

Does the great energy transition trump political change?

We think it will, and here's why.



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At least 50 countries will hold national elections this year. If there is one common theme, it is that voters want *change*. Leading platforms largely promise, albeit with few details, to take the world back to a “better time” – one that was less expensive, less crowded and less unfair. Meanwhile, the “stay-the-course” messages of many incumbents, particularly related to climate action, are proving a harder sell in 2024.

Some believe the great energy transition hangs in the balance: they will be proven wrong. This is because the *meaningful* drivers of the transition have very little to do with politics. Demographic changes, resource scarcity and ecological limitations are persistent and immovable forces.

Capital markets largely agree. According to the International Energy Agency (IEA) global annual investment in clean energy will surpass \$2 trillion USD this year, up from about \$1 trillion only a decade ago, while upstream oil and gas investment has declined by almost the same amount and is now *half* that of clean energy. The trend lines of clean and fossil energy investment are directionally inverse, and surprisingly smooth over the past decade *despite* significant political oscillations.¹

It would be naïve, however, to suggest that this current crop of national elections will have no impact on the transition. With so many elections either just decided or

still too close to call, it would be impossible, and likely of little value, to explore them all. However, here are a few observations and thoughts you might find interesting.

First, growing nationalistic tendencies and related protectionist policy, are likely to continue. For environmental sectors, protectionism exacerbates manufacturing bottlenecks and inflationary pressures. Examples are everywhere. In May, the Biden administration increased import tariffs on Chinese electric vehicles (EVs) from 25% to 100%, while the EU just moved ahead with provisional tariffs on Chinese EV imports that could eventually be as high as 48%.² In November, definitive duties will kick in. Canada started a 30-day review of Chinese EV dumping in June.³

Tariffs always create regional pricing discrepancy, but these ones are slowing the transition. Differences in global battery prices are a case-in-point. A recent Bernstein report puts the average Chinese lithium-ion (li-ion) battery price at \$102 per kWh, while Bloomberg estimates the global average is now at \$139 per kWh – this is an average, so prices in the West are higher still. The Mackenzie Greenchip team (Greenchip) has always believed \$100 per kWh was the tipping point where EVs and ICEs (internal combustion engine vehicles) could cost the same. Low battery costs partially explain the incredible penetration rates of EV sales in China, where five in every 10 cars sold



(and growing) are electrified. Uptake in Europe and US is only two and one in 10 cars sold, respectively, and this may even decline in some regions in 2024.

The cost differences are even more stark when it comes to solar equipment. Most of the world can purchase Chinese solar modules now for 11 cents per watt. After years of increasing import charges, solar modules in the US now average 33 cents a watt – three times as much! Unsurprisingly, the US accounted for less than 10% of global solar installations last year.

But it's not just about equipment costs. Trade protections are partly to blame for the decline in the competitiveness of US and European cleantech businesses. Consider that First Solar, the largest US solar manufacturer, is already producing modules that are significantly less efficient than their Chinese competitors, about 19.7%⁴ vs. 26.5%⁵ respectively. As such, First Solar panels are rarely used for rooftop installations where space is limited and efficiency matters. And First Solar panels are effectively unsellable outside of their protected market. The sad part is that First Solar had a huge head start on the Chinese manufacturers and was the largest global manufacturer in the late 2000s.

Solar manufacturing is also failing in Europe. Earlier this year, one of Germany's early leaders, Meyer Berger, approached Greenchip seeking help to finance moving their entire solar manufacturing capacity to the US, based on the calculus that Inflation Reduction Act (IRA) grants

and US protective policy would reinvigorate margins and might save them from bankruptcy. Its fate depends on collateralizing future government subsidies, and still hangs in the balance.

It seems disingenuous that Western governments have been spending so heavily on their own solar, battery and EV programs while pointing to Chinese state *overinvestment* as the rationale for their protectionist policies. With the Chinese now miles ahead in so many cleantech industries, it is unclear to us that tariffs will help the West catch up. The energy transition and the environment would surely benefit if Western industry and consumers took advantage of Chinese overproduction. Yet we cannot identify any election outcomes this year likely to reverse these Western protectionist tendencies.

Second, expect reduced and repurposed cleantech incentives and other “carrot” type policies. New governments in the West will walk into historic levels of debt and unsustainably high deficit to GDP budget ratios. Led by the US, Western deficits are historically unprecedented for non-recessionary, non-world war environments (demonstrated in the chart below). While local currency-denominated debt can be paid with newly created money, this is highly inflationary and destabilizing. And those countries that run persistently large trade deficits may ultimately be vulnerable to geopolitical and economic change.

Figure 1 – Government debt and current account figures for select countries and regions

| | Budget deficits | Government debt (% of GDP) | Current account (surplus or deficit) |
|----------------|-----------------|----------------------------|--------------------------------------|
| EMU* | -3.60% | 88.60% | 2.20% |
| Germany | -2.50% | 63.60% | 6.80% |
| France | -5.50% | 110.60% | -0.40% |
| UK | -4.50% | 101.00% | -3.30% |
| Italy | -7.40% | 137.30% | 0.50% |
| Spain | -3.60% | 107.70% | 2.60% |
| US | -5.90% | 126.40% | -3.20% |
| Canada | -1.20% | 72.10% | -0.80% |
| China | -4.60% | 56.10% | 1.20% |
| Japan | -5.10% | 251.70% | 4.20% |
| Brazil | -9.60% | 76.80% | -1.50% |

*The European Monetary Union alliance of the 20 European states that belong to the European Union and have introduced a common currency, the euro.
Source: Bloomberg, July 2024.



For these reasons, many argue expensive industrial programs like the disingenuously named US Inflation Reduction Act and the European Green Deal should be eliminated. We anticipate modification and rebranding over elimination.

For example, a Republican presidency would be hard pressed to fully repeal the IRA. According to Bloomberg, of the \$206 billion (USD) cleantech investment to date, \$161 billion (USD) (80%) and nine of the top 10 manufacturing plant investments have gone to Republican districts.⁶ Last summer, Fast Company estimated the IRA had already created 170,600 clean energy jobs.⁷ These numbers would be larger today and surely underestimate the full impact on IRA *related* employment. Politically, it's a tough Act to fully repeal.

Investment focus, however, is likely to change. To date, 82% of IRA spending has been directed to battery and EV manufacturing. In Canada, the combination of subsidies, loans and tax credits for EV and battery companies adds up to an incredible \$42 billion (CAD).⁸ With EV sales slowing in North America and some politicization of EV ownership, this sector is likely to receive less in the future.

We believe other industries, however, may see more. Nuclear is an example, which to date has received only 4% of IRA investment. Transmission and distribution (T&D or the “grid”) needs far more attention in North America, and not just as an enabler of artificial intelligence data centres. A 2023 US Department of Energy Report said the US would need 47,300 GW miles of transmission lines by 2040, some of this by 2030, just to ensure system stability.^{9,10}

In the UK, the incoming Labour government has promised to turn Britain into a nationalized “energy superpower”. Recharge magazine recently described the ambitious targets, “Keir Starmer steps into 10 Downing Street as the UK’s new Prime Minister having made bold promises to double onshore wind, treble solar and quadruple offshore wind by 2030, by which time it wants to kick fossil fuels off the grid entirely.”¹¹ In June, The Financial Times reported the idea had polled well, with 66% of voters supporting the idea.¹² While generation costs in the future will surely be higher and test this popular support, a lack of cheaper alternatives and a growing concern about energy should be supportive.

Nationalized energy programs aside, Greenchip has noticed a significant increase in generation and grid projects being awarded following market-based auctions, and less of the more-expensive public feed-in-tariff programs that initially

helped get early renewable projects off the ground. That in mind, tax incentive programs in the US like the Investment Tax Credit (that mostly helps solar) and the Production Tax Credit (that mostly helps wind) have been supported through both Republican and Democratic presidencies. Nevertheless, onshore wind and solar generally don't require such government support to be competitive. Offshore wind still has that need.

Political careers are rarely built on energy policy, but they often end prematurely when the energy file goes badly. Despite fiscal constraints, politicians will instinctively prioritize electricity system investment and many of the best solutions will be found in our sectors.

Our prediction is that Western “carrot” programs will focus less on still uncompetitive technologies, like battery manufacturing, green hydrogen, carbon capture and storage to name a few, and more on rebuilding generating capacity, and transmission and distribution infrastructure.

Third, incoming governments will employ fewer regulatory “sticks”. We believe growing populist inclinations around the world have generally eroded support for environmental protections and carbon taxes – pressure on existing regulatory “sticks” is growing.

For years, economists and environmentalists largely agreed that the most important climate regulation was to put a price on GHG (greenhouse gas) emissions. Fifteen years ago, Greenchip argued that an escalating, revenue neutral, carbon tax would be the most *efficient* way to implement this – ours was an economic, not political, analysis. But it wasn't until 2018 that the Federal Liberal Government in Canada put their version of the revenue neutral carbon tax into law. The price started at \$20 (CAD) per tonne in 2019, has increased to \$65 (CAD) today, and is scheduled to increase further in coming years.¹³

Canada has laid bare for the world how politically challenging it is to enforce a carbon “stick” directly on voters. The policy now seems all but dead. Pierre Poilievre, leader of the federal Conservative Party, seemingly has the majority of Canadians ready to “Axe the Tax”, as his populist slogan promises.

Long before Canada's carbon tax, the EU implemented the less politically challenging Carbon Trading Scheme, which was directed more at industrial emitters, not citizens. As annual emission “caps” were reduced, the price in theory would increase. This was largely the case until they peaked last summer around €100 per tonne.



They have subsequently dropped to about €60 per tonne. It too has been a tricky program with early fraud cases, countries fighting over their allocations and whether sinks (like planting trees) could be included. Some members have started arguing the cost is hurting their industrial competitiveness – it arguably is! The UK left the scheme in 2020, and populist parties in Europe have advocated for removal of emissions charges, and other environmental regulations too.¹⁴

Other evidence there will be fewer *environmental* “sticks” going forward came from the US Supreme Court in late June. The now highly politicized highest court issued three decisions, which combined, could have profound impact on the thousands of regulations, fines and penalties enacted by the Environmental Protection Agency. The New York Times concluded “fleet wide emissions standards” (for auto manufacturers) and carbon capture regulations (industry and fossil producers) will be particularly vulnerable to new legal challenges.¹⁵

To summarize, growing protectionism and “carrots and sticks” policy changes have been increasingly working against the energy transition. Sentiment for our sectors may in fact be at the lowest point since Greenchip was founded in 2007. But there is little evidence that the transition is under any existential threat. It is a very global phenomenon, driven by persistent and immovable forces that supersede political change. This is supported by growing capital investment in our sectors. While we tend to look for economic rather than political reasons to own the companies in which we invest, when political events drive negative sentiment to levels present today, this can create the valuation opportunity that asset managers like Greenchip thrive on.

- 1 [Overview and key findings, World Energy Investment 2024 – IEA](#)
- 2 [EU moves ahead with provisional tariffs on China EV imports – The Irish Times](#)
- 3 [Canada takes step toward boosting tariff regime on Chinese EVs by announcing consultation – CBC News](#)
- 4 [Series 7 - Made in America, for America – First Solar](#)
- 5 [Investor Relations – JinkoSolar](#)
- 6 [Biden’s IRA Sends Green Energy Investments to Republican Districts – bloomberg.com](#)
- 7 [\\$278 billion and 170,600 jobs: How the Inflation Reduction Act changed the economy –fastcompany.com](#)
- 8 [Canada’s committing tens of billions of dollars to the EV industry. Here’s a list of the planned projects so far – The Globe and Mail](#)
- 9 [EUCI More than 43,000 miles of new transmission lines needed in the U.S. by 2040, DOE study says | United States Department of Energy.](#)
- 10 [Labour promised to make the UK a clean energy superpower: can it deliver? – Recharge](#)
- 11 [GB Energy: can Labour’s plan to become a ‘superpower’ pay off? – ft.com](#)
- 12 [The federal carbon pollution pricing benchmark – Canada.ca](#)
- 13 [How will gains by the far right affect the European Parliament and EU? – Chatham House.](#)
- 14 [Supreme Court Extends Time Frame for Challenges to Regulations – The New York Times.](#)

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