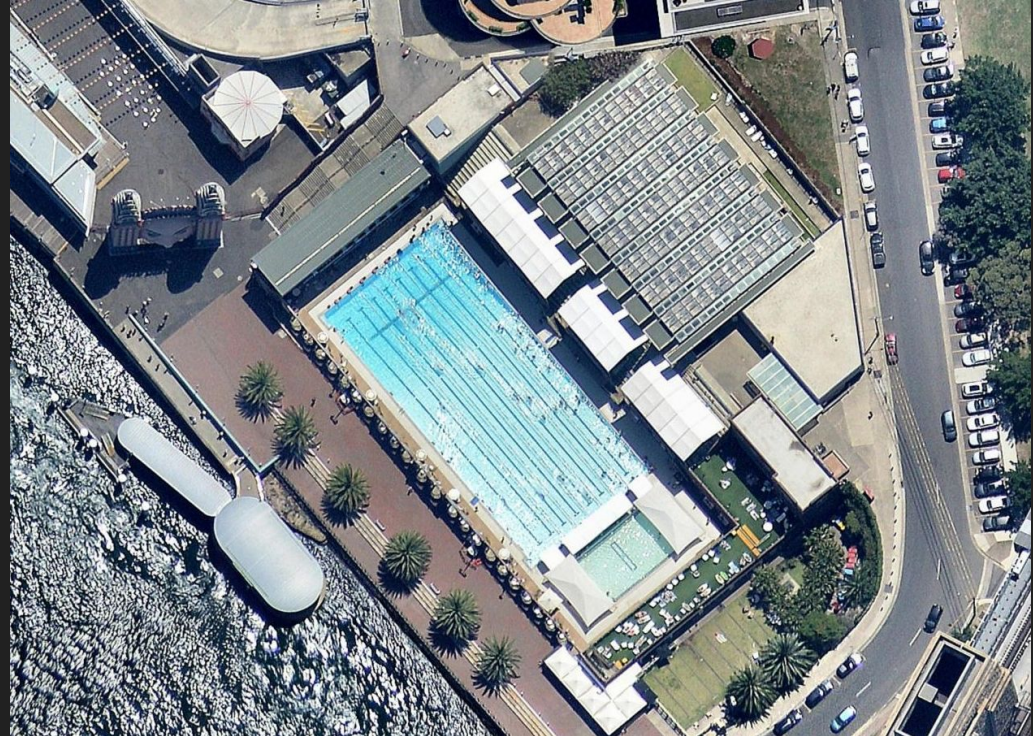
Heat pumps offer major operational cost savings over gas hot water heating

- Public Swimming Pools,
- HVAC gas boiler substitution
- Apartment Blocks centralised hot water
- RCAC split systems - Many replacement opportunities

North Sydney Olympic Pool - water heating - all year

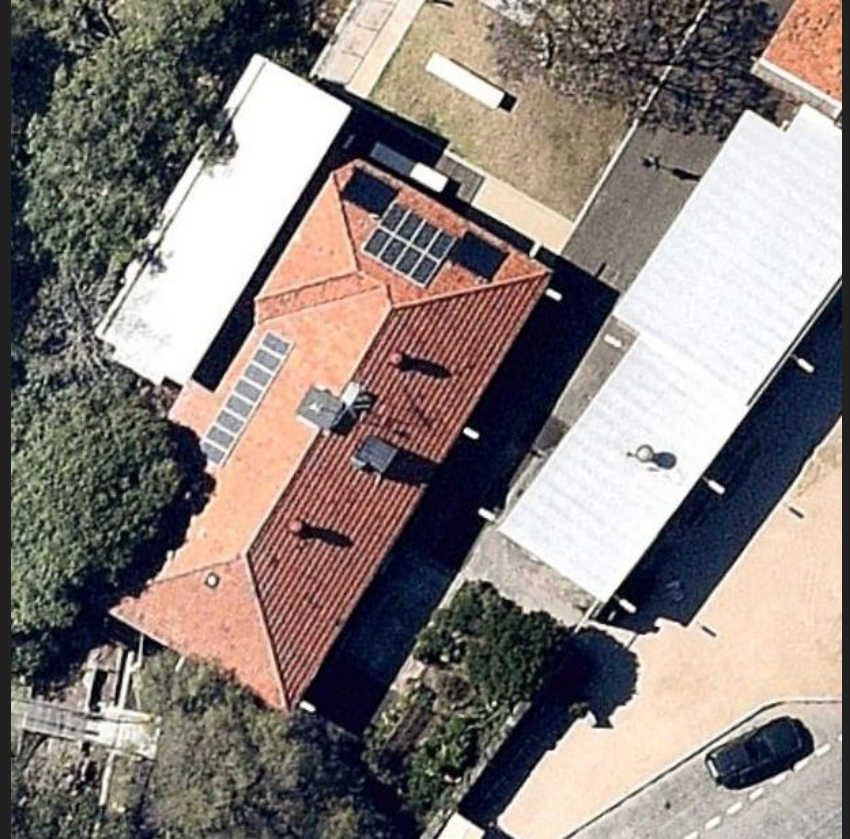
Heat pumps for pool heating

- 3 items - Installed 2001
- Output: 1000 kW
 - 375 kW (th) x 2
 - 233 kW(th)
- Seeking replacement/
refurbishment within
2 yrs



Reverse cycle air con

- Building area 235 m²
- **When - NOW**
- Hot summers
- Required mechanical cooling 30 days / year



HVAC- gas boiler substitution

Question- has anyone done the economics of replacing gas boilers with Natref heat pumps?

Example:

300 kW th

Atmospheric boiler



Apartment blocks- centralised hot water supply

- Apartment blocks are booming
- Gas hot water is typical
- Efficiency / Cop < 80% / 0.8
- Natref Heap pumps > 400% / 4
- Must be a good business case?



Gap in the market?

Peugeot partner 2010-15
NatRef hot water heat pumps for

- Sporting facilities
- Community Centres

Contact details

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