

# Thomas Gordon

NWIW plans to use part or all of the methanol it hopes to produce as fuel in China. However, most of China's power comes from coal-fired plants now.

As reported in Carbon Brief, March 24, 2020, China, with more than half of its coal-power firms losing money and with the usual plant running at less than 50% of capacity, why is the Kalama methanol refinery being planned?

"Looking at the energy situation shows the China's network operator, State Grid, and the industry body, the China Electricity Council, are pushing for hundreds of new coal-powered power plants to be built. "And a recent update to the "traffic light system" for new coal-power construction signaled further relaxation of permitting." Even now, China, the world's largest emitter, who overtook the EU in 2003 and the US in 2005, is putting out nearly a quarter of global greenhouse emissions. Also, China is pushing ahead on renewables. The result is over-capacity, built on purpose. China is working to keep its options as open as possible in the future.

China's "economic miracle" has seen the country become the world's second-largest economy and pulled nearly a billion people out of poverty. But this progress has been built on a boom in energy from coal, meaning China has also become the world's largest carbon polluter by far.

China's CO<sub>2</sub> emissions increased again by around 2% in 2019, based on recently released official economic data, and 65% of the annual growth in energy consumption came from fossil fuels.

Coal is the most carbon-intensive fossil fuel and still accounted for 57.7% of China's energy use in 2019, the data shows. Coal plants, which burn approximately 54% of all coal used in the country, provide 52% of generating capacity and 66% of electricity output down from a peak of 81% in 2007.

Coal-fired power capacity grew by around 40 gigawatts (GW) in 2019, a 4% increase, and a pick-up from the past two years. As a result, the coal fleet's average utilization rate fell further, to below 50% on average.

Against this backdrop, there is already heated debate as outlined below over China's 14th FYP, (five year plan), which will set national targets and priorities for the next five years. The energy targets that will be set by the plan mean it will be a crucial document for global efforts to tackle climate change.

Under the existing 13th FYP, coal power capacity is capped at 1,100GW. Separate targets aim to raise the share of China's energy mix that comes from non-fossil sources to 15% by 2020. More detailed development plans set out indicative targets for sectors such as renewable energy. (Solar has significantly exceeded the relatively low indicative target that was set five years ago.)

Targets of a similar nature are likely to be set as part of the overarching 14th FYP, due to be agreed on early next year. Further details will then be set out in sectoral plans over the following year. The power-sector plan, which could include targets for the growth of most generation options but particularly renewables might be expected during winter 2021-22, based on previous cycles.

The stakeholder consultancy, scoping and drafting for the power-sector plan has already been started within the government system, with different academic organizations and think tanks tasked with producing research to support the process.

China's coal-power overcapacity dates back to the 12th FYP. This was formulated in the early 2010s as part of the largest economic stimulus programme in history, launched in response to the

global financial crisis. It targeted a huge expansion in coal mining and coal-fired power generation. Then, from 2014, the authority to approve new coal-fired power plants was transferred from the central government to the provincial level, in a drive to cut red tape.

Many local governments jumped at the opportunity to prop up GDP and create demand for locally mined coal with new power projects, leading to around 210 projects with a total capacity of 169GW being rubber-stamped in less than a year.

This surge of new projects came as demand for coal-fired electricity declined from 2013-2015, apparently catching the central government by surprise. It then moved to curtail approvals and suspend already permitted projects.

China's economic system is based on abundant and cheap capital being made available to the state-owned sector with little concern for economic viability, as long as the investments made are broadly aligned with the five-year plans.

This system can mobilize vast amounts of resources, but is prone to over-investment, as companies and local governments use capacity expansion to boost GDP and gain market share. The planning machinery limits overcapacity with control policies with varying levels of success.

Many experts and industry bodies argue for a move away from top-down targets and controls, to investment driven by market forces. However, the spending needed to fuel a new stimulus program can only be mobilized if investment is directed at the behest of the state, rather than the market as a rule, China does not fund stimulus with on-budget spending, but by directing state-owned enterprises and commercial banks to spend more. In these circumstances, lack of controls on capacity additions runs a high risk of over-investment.

For example, efforts to control overcapacity might be vulnerable to the political priority of boosting investment spending to reach economic targets. An indication of this was the loosening of "traffic lights" for new coal-plant approvals, published by the National Energy Administration in February. The traffic light policy was first introduced in January 2017 to prevent provinces with overcapacity from permitting new projects. A year ago, however, 21 of China's 31 provincial grids included in the policy were given a "green light". Last month this increased to 25."

Thus, there is no pressing incentive to build methanol-burning plants. However, one incentive is to use resources outside China in order to save internal resources.

There is no reason for us to build this plant just as a hedge against the future for China. The result for us is destroyed land and forests to get at the gas by fracking in Canada and the US. Leakage of methane will increase as more methane is pushed to Kalamazoo through aging gas lines, some 50 to 60 years old, the projected life times of some of these lines.

Plus, our electricity will be used to refine the methane into methanol through electric lines that created pollution in their manufacture and placement. The refining of methanol itself creates millions of tons of pollution. Lastly, transporting the methanol down the Columbia River and across the Pacific to China will create more pollution.

If this refinery is not built, all these green house gases won't be created either.

Please do not issue the permits for this refinery.