

Without permits to build things, there will be no clean energy boom

By Simon Lomax and Morgan Bazilian at the Colorado School of Mines

US lawmakers gathered on the White House South Lawn this week to celebrate the passage of President Joe Biden's landmark climate and clean energy bill.

"The future of America is bright," the president declared. But there is more still to do.

American green groups have lauded the legislation, which was signed into law last month and provides \$369bn in federal climate and clean energy incentives. As they should: it's their biggest victory in Congress since the early 1970s.

But now comes the really hard part: turning hundreds of billions of dollars of incentives into real projects.

To actually build new energy sources and infrastructure, developers need construction permits from multiple levels of government. There is a real danger that permitting bottlenecks and other legal obstacles could stall the energy transition.

Those hurdles are even higher for projects that haven't locked down their so-called social license to operate — a critical mass of public support that keeps any opposition, from environmental activists to "not in my backyard" groups and private landowners, within manageable levels.

In Maine, for example, a 1.2 gigawatt clean energy transmission line from neighbouring Canada — that would provide the same amount of energy as building a large-scale nuclear power plant — has run into trouble after being blocked by a statewide ballot measure last November. Last month, Maine's Supreme Court ruled that the ballot blocking the project was unconstitutional. Even if it now proceeds, it will have been needlessly delayed — and opponents may find other ways to slow down construction.

The clean energy package also aims to spur new domestic mines for materials needed to power electric vehicles — but getting permits for those mining projects will require urgent reforms to the review and approval process at the local, state and federal level. Currently, it can take as much as seven years to build a new mine and refining plant, according to industry analysts.

The pace of the current system is a huge problem, because domestic supplies of the lithium, nickel, cobalt and other metals used in vehicle batteries are limited.

According to the International Energy Agency, the world needs the equivalent of 30-50 new lithium mines, 41-60 new nickel mines and 11-17 new cobalt mines by 2030 to meet projected global EV demand.

Federal lawmakers are engaging in legislative dealmaking to speed up the permitting process where they can. This may be a step in the right direction, but it's far from a comprehensive solution.

The deal made in private between Senators Chuck Schumer and Joe Manchin on permitting legislation has been bashed by some, but that type of negotiation, and finding some imperfect solutions to improving permitting, is going to be necessary.

Clean energy that exists only on paper doesn't do anyone any good. To be real, it must be permitted, and then built. This requires tough detailed work that does not often make the spotlight. You can't just legislate and walk away.

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