Australian Citizens Party

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MEDIA RELEASE

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Nuclear power for South Australia a 'game changer'

An Eyre Peninsula nuclear power station would be a "game changer" for South Australia, providing cheap electricity, and power for water desalination to support a new agricultural irrigation scheme. A White Paper by a US scientific team from the Massachusetts Institute of Technology (MIT), released by Senator Cory Bernardi on 24 October, shows possible nuclear power options that will enable South Australia to "become a major global hub for clean energy and high-value crops in the 21st century". Encouragingly, the scientists "surmise that similar results would apply to other Australian states as well as the country as a whole", which should be no surprise, as nuclear power's enormous energy density guarantees superior economic outcomes over diffuse and intermittent alternatives such as wind and solar.

The MIT paper advises that a sea-water supported nuclear power station built on the coast of the Eyre Peninsula (near Whyalla or Port Lincoln) would add 600-1,500 megawatts (MW) of desperately needed baseload generation capacity to South Australia's grid. Sea water could provide cooling for the nuclear reactors, and in addition a reverse-osmosis desalination plant located south of Whyalla would be powered by the cheap baseload electricity. The idea is a no-brainer given the insane alternatives. As the authors note: "Without nuclear, the average cost of electricity in SA would rapidly increase with decreasing carbon emissions, which seems consistent with what is actually happening." And true enough, along with Denmark's, SA's power is the most expensive in the world; it's no coincidence they share the highest proportion of wind turbines.

Additionally, the MIT paper proposes a safe repository for the world's spent nuclear fuel. This would generate "billions of dollars per year in collected fees" from the growing number of nuclear-powered nations; though as the CEC has previously argued, reprocessing spent fuel is the preferable option to obtain valuable isotopes and more energy. But in either case, taking other nation's spent fuel would be a boon for Australia. Interestingly, the MIT proposal suggests a state-owned company should own the spent nuclear fuel repository, and co-own the nuclear power station and the water desalination plant, which is at odds with Bernardi's voting record in supporting the privatisation of government assets.

The agricultural potential from water desalination in presently arid land is truly exciting. MIT modelled potato farming due to the crop's relative water efficiency, soil and climate suitability and notes export potential in Japanese and Chinese markets. The authors suggest South Australia could be home to the largest water desalination plant in the world, supplying 840 gigalitres of water per year to new farms in an area of 580 thousand hectares.

The MIT modelling "made very generous assumptions about the future cost of wind, solar and storage capacity", and if anything, nuclear power would be much cheaper than it suggests. But under their scenarios, prices would be between 9 and 60 per cent lower than under any combination of gas turbines and experimental battery-backed wind and solar power.

60 Minutes reports benefits of nuclear power, truth about Fukushima

A few days before Senator Bernardi released the MIT White Paper, on Sunday 21 October the 60 Minutes story "Going Nuclear" reported a few truths about nuclear power, in a manner uncharacteristic of mainstream media. Reporter Tom Steinfort has admitted he was previously anti-nuclear, but now he's clearly a nuclear convert. He covered the Japanese earthquake and tsunami in 2011 when the Fukushima Nuclear Station went into meltdown. Now he went back to Fukushima with scientist Dr Ben Heard. "It was an opinion that is generally bashed into us Australians from an early age—'nuclear is bad, will kill us all, disaster, disaster, disaster'", says Steinfort. Dr Heard and Steinfort visited the Fukushima area, including the failed reactor core, and "lived to tell the story"!

Driving just a couple of kilometres away from the Fukushima Station they reported radiation levels were less than a microsievert per hour: "that's lower than, just generally, life in Australia", said Dr Heard, who was once a paid-up member of the anti-nuclear Greenpeace. "Do you now think that Greenpeace sells a lie when it comes to nuclear?", asks Steinfort. "No, *I know* they sell a lie", replied Dr Heard. "We've stamped our consciousness with a fear from this incident that isn't well based in science", he said, standing outside the abandoned Fukushima High School. "Why aren't the students back here?" It is safe, insists Dr Heard. "The danger has long since passed."

While nuclear power generation dropped following the March 2011 Fukushima accident, global nuclear power generation has increased in every year since 2012, through to the latest 2017 data. Japan is progressively opening reactors which were closed for safety audits, and plans are locked in to build another nine reactors. The World Nuclear Association reports that as of October 2018 there are 55 reactors under construction worldwide. A further 151 planned reactors have approvals, funding or commitment in place and are “mostly expected to be in operation in the 2020s”. China has opened seven large nuclear power stations in 2018 alone; most recently, Tianwan 4 connected to the grid 27 October after construction started on 27 September 2013. Australia can’t afford to ignore nuclear power any longer.
