The Great Energy Summit: The unstoppable transformation

Views from sustainable changemakers and energy experts

Key points

- The Great Energy Transition will take longer than expected.
- Electrification will be a huge investment theme over the coming years
- The world will need a diversified power grid
- Traditional resources are critical to transition, but have seen underinvestment
- Canada's oil patch is evolving to meet the challenge

Global climate change may well be humanity's greatest challenge. It's also one of the greatest investment opportunities, requiring an estimated $2.5 trillion in new capital investment per year to keep the temperature of the Earth near pre-industrial levels.

In our most recent event, we heard from a pioneer in climate investing, Tom Rand, Managing Partner, ArcTern Ventures, as well as John Cook, Portfolio Manager, Mackenzie Greenchip Team and Benoit Gervais, Portfolio Manager, Mackenzie Resources Team.

We also heard from senior leaders from Enbridge and Suncor on their companies' plans to adapt to meet the climate challenge.

The risk

Increased wildfires, flooding and drought – the physical impact of climate change is already apparent, said Tom Rand, Managing Partner at ArcTern Ventures. These devastating events are unfolding in a period when temperatures have risen about 1 degree Celsius above pre-industrial levels.

"Extend out to 3 or 4 degrees, which is really where we're headed," he said. "Now go from the physical risk of climate to the economic and political risk. The military community calls climate risk a 'threat multiplier' … they talk about how those physical events push and pull at our social fabric and tear where its already weakest."

For example, he drew the line from Syria's devastating drought to farmers leaving their land, food prices spiking, civil unrest flaring and refugees fleeing to Europe. The result was a rise in neo-Nazi groups – ultimately due to a climate event.

"The threat to our civic infrastructure is very real. I wouldn't underestimate the political risk that comes with a new kind of populism. Imagine a decade or two out, when people are scared for their food security, the kind of political instability that can bring."

These risks provide a great incentive and there is a great deal of freedom for the investment community to choose how it will address the situation. If the free market fails to develop a solution, he expects there will be far more intervention into the economy.

"The good news is that business leaders are beginning to get loud on climate," he said. "You can't hire smart young people without a progressive, explicit position on climate, and some real targets on how your company's going to get on with it."

A radical shift

While he describes himself as a bull on climate tech, he remains a bear on climate risk due to challenges in reaching a scale that would have a meaningful impact. There is no precedent for reducing emissions as rapidly as is necessary, and the most powerful tools at humanity's disposal are investment and private enterprise.

"What I call 'climate capitalism' is a complete rewiring of our economic system, and that's going to be done over the next decade or two," Rand said. "It will be a set of rules, regulations, incentives, disclosure agreements that is unique to each country and allows the private sector to play in tune with this transition to a low carbon economy."

A prime example of climate capitalism in action is the rise of electric vehicles. Like any previous technological revolution, he says there is no way to stop them from becoming the dominant form of ground transportation in the years to come.

"It has everything to do with technology cost curves changing the dynamics of the energy system, whether we like it or not," he said. "As an investor, get on this wave because it's going in one direction. Cost's coming down, performance is going up."

A radical economic shift is far more desirable than doing nothing, given that would lead to more devastation and an even more radical political shift.

"The heroes of this story are the people who move the needle," he said.

The opportunity

Many investors may not recognize the scale and complexity of the great energy transition, said John Cook, Co-Lead for the Mackenzie Greenchip Team. He argued that not only do we need to replace much of the existing electric infrastructure and generating capacity, but it needs to be doubled, as electricity demand has been growing at about 3% per annum over the last decade.

Achieving this transformation will require a massive amount of resources – energy, materials and capital.

"This is probably the largest capex opportunity in history," said Cook. "I think many investors may not realize that we are going to bend demand for traditional resources up and to the right, in a way we've never seen before."

The role of traditional resources

Simply avoiding investments that still emit carbon will exclude many companies that may take decades to achieve carbon neutrality, while producing the goods that people still need, said Benoit Gervais, Head of the Mackenzie Resource Team. Engaging with these businesses to make them cleaner would be a better way of tackling the issue.

Investment decisions based on the weighted average carbon intensity (WACI) of a business may not have the impact investors desire.

Aluminum production, for example, generates a high level of emissions, but will be a crucial element in building lighter vehicles that are an important part of a low-carbon future.

"When we put a value on carbon on a global scale, then clean versions of certain materials are going to trade at a much better price," said Gervais, pointing out that emissions associated with Canadian aluminum are one-fifth that of aluminum from China.

A heavy focus on the carbon footprint of public companies may drive these companies to sell off carbon-heavy assets to private investors, who are less likely to attract attention, said Cook. The capital expenditures required for a carbon neutral future will generally have higher emissions in the near term.

"If I told you building wind turbines is good for the planet, I think you would agree," said Cook. "But they sit on top of steel towers that are made using coking coal. Shifting capital away from those high carbon solutions is an unintended consequence that I don't think is helpful in terms of trying to lower global emissions overall."

When seeking investment opportunities, one of the things his team looks for are businesses that are building efficiency into existing processes, essentially producing more, with less.

The cost of clean

Gervais believes the clean version of materials will cost more than traditional production methods.

"We haven't built aluminum smelters in the developed world for a long time. It was widely assumed that China could build them much cheaper than we could," he said. "And they did, but unfortunately they did it with a different environmental footprint."

About a decade ago, investors began to take seriously the risk of stranded assets in the oil and gas sector and capex peaked in 2014. Investment shifted to the future energy paradigm, ignoring the necessity of fossil fuels to get us there.

"Stranded assets are a business risk that all investors need to pay attention to – it's not specific to the oil and gas sector," said Cook. "Think about light bulbs. Where did all the plants go that manufactured compact fluorescent bulbs? They don't exist anymore. Some companies made the transition, others didn't."

Gervais said it was too early to say the oil sector will fade away completely. He is focused on determining which companies will reinvent themselves.

Oil patch evolution

Among the traditional energy companies that are doing just that are natural gas distributor Enbridge and integrated energy producer Suncor.

"An orderly energy transition will take many decades, and as such we will continue to produce oil and refined products. We see oil demand increasing through the middle of the next decade, and then a gradual decline," said Trevor Bell, VP Investor Relations, Suncor. "Given this view, we expect very modest oil production growth, and expect 800,000 barrels per day to 2025."

Over the same period, Suncor expects its free funds flow to grow by more than $2 billion annually, through margin enhancements.

"We have concrete plans to be a net zero company by 2050, with 35% of this goal to be achieved by 2030," he said, comparing the reduction to taking 2.3 million cars off the road.

"We're going to invest in profitable low emissions businesses, or as we call it, our energy expansion strategy," Bell said, listing three opportunities:

- **Low carbon power**, such as co-generation facilities at existing plant operations. A new 800-megawatt co-generation plant will be completed in 2024, replacing an existing coal-fired system, reducing CO_2 emissions by five megatons
- **Renewable liquid fuels**, including a biofuel facility in Quebec, which is expected to come online in 2023. The plant will convert municipal solid waste and forestry residue to 2,100 barrels per day of methanol.
- **Clean hydrogen**, with a proposed project to build a 300,000-ton hydrogen production facility in Edmonton. The plan is expected to reduce emissions by two megatons. If approved, the plant could be online in 2028.

"These projects get us 75% of the way to our first hurdle, a 10-megaton reduction by 2030," he said.

Enbridge has also committed to net-zero by 2050 and has invested $10 billion into renewables over the past 20 years, according to Max Chan, VP Treasury and Enterprise Risk for Enbridge Inc. These investments have included wind and solar assets across North America and Western Europe. The company is currently exploring renewable natural gas and hydrogen which leverage its existing infrastructure.

"For the foreseeable future, the world will need all forms of energy," said Chan. "The mix will shift over time, but these are not binary outcomes."

One of the challenges to reinventing their firms is the wave of divestment from fossil fuels by large institutional investors. This has forced the sector to rethink how it raises capital.

In 2021, Enbridge issued more than $2 billion in sustainability-linked bonds (SLBs), the pricing of which is tied to achieving certain ESG goals. For Enbridge, these goals include a 35% reduction in emissions by 2030, a 28% diverse workforce by 2025 and 40% female representation on its board by 2025.

"As a leader of an energy infrastructure company, I have a pretty strong view that divestment campaigns don't work," said Chan. "In fact, they delay energy transition progress by driving up the cost and access to capital for companies that are investing in this."

Bell agreed saying, "We will need more capital to fund the transition," Bell said. To achieve this access, Suncor has partnered with First Nations, helping them to acquire ownership of energy infrastructure. In one deal, the company sold a 49% stake in a tank farm to two First Nations for $500 million, which the communities raised through their own bond issuance.

A second funding model involves large scale carbon capture, for the oil sands industry to materially reduce emissions by physically linking operations to a massive sequestration system. The cost of the project is $75 billion over 30 years but will preserve $3.1 trillion of GDP for the country.

"We are working with the federal and provincial governments on fiscal support, similar to what's been instituted in Norway, the Netherlands and the US, to support their climate objectives and the competitiveness of their industry."

Suncor and other companies representing 95% of oil sands production launched the oil sands Pathways to Net Zero Alliance, with the goal of achieving net zero by 2050, which would represent a 68-megaton per year reduction in emissions – a 10% reduction in Canada's total emissions.

For the full event please watch the replay video.

FOR ADVISOR USE ONLY. No portion of this communication may be reproduced or distributed to the public as it does not comply with rules for investor sales communications. Mackenzie disclaims any responsibility for any advisor sharing this with investors.

Commissions, trailing commissions, management fees and expenses all may be associated with mutual fund investments. Please read the prospectus before investing. Mutual funds are not guaranteed, their values change frequently and past performance may not be repeated.

The content of this communication (including facts, views, opinions, recommendations, descriptions of or references to, products or securities) is not to be used or construed as investment advice, as an offer to sell or the solicitation of an offer to buy, or an endorsement, recommendation or sponsorship of any entity or security cited. Although we endeavour to ensure its accuracy and completeness, we assume no responsibility for any reliance upon it.

This communication may contain forward-looking information which reflect our or third-party current expectations or forecasts of future events. Forward-looking information is inherently subject to, among other things, risks, uncertainties and assumptions that could cause actual results to differ materially from those expressed herein. These risks, uncertainties and assumptions include, without limitation, general economic, political and market factors, interest and foreign exchange rates, the volatility of equity and capital markets, business competition, technological change, changes in government regulations, changes in tax laws, unexpected judicial or regulatory proceedings and catastrophic events. Please consider these and other factors carefully and not place undue reliance on forward-looking information.

The forward-looking information contained herein is current only as of September 8, 2021. There should be no expectation that such information will in all circumstances be updated, supplemented or revised whether as a result of new information, changing circumstances, future events or otherwise.

Your privacy is important to us. Please review Mackenzie Investments' Privacy Protection Notice at: mackenzieinvestments.com/en/legal/privacy-protection

©2021 Mackenzie Investments, 180 Queen St W, Toronto, ON, M5V 3K1. All rights reserved.