



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

CREATE CHANGE

# Carbon Capture & Storage @ UQ

## South East Queensland – in context

### 30 October 2018

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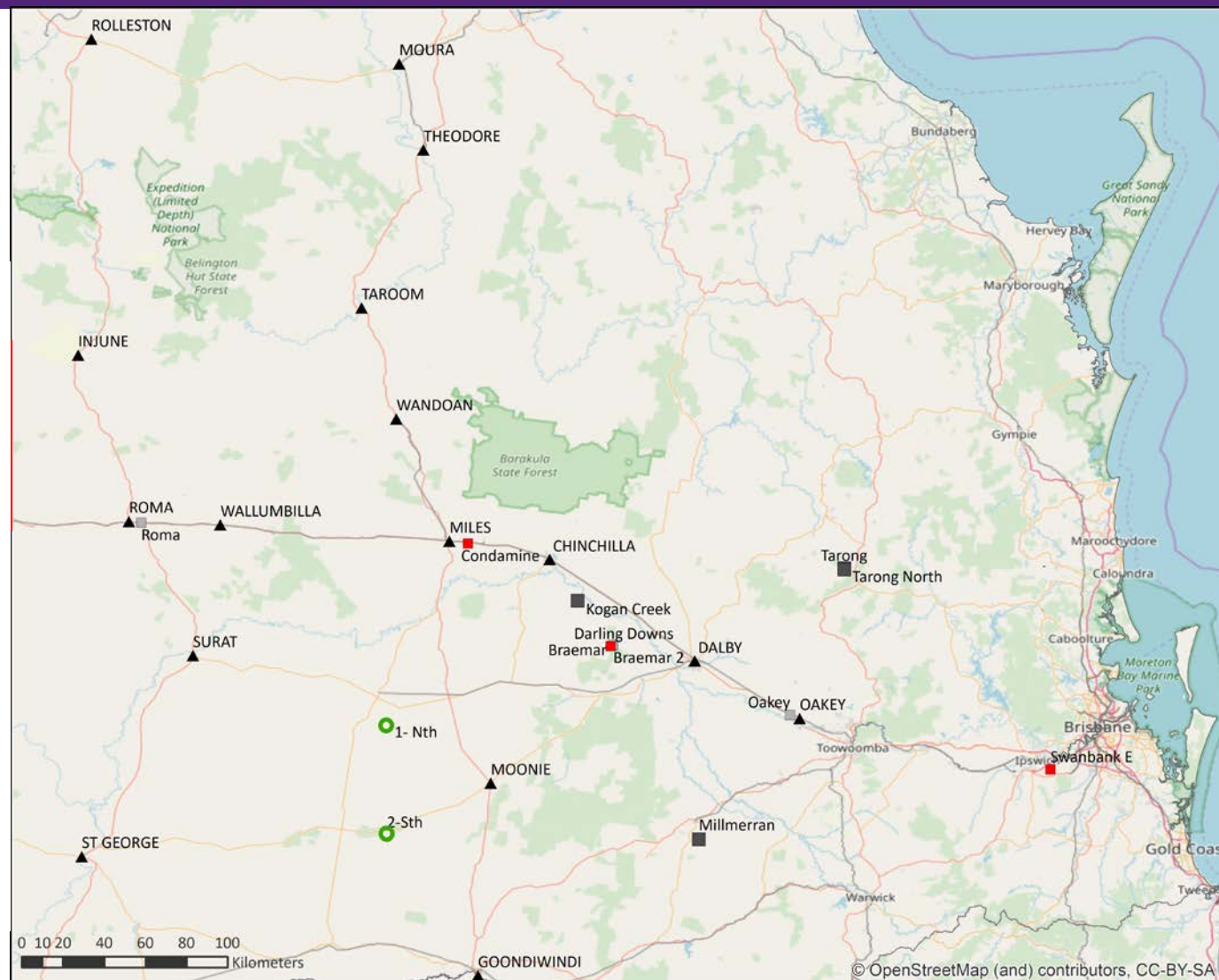
Research Team  
Prof Undershultz & Prof Ashworth et al

# >23 Mtpa of stationary CO2 emissions

*Provisional numbers only*

Power station	Type	Capacity (MW)	Emissions (Mt pa)	~ Years to ret'mnt
Kogan Creek	Coal SC	750	4.97	<u>39</u>
Millmerran	Coal SC	850	5.60	<u>34</u>
Tarong North	Coal SC	443	2.92	<u>34</u>
Tarong	Coal	1400	7.9	17
Condamine	CCGT	140	0.43	41
Darling Downs	CCGT	630	0.88	42
Swanbank E	CCGT	385	0.45	34
Braemar 1 & 2	OCGT	952	0.13	38
Oakey	OCGT	332	0.00	26
Roma	OCGT	74	0.09	25

Current baseload	<b>4598</b>	<b>23.15</b>
Poss. future baseload ?	2789	3.11
	MW	Mtpa



- ▲ Towns
- Notional CCS @ >2.3km depth
- Open cycle gas turbine
- Combined cycle gas turbine
- Black coal power station

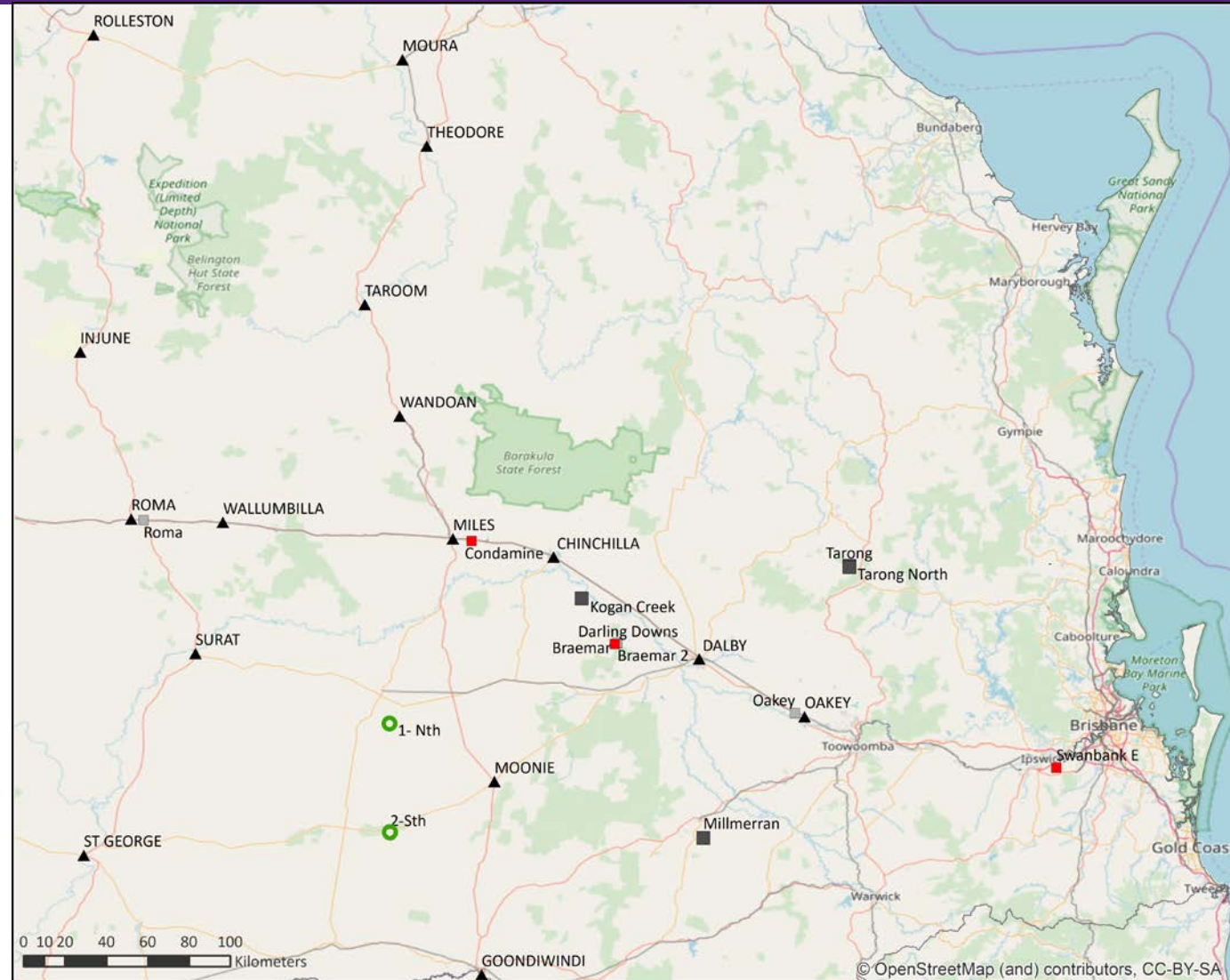
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Is there a real CCS (retrofit) option?

What would be the trade-offs?

- Reduce emissions materially ~20 million tpa
- Create ~1.7 GW low-carbon baseload
- Maintain ~510 regional jobs to ~2053
- Create 250 new regional jobs
- What impact on sub-surface at 2.3 km depth?



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# An on with the show

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