

# Cofiring Potential in Australia

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Presentation (15 min)

Business Case / Fuel / Technical Options

Discussion (5 min)





# Overview of Delta

- ▲ Coal
- ▲ Hydro
- ▲ Hydro planned
- ▲ Biomass planned
- ▲ Gas planned



Mt Piper	2x660MW	1400MW
Vales Point	2x660MW	1320MW
<b>Wallerawang</b>	<b>2x500MW</b>	<b>1000MW</b>
Munmorah	2x300MW	600MW
3 mini hydros		570kW
Sugar Mills (2x30)+8MW		68MW
Colongra	4x167MW	667MW
<b>Total</b>		<b>5025MW</b>

Target: 10% Cofiring, 2x500MW tangentially fired boilers

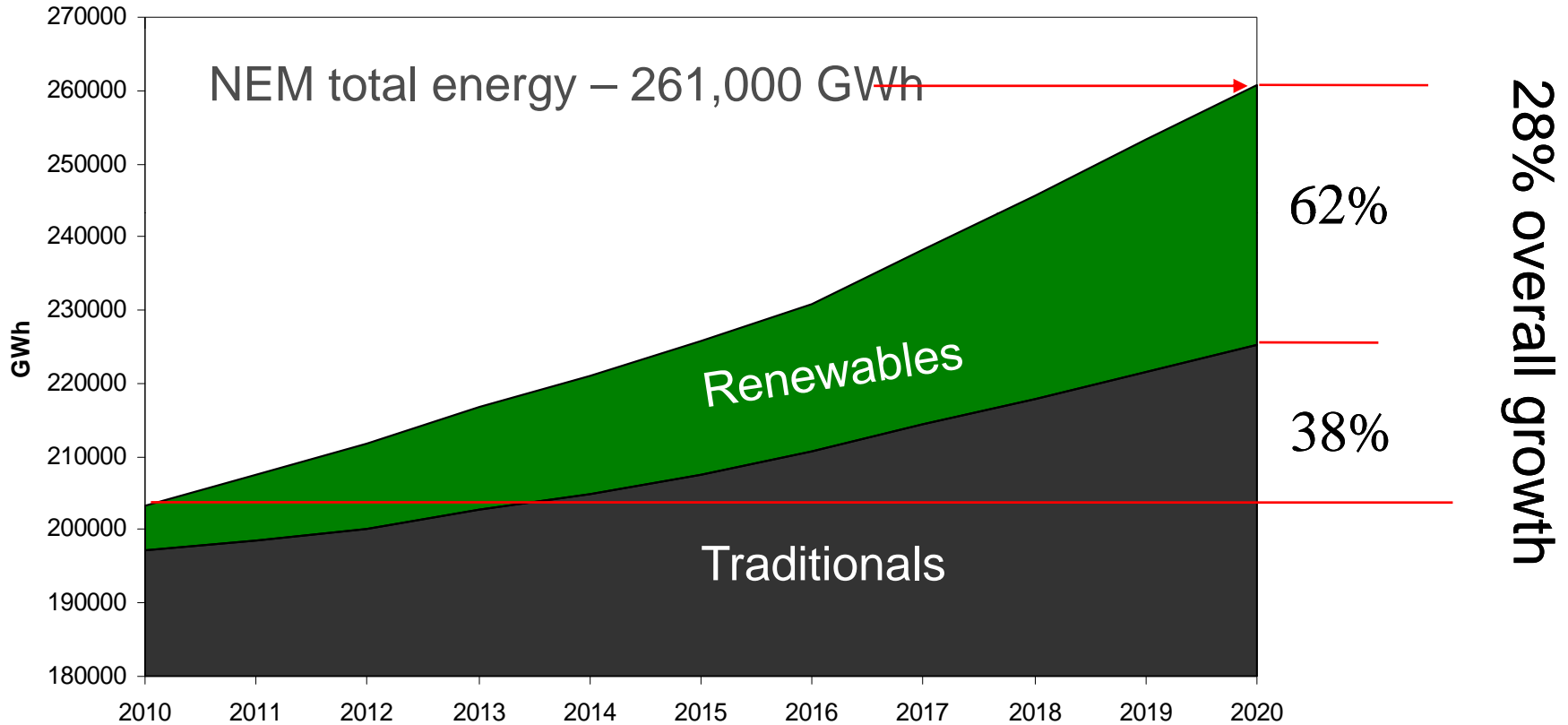
## Fuel

- No established pellet market
- Feedstock 25-50 Euro per tonne, Electricity 25-50 Euro/MWh
- Fuel typically clean but 50% moisture
- Transport distance within 200km

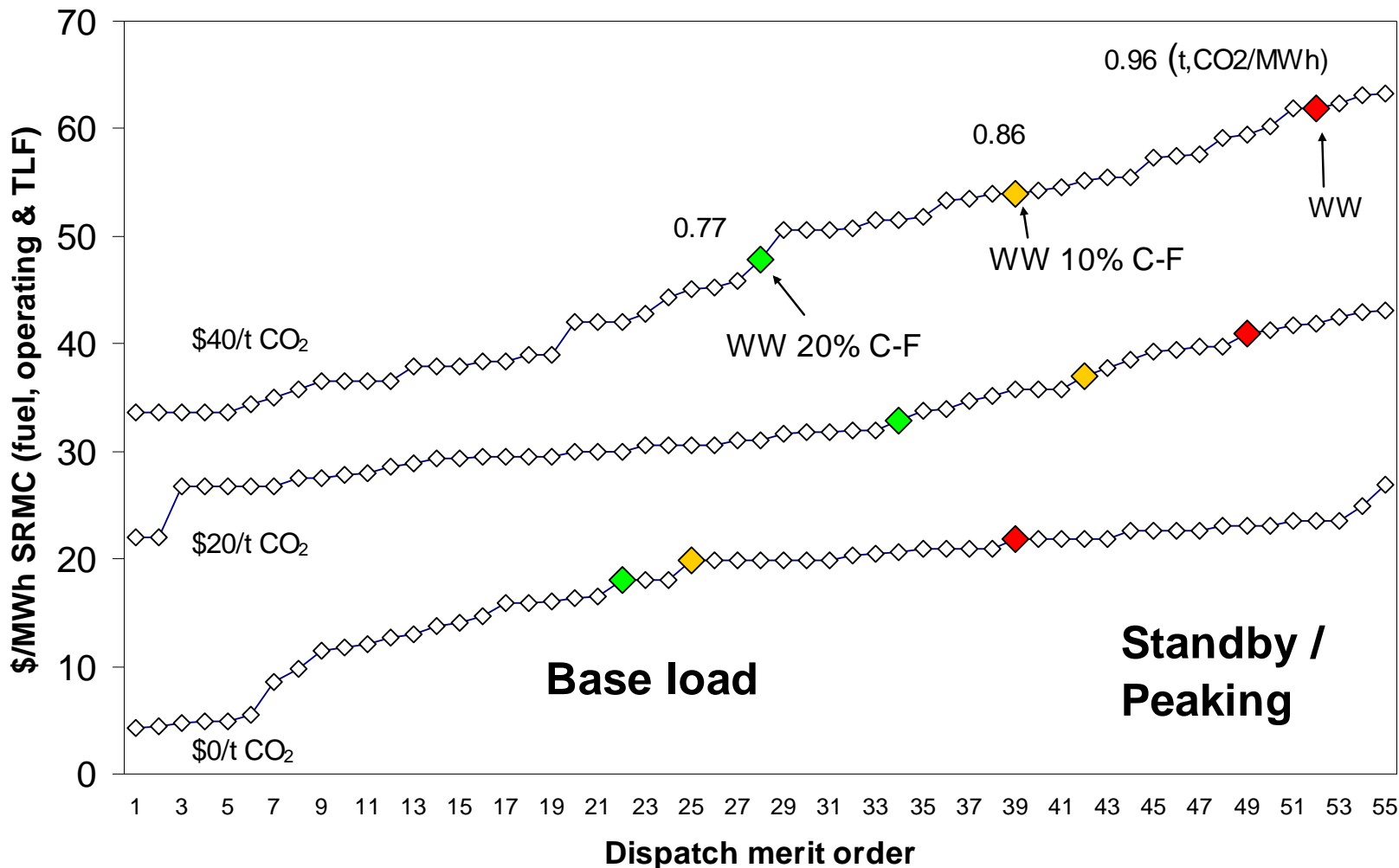
## Technical Options

- Option 1: Direct Co-firing wood flour
  - Option 2: gasification - syngas to existing boilers
  - Option 3: Dedicated biomass boiler
- Feedwater heating augmentation – most interesting

# Australia's Renewable Target 20% by 2020 = strong demand



# Eastern Australia Electricity Market Emissions Trading System (ETS) 2010



# Harvest Mallee Eucalypt

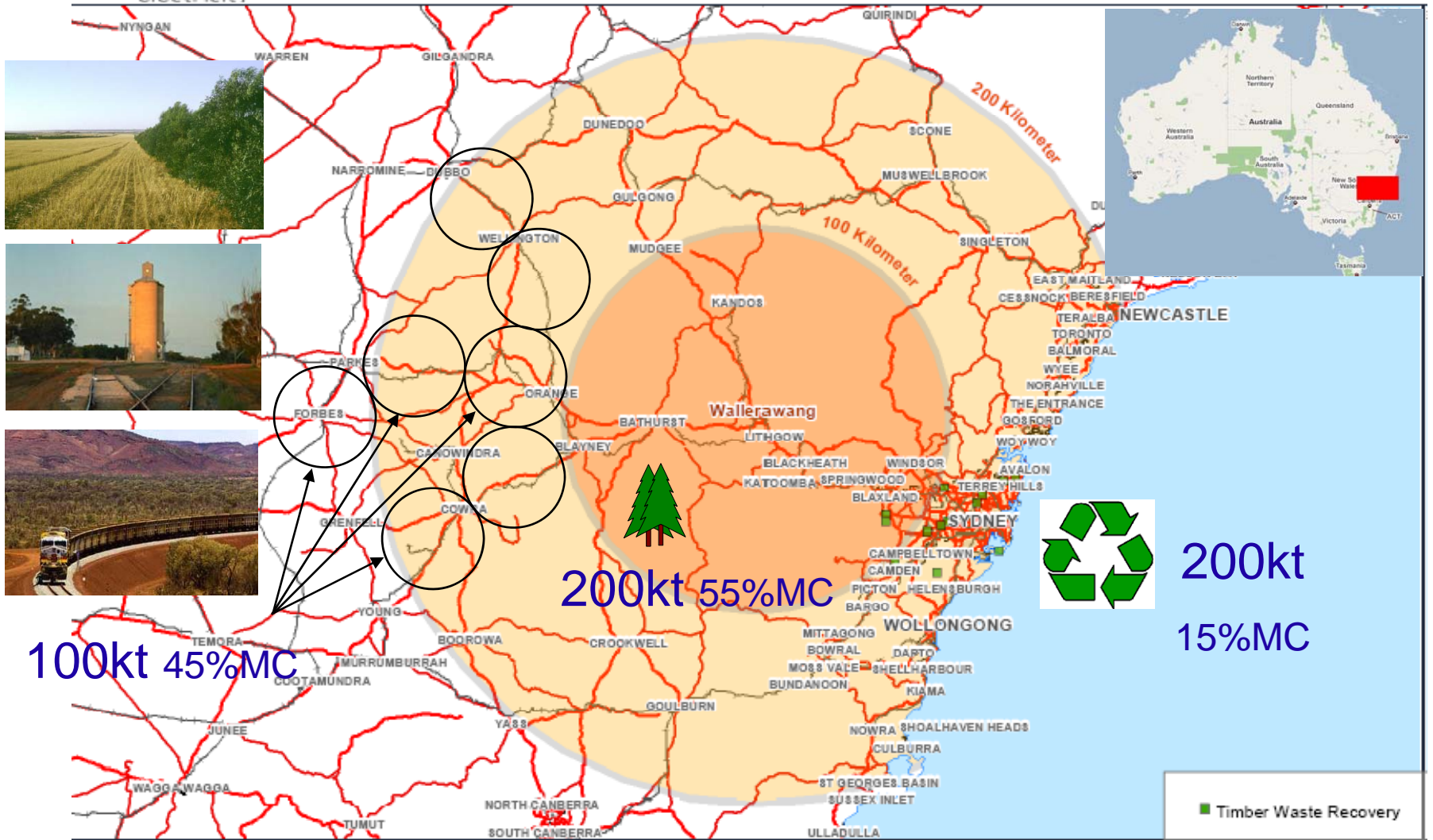
## Mallee

- “multi-stemmed” tree native to Australian wheat belt
- Adapted to harsh conditions
- the above ground stems lost during fire
- Large lignotuber root remains intact
- Many positive environmental benefits

## Plan

- Plant on marginal cropping land
- Harvest on 3 year cycles 5BDt/Ha/yr
- 500,000t/year
- 1.5% of New South Wales’ cropland
- 100kt/node 25km radius to rail hub
- Carbon Sequestration\* = On-farm revenue





100kt 45%MC

200kt 55%MC

200kt

15%MC

■ Timber Waste Recovery



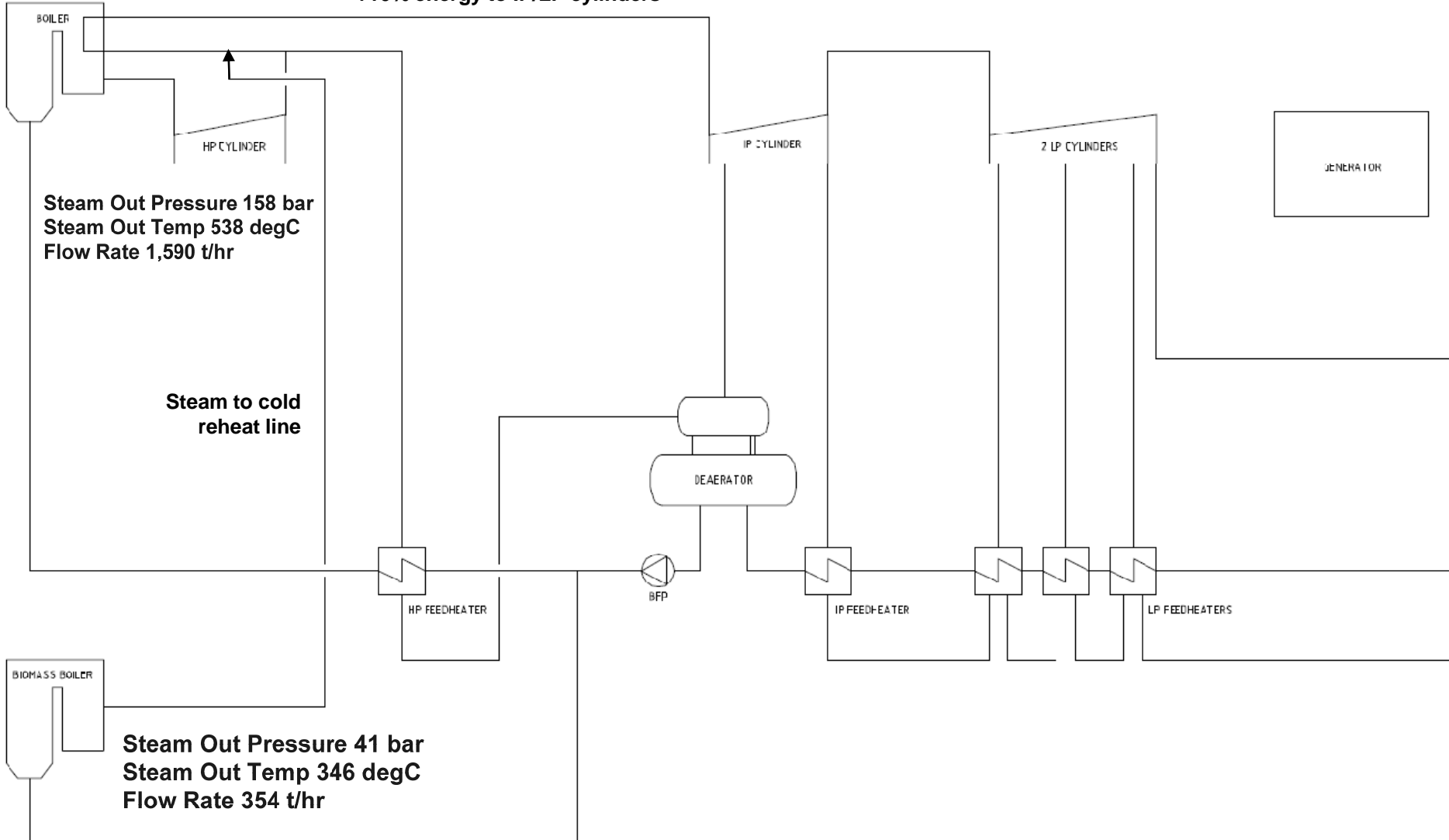
Project Location





# Cold Reheat Repowering

+10% energy to IP/LP cylinders





Questions?

