

Coal comfort

While the Australian Government looks at a new coal power station in Queensland, there are no coal plants under construction in the rest of Australia or in North America. There is just one in Western Europe, which is nine years behind schedule.

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SUMMARY

The Australian Government is funding a feasibility study for a new coal fired power plant in Queensland. Despite the Government's enthusiasm for coal, around Australia and in other developed regions such as Western Europe and North America, there are virtually no coal-fired power stations being built.

There are no coal-fired power stations being built in Australia. Right to Information requests reveal government advice that an ultra-supercritical coal plant in North Queensland similar to the one proposed would only be viable with high electricity prices and without a significant carbon price.

There are no coal-fired power stations under construction in the United States, Canada or Mexico. The final coal plant built in North America was completed in May 2019, a tiny 17 MW combined heat and power plant on the campus of the University of Alaska. The last pre-construction coal-fired power project, the Holcomb Expansion Project, was cancelled in January 2020.

The one Western European plant under construction is in Germany. The Datteln 4 project, originally set to open in 2011 is now scheduled for operation in 2020, although the German climate movement will attempt to stop the plant from opening.

INTRODUCTION

In February 2020, the Australian Government announced it would provide up to \$4 million to support a feasibility study for a coal fired power station.¹ The study is into a July 2019 proposal by Shine Energy to raise \$2 billion by October 2020 to begin construction on a 1 GW “ultra-supercritical” coal-fired power station (sometimes referred to as the “Dhalgan Energy Park”) at the site of Queensland’s now-closed Collinsville coal plant.

Although the project was initially promoted as a combined coal plant–solar energy park,² the feasibility study funding appears to be limited to the coal plant.³ Although promoted as a “clean” and “low emissions” coal plant, Shine Energy says it is “essential” for investor confidence that the government indemnify them against the risk of a future price on carbon.⁴

No similar ultra-supercritical coal plant has been built in Australia. Right to Information requests revealed that a 2017 Energy Edge study into the viability of a new ultra-supercritical coal plant in North Queensland conducted for the Queensland Government found that it would only be viable in high price scenarios, without a significant carbon price; the result is similar to previous studies into the viability of ultra-supercritical coal plants and new coal plants in North Queensland.⁵

There are no coal plants under construction in Australia. The Global Energy Monitor identifies three coal plants in the “announced” stage: two units from Delta Energy at the old Hazelwood coal plant site and the aforementioned Shine Energy plant at Collinsville. The government has also proposed underwriting a “coal upgrade” at Vales Point.⁶

¹ Taylor (2020) *Backing reliable energy for commercial and industrial users*, <https://www.minister.industry.gov.au/ministers/taylor/media-releases/backing-reliable-energy-commercial-and-industrial-users>

² Kelly (2019) *Indigenous generator seeks carbon promise*, <https://www.theaustralian.com.au/nation/politics/indigenous-generator-seeks-carbon-promise/news-story/aaaed7c337829ca2016b7aa0786ad2d7>

³ Taylor (2020) *Backing reliable energy for commercial and industrial users*

⁴ Kelly (2019) *Indigenous generator seeks carbon promise*; Taylor (2020) *Backing reliable energy for commercial and industrial users*

⁵ Four studies – Energy Edge (2017), the Minerals Council of Australia (2017), Australian Energy Council (2017) and Townsville Enterprise Limited (2014) – summarised in: Queensland Government (2017) *RTI Management tool - 17-233*, <https://www.dnrm.qld.gov.au/rTI-tool/dnrme/17-233>

⁶ Australian Government (2019) *Underwriting new generation investments program shortlist*, https://www.energy.gov.au/sites/default/files/underwriting_new_generation_investment_program_shortlist.pdf; Greenwood (2019) *NSW coal power station considered for government funding*,

In 2018, coal investor Trevor St Baker announced that Delta Energy was applying to the Underwriting New Generation Investments program to build a 1.3 GW brown coal plant at the site of the now-closed Hazelwood coal plant.⁷ The project did not make it on the UNGI short-list.

With little investor interest in building new coal power plants, any future for the Shine proposal is likely to rely on government subsidy. While members of government have blamed lack of coal development on activists and “bullied” banks, a look around developed regions of the world find that Australia is not alone in moving away from coal.

NORTH AMERICA

There are no large coal plants under construction in the United States, Canada or Mexico.⁸

The final coal plant built was completed in May 2019, a 17 MW system at the University of Alaska (the Combined Heat and Power Plant).⁹ Even that is described as an “upgrade”. It experienced several months of delays and was “scraping hard” to stay within budget.¹⁰ A standard coal plant has capacity of hundreds or thousands of megawatts.

<https://www.2gb.com/nsw-coal-power-station-considered-for-government-funding/>; Hasham & Kelly (2019) *Vales Point upgrade on government shortlist*,

<https://www.theherald.com.au/story/5975746/vales-point-upgrade-on-government-shortlist/>

⁷ Potter (2018) *Trevor St Baker’s coal power plan hits reluctance of big banks on carbon*,

<https://www.afr.com/politics/trevor-st-bakers-coal-power-plan-hits-reluctance-of-big-banks-on-carbon-20180926-h15vj6>

⁸ End Coal (2019) *Global Coal Plant Tracker*, <https://endcoal.org/tracker/>; Puko (2019) *EPA Overturns Obama-Era Clean Air Rules for Power Plants*, <https://www.wsj.com/articles/epa-overturns-obama-era-clean-air-rules-for-power-plants-11560963259>

⁹ Storrow (2017) *Will the U.S. Ever Build Another Big Coal Plant?*,

<https://www.scientificamerican.com/article/will-the-u-s-ever-build-another-big-coal-plant/>; Ryan

(2019) *First U.S. Coal Plant in Years Opens Where No Options Exist*,

<https://www.bloomberg.com/news/articles/2019-02-11/coal-s-final-flicker-1st-new-u-s-plant-since-2015-set-to-open>;

Wood (2019) *Behind schedule: UAF officials hope to have power plant open by May*,

http://www.newsminer.com/news/local_news/behind-schedule-uaf-officials-hope-to-have-power-plant-open/article_81dabba0-59cb-11e9-9a08-3fa71e8156b2.html;

Toronto Star (2019) *Alaska university power plant tests draw neighbour complaints*,

<https://www.thestar.com/news/world/us/2019/05/23/alaska-university-power-plant-tests-draw-neighbour-complaints.html>

¹⁰ Wood (2019) *Behind schedule: UAF officials hope to have power plant open by May*

There was one announced plant in the US (the Holcomb Expansion), but it was cancelled in January 2020.¹¹ The cancellation of the Holcomb Expansion Project, which never made it out of pre-construction phases,¹² means that there are now no coal plants in pre-construction phases in North America either.

SunCoke Energy South Shore is planning to build a small 90 MW plant in Kentucky that would burn by-products of metallurgic coal production, rather than coal itself.¹³ It is not clear what stage of production it is in.

Two coal plants were nominally planned.¹⁴ A concrete pad was built for 320 MW unit at Two Elk Generating Station (Wyoming), but the unit's permit was revoked in 2015, and the 850 MW Plant Washington (Georgia) plant had its air permit lapse because it took too long to begin construction.¹⁵

WESTERN EUROPE

The one Western European plant under construction is Datteln 4, originally set to open in 2011, now scheduled for operation in 2020. The German climate movement has said they will attempt to stop the plant from opening.¹⁶

In 2017, the peak body for Europe's national electricity association – Eurelectric – signed a pledge to build no new coal-fired power plants in the European Union after

¹¹ Sunflower Electric Power Corporation (2020) *Holcomb Expansion Project Air Permit allowed to expire*, <https://www.sunflower.net/holcomb-expansion-project-air-permit-allowed-to-expire/>

¹² Sunflower Electric Power Corporation (2020) *Holcomb Expansion Project Air Permit allowed to expire*

¹³ Hatch (n.d.) *SunCoke South Shore Project*, <https://www.hatch.com/en/Projects/Energy/SunCoke-South-Shore-Project>; WSAZ News Staff (2015) *UPDATE: State Board Approves Permit for SunCoke Electric Plant*, <https://www.wsaz.com/home/headlines/SunCoke-Files-Application-for-Power-Plant-in-Greenup-County-280826742.html>

¹⁴ Energy Information Administration (2019) *Electric Power Monthly*, https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_6_05

¹⁵ Carbon Brief (2017) *Mapped: How the US generates electricity*, <https://www.carbonbrief.org/mapped-how-the-us-generates-electricity>; Storrow (2015) *Long planned power plant Two Elk faces increasing challenges*, https://billingsgazette.com/news/state-and-regional/wyoming/long-planned-power-plant-two-elk-faces-increasing-challenges/article_3ab9c289-eb14-5245-88f1-128e5ec5fd17.html; (2017) *Will the U.S. Ever Build Another Big Coal Plant?*

¹⁶ Neubauer & Henneberger (2020) *We won't let Germany build a new coal power plant*, <https://www.climatechangenews.com/2020/01/09/wont-let-germany-build-new-coal-power-plant/>; Reuters (2018) *Germany's Uniper warns that coal plant could be delayed further*, <https://www.reuters.com/article/us-uniper-results/germanys-uniper-warns-that-coal-plant-could-be-delayed-further-idUSKCN1GK0M2>

2020. Peak utilities from 26 of the EU's 28 member states made the pledge (Greece and Poland did not).¹⁷

Of EU countries, no coal plant other than Datteln 4 is under construction in Western Europe. In Central and Eastern Europe, Greece has one unit (Ptolemaida 5) under construction, Poland has four units under construction and the Czech Republic has one unit under construction.

There is one announced coal plant in Germany (Stade Dow Chemical); another announced plant (Niederaussem Unit L) was cancelled in April 2019. With Germany's planned coal phase out, Stade Dow Chemical's plant is also likely to be cancelled. There was one announced coal project in the UK (Captain Clean Energy Project), but it is now planned to use gas.

All non-EU European countries with coal plants at any stage are in Central or Eastern Europe.

CONCLUSION

The United States, Western Europe and Australia have almost entirely stopped building new coal plants. The final remaining full-size plant under construction, Datteln 4, has had a troubled run since its planned completion date in 2011.

With the CSIRO and AEMO finding that it is now cheaper to build renewables than new coal,¹⁸ Australia is highly unlikely to ever see another coal-fired power plant built.

¹⁷ Eurelectric (n.d.) *Our Members*, <https://www.eurelectric.org/membership/our-members/>; Neslen (2017) *The end of coal: EU energy companies pledge no new plants from 2020*, <https://www.theguardian.com/environment/2017/apr/05/the-end-of-coal-eu-energy-companies-pledge-no-new-plants-from-2020>

¹⁸ Graham, Hayward, Foster, Story, & Havas (2018) *Annual update finds renewables are cheapest new-build power*, <https://www.csiro.au/en/News/News-releases/2018/Annual-update-finds-renewables-are-cheapest-new-build-power>