

How “green steel” could replace Australia’s coal industry – and end climate wars

Sophie Vorrath - One Step Off The Grid 10 May 2020

The establishment of a renewable energy-powered “green” steel industry in Australia would generate tens of thousands of jobs and an export market comparable to Australia’s coal industry of today, a new report has found.

Perhaps even more impressively, the Grattan Institute report argues that a renewables-based steel industry could solve Australia’s “climate policy conundrum,” by balancing strong action on global warming with the interests of the nation’s regional communities and “carbon workers.”

The 57-page research paper, published on Sunday, It assesses the potential of three sectors to help make Australia a green energy superpower – aviation fuel, ammonia, and steel – and settles on ‘green’ (near-zero emissions) steel as the largest and most economically viable opportunity.

“A range of clean energy industries could plausibly provide hundreds, or even thousands, of new jobs in Australia,” the report says. “But very few can plausibly provide tens of thousands of jobs, comparable to the number in [Australia’s] key coal mining regions.

“Green steel is the exception.”

Just as [Ross Garnaut described in last week’s Stimulus Summit](#), co-hosted by the Smart Energy Council and RenewEconomy, the idea is that steel manufacturing using solar and wind could both revive Australian manufacturing, and value-add renewables by using them to process export goods.

“Australia’s abundant solar and wind resources are well suited to making hydrogen, the key energy input to making green steel from renewable energy,” the Grattan Institute report says.

“And Australia’s lower-cost green hydrogen will make it a better place to produce green steel than places like Japan or Indonesia.”

.....According to the Grattan Institute, Australia has close to 100,000 “carbon workers,” which the report defines as employees of carbon-intensive industries such as coal mining, oil and gas extraction, fossil fuel electricity generation, cement manufacture and steel making.

“The future of Australia’s carbon-intensive industries, particularly coal mining, will be determined primarily in Beijing and New Delhi, not in Canberra,” it says.

.....Meanwhile, governments at every level should continue their efforts to build capability in making and storing hydrogen, the report says, consistent with the National Hydrogen Strategy.

“This exciting, credible opportunity for Australia will not be delivered in 2020, but it can be shaped over the next few years,” the report says. “The hard work must begin now.”

Read the full report [here](#)

ENERGY SYSTEM INTEGRATION

Speech by Commissioner Simson at the Energy Solutions high-level debate - “The role of industry in the implementation of the European Green Deal and the Climate Law” 5 May 2020

So, I have detailed greater energy efficiency and renewable energy as the first two areas of work. But the third area amplifies the impact of both, bringing them together into one connected system. This is Energy System Integration.

Energy system integration is how we connect the missing links in the energy system. It will guide us on how to increase the use of renewables via electrification, and how to use renewable and low-carbon gases for hard-to-decarbonise sectors while shaping a cleaner, more-efficient system overall. In other words, we are joining the dots.

Turning this vision into a reality requires action. Including decarbonising the remaining sectors of the economy, in particular those sectors so far dominated by fossil fuels, creating a more flexible power system by storing and transporting low-carbon electricity and making gains on storage and digitalisation.

Central to energy system integration is the deployment of new fuel sources such as hydrogen into the system. This has the potential to be a game changer. Today, its share is less than 1% in our system, and its mainly used as feedstock in the chemical sector. It could act as an enabler, especially for the hard-to-decarbonise sectors like heavy industry and transport.

So, hydrogen will be a central element in the Strategy for Energy System Integration that we will be launching in June.



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