

# Beyond Coal

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dirtiest habit

# Coal in Australia

- One third of coal mined in Aust for domestic use, overwhelmingly for power generation:
  - Vic brown coal – mostly from Latrobe Valley - accounts for approx 65 million tonnes;
  - NSW & Qld black coal
  - WA, SA, Tas bit-part producers only for domestic consumption;
  - approx 15% Australian power generation for aluminium smelters.

# The fall and fall of coal in Australia

- Power demand down 6% since 2010 due to:
  - Restructuring (including aluminium plant closures);
  - Increased energy efficiency (lighting, appliances, insulation)
  - Increased solar PV/hot water
  - Increased renewables especially wind
  - Higher prices & carbon price PR scare campaign
- Cumulative impact on profitability of fossil fuel generation especially peak load.

# Australian coal exports

- Total current exports 375 million tonnes
  - 195 mt thermal coal from NSW, overwhelmingly from Hunter Valley via Newcastle;
  - 180 mt metallurgical coal mostly from Qld (with some from Illawarra & Hunter Valley in NSW)
  - Minor exports from Bunbury in WA (approx 700,000t)
  - No coal exports from Victoria; SA or Tas.

# What about China & India

- Fall of coal in US & most of Europe
- China January 2013 'airpocalypse' triggered massive switch in govt policy to 'anything but coal' – with big effect on future coal imports
  - Coal plant closures, bans on new plants, reductions in coal burn, increased plant efficiency, cuts to steel production
- India
  - Imports far more expensive than domestic coal
  - Water, air pollution, land conflicts, forests
  - Rise of renewables esp solar

# The Galilee Basin

- Huge new coal basin in central Qld but
  - Very limited infrastructure (rail, water, power)
  - Lower quality coal
  - High costs
  - Reliant on gov;t subsidies
- Adani's Carmichael mine 60 mtpa
- Clive Palmer's China First 40 mtpa
- GVK's Alpha 30mtpa +
- Abbott Point coal terminal expansion

# Whatever happened to CCS?

- For 20 years from the early 1990's carbon capture & storage/'clean coal' were promoted as solution to coal's CO<sub>2</sub> pollution but:
  - major technical hurdles;
  - high costs: little private funding; many govt's grown tired of taxpayer funding projects;
  - Increased water & coal consumption (+>20%) to generate same amount of power
  - Boundary Dam (Canada) & Kemper (US) – both very high high cost, low mitigation; less economic than efficiency and renewables.

# Getting Beyond Coal

- Important role for Australia
- Reduce exports
  - Finance & divestment (international & private banks)
- Domestic transition:
  - Efficiency & renewables boom
- China: impact on export market
- India – domestic coal boom and/or renewables boom?
- Coal imports to poor countries without domestic mines cripples economies and creates poverty



# Resources

- [Endcoal website](#)
- CoalWire weekly bulletin – [signup](#)
- [\*Big Coal: Australia's dirtiest habit\*](#) (New South Books)
- Tim Buckley [\*Briefing note: Fossil fuels, energy transition & risk\*](#), July 2014
- Tim Buckley, [\*Briefing note: Thermal coal outlook\*](#)
- Best Australian news source on the renewables revolution (incl coal) is [\*RenewEconomy\*](#)