

Capital, Commitment and Time: What the Energy Transition Needs to Succeed

A growing number of governments and corporations say they're in. So too, it seems, does the average investor. But the pursuit of a net-zero carbon future is riddled with challenges and current market conditions may only be exacerbating the situation.

Members of AGF's Investment Management team recently sat down for a special roundtable to discuss the energy transition and what it will take to make it work.

Questions and answers that follow have been edited for clarity and length.

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How would you characterize the energy transition to date?

Martin Grosskopf (MG): There's little doubt that most governments around the world are committed to an energy transition that will shift the global economy towards a lower carbon future. The most recent United Nations Climate Change Conference (COP 26) last year is just the latest example of that. Moreover, the same type of commitment is also shared by a growing number of corporations. In fact, a recent survey of Bank of America equity analysts showed something like 92% of the companies they cover indicated that they have made a commitment or pledge to help achieve a net-zero carbon future, meaning commitments like these are now part of everyday business strategies and embedded in the mentality of financial markets – at least to some extent.

That said, we're still nowhere near being on the net-zero carbon trajectory that is required to hold global temperature increases at 1.5 degrees Celsius above pre-industrial levels and preserve a livable planet. Instead, increases are probably tracking somewhere in the range of 3.5 to 4 degrees Celsius, which, if that continues, could result in devastating climate effects and have drastic implications for our social and economic well being. Worse yet, current events, such as the Ukraine War or the recent rise in global interest rates, seems to be getting in the way of our ambition to decarbonize and may further complicate what was always going to be a long and messy transition.

Damola Adesoye (DA): What makes the energy transition so complicated is that we're trying to change the way we use energy – whether that's regarding the buildings we inhabit, or transportation, or for the purpose of industry – but also how we create it. And while the goal on both sides of this equation is to reduce our reliance on fossil fuels by replacing them with less carbon intensive alternatives, including green hydrogen and renewables like solar and wind, there are several unique challenges to each of these aspects, all of which can differ from one region of the world to the next. For instance, fuel oil is still being used as a primary source of heat in buildings in some European countries, as well as in the cold climate regions of the Northeast and Midwest United States. Meanwhile, in the rest of North America, natural gas – through a central furnace – is used more extensively. At the same time, Europe doesn't have the same abundance of renewable energy at its fingertips as the United States or Canada seemingly does, so the transitions in these two regions going forward may end up being very different from each other in terms of solutions and the pace of change.

Steve Bonnyman (SB): Energy consumption per capita also continues to rise as countries in Africa, the Middle East and many parts of Asia and Latin America try to raise their standard of living. In turn, the structural ability to immediately change the source of our energy consumption is becoming even more of a challenge. Plus, not everybody can afford to buy an electric car and instantly rid themselves of combustible engines. Nor can we retrofit a building or a house so it runs on more renewable sources of power without considerable time



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and money. In fact, it remains questionable whether our existing infrastructure could even cope with a switch like that. Until we can solve for these types of limitations, the transition is going to take some time and is susceptible to fits and starts along the way.

John Kratochwil (JK): Perhaps China offers a good example of what's been said already. It's looking to switch more of its energy production towards nuclear. We're talking about 150 plants in the next 15 years, according to a recent report by BNN Bloomberg, but this probably took five to 10 years to plan out. So, while we talk about wanting to reduce our carbon footprint as soon as possible, it's more reasonable to believe it's going to take two or three decades for that to take hold in a meaningful way.

The Ukraine War has thrown energy markets into chaos, but what is the direct impact of it on the energy transition?

Lazar Naiker (LN): With Russia being a significant producer of oil, gas and coal, the war has had a significant direct impact on the supply of these commodities. This is mainly because of embargoes related to Russian imports and has caused prices to soar as demand for energy remains relatively undiminished. The big question now is what to do about it. Given the net-zero commitments already discussed, it may seem counterintuitive for politicians to want to ramp up oil and gas production, but until we have sufficient renewable capacity, there may be no other option. Despite the war in Ukraine, the current

supply crisis has been a long-time coming and highlights the dangers of transitioning away from fossil fuels too quickly. For years, we've told traditional energy companies that we're not going to use their products anymore, disincentivizing them from investing the required amount of capital to produce the energy we require in the short-to-medium term before we have built out sufficient renewable generation.

SB: The reality is that a big block of supply has been constrained and most people are probably more concerned about the economic fallout of higher oil prices than they are about the carbon emissions from oil in the near term. It's a difficult trade-off to make, but not unreasonable given the stakes.

Dillon Culhane (DC): The war highlights what might be called an energy "trilemma" that is forcing us to consider the trade-offs between the cost of energy, decarbonization of energy and energy security all at once. Of course, of these issues, security is now arguably the most important, while before the Ukraine War it was barely a concern. Look at Europe over the past few years, for instance, which has cut production, offshored supply and generally been focused on building out its renewables capacity. But now Europe's largest source of oil and gas (i.e., Russia) is effectively lost to it, which has not only driven up energy prices, but has also put decarbonization on the backburner in deference to energy security. People are simply more worried about heating and powering their homes and keeping industry going than they are about reaching climate targets down the road. And because Europe has shut down so many of its



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nuclear plants as well as gas production, many countries find themselves burning more coal again because it's the easiest source of energy to bring back online. In other words, the European Union may be trying to transition too fast and is now suffering the consequences of that.

DA: From a medium to long-term perspective, the war in Ukraine may strengthen the argument towards decarbonization. How do we ensure energy security when the current energy complex is dependent on regimes that are not reliable? Renewables for one. Regions with enough solar or wind at their disposal won't be as dependent on shipping for their energy needs from other regions as those without the same abundance. So, yes, over the short term, we may need to fix the current supply/demand imbalance by increasing fossil fuel production. But maybe the only way to get energy security is to build more offshore wind farms or use more distributed energy resources like battery storage or solar on residential properties. Simply put, these localized solutions will spring up because we want energy security and view the risk of shipping our energy needs via pipelines or tankers as too risky.

DC: We need to distinguish between North America, Europe and Asia. North America has plenty of oil, natural gas, wind and solar resource, for example, whereas Europe has much less of these, with the exception of offshore wind and strong solar resource in the south. So, while it may want to diversify away from Russian energy, Europe doesn't have many options to replace it in the short-term. And if it does eventually double down on decarbonization for security reasons, it's going to be very expensive.

What can be done, if anything, to speed up or smooth the transition from here?

MG: One of the biggest problems that needs to be solved for is the lack of capital being directed towards the transition. Many of the technologies and innovations that are needed to make this work require long-duration commitments from investors. But there has been very little interest in deploying capital towards energy and energy infrastructure, whether it's wind and solar or oil and gas, and returns for energy companies have been terrible across the board in relation to low-capital intensity investments synonymous with Big Tech – at least until recently.

Moreover, while there's been a groundswell of interest in environmental, social and governance (ESG) investing since the pandemic began, let's not forget ESG was laughed out of the room for 20 years before that and that it may be falling out of favour again now that interest rates are climbing and putting downward pressure on longer-duration investments. Instead of investing in a lithium mine, which won't come online for five to seven years, for instance, many investors are more inclined to put their money into a stock that can provide an immediate return, including one of dozens of oil and gas companies who are not incentivized to reinvest their capital into transition-related projects that can help reduce their emissions, but are encouraged to buy back shares and pay out dividends. Why? Because pension funds need the cash flow and investors want the cash flow. They want a return on capital. They don't want deployment of capital in long-horizon projects.



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SB: In fairness, some investors might be uncomfortable having an oil and gas company reinvest their capital into renewables or some other type of transition-related project because that's not its expertise. But it doesn't help the transition if many of these same investors are unwilling to re-invest their cash flow into longer-horizon projects. That's what is needed, but the ability to divert capital to quick return, low capital, highly scalable businesses has drawn funds away from this goal and we are probably a decade behind where we could or should be otherwise.

MG: A good example of that is the latest quarterly results from one of the biggest lithium providers, whose stock went down, in part because they announced an increase in capital spending. That's exactly what it should be doing, but, still, it gets punished.

JK: Remember IMO 2020, the rule limiting sulphur in fuel? Companies had several years to prepare for it, but many didn't make expenditures until the very last few months before implementation. Even then, they threw up their arms asking for more time all because investors generally don't want to spend today for something that won't happen or pay off until years from now. It's a hurdle that needs to be cleared if we want the transition to lower carbon to work, but that may require more regulation or need to be driven by consumers. If they truly demand it and start to really put their investment dollars towards that goal, there's a much better chance of getting this done.

DC: Another way to potentially smooth the transition is to slow it down, not speed it up. The goal is to reach zero carbon, but we know that's going to take years, so why are some countries bypassing lower carbon energy sources in the interim. For instance, why not switch from coal to natural gas until there's a more reliable option that gets us to our end goal? The world burned more coal last year than ever before, according to the International Energy Agency (IEA). How is that possible? There should be no coal power, but in Asia, they're still building new coal plants every year. These could all be replaced with liquified natural gas (LNG) until solar, wind and battery storage grow into more reliable solutions.

DA: The climate risk creates the urgency. If we had 100 years to transition, a gradual approach would make economic sense. But if we don't force the shutdown of fossil fuels, there's too long a tail to the transition.

DC: But it's almost as if we're saying we can't shut down the worst emitting source of power unless we go straight to zero carbon emitting. It shouldn't be an all or nothing situation.



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Beyond capital and potential new regulations, what role does the consumer play in fostering the transition?

SB: It's all about the consumer. And not just because they control the demand side of the energy equation. They also help elect the governments who can regulate the transition and they can also invest in the capital that is required, but the issue is that too few people want to diminish their lifestyle. Until the Western World, in particular, is prepared to do that, we are going to have a gap in our ability to meet existing demand from existing sources, much less offset those from the growth of new, low carbon sources.

MG: The only reprieve we've had in the trend towards higher carbon emissions was during the early part of the pandemic when carbon emissions fell by about 8%, according to the IEA, because of the mass lockdowns that happened. If we were able to maintain that trend, we would probably achieve the goal of keeping global temperature increases at 1.5 degrees Celsius, but most people will never accept that level of change on an ongoing basis. In fact, we're already back to an emissions trajectory that is far above where we were in 2020.

SB: Look at miles travelled by car in the last year. It's way up, according to the U.S. Federal Highway Administration. And it's not being done in electric cars. The most sold vehicle in North America is the Ford F150, according to Edmunds, the online car guide. The average consumer may tell you that they vote for carbon capture, but they don't live for carbon capture.

LN: What should have happened in response to the Ukraine crisis is a reduction in consumption. That is what makes sense when 10% of the global supply of oil is at risk. Instead, the response we have seen thus far has been to support consumption through subsidies and tax relief. Leading up to the current crisis, we have put pressure on energy companies to lower their carbon footprint by divesting or producing less. This has not been met with an equal encouragement to consume less or the adequate provision of alternatives. This mismatch between supply and demand has contributed to where we are today.

MG: The best way to get consumers to use less energy is by pricing carbon more effectively. Environmental economists have been saying this for years. The cost of energy needs to become more expensive for us to use it more conscientiously. But that's not what gets politicians elected and that's not what people want – at least when they think about their daily lives. And therein lies the friction. It shouldn't constantly be "where's the next source of energy coming from?" Instead, it should be, "how do we use less of it?"

SB: That's the nail on the head. The best thing for low-carbon sources of energy is US\$120 to US\$150 per barrel oil prices. But let's have the energy companies make money from those higher prices and pay it back to investors through dividends, who can re-invest it in companies that understand the renewable market and invest in it appropriately. The oil and gas energy companies will become smaller over time, but without that price pressure, you can't justify the capital expenditure required to make decarbonization work.



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To that end, what are some of the ways that investors can “play” the transition?

SB: For someone interested in a broad-based real assets strategy that can invest across the energy spectrum, “barbelling” may be a good approach to take right now. Many oil and gas companies have clued into the fact that they won’t be paid to extend their reserve life, so the capital is coming back to investors in the form of solid cash returns. Then, on the other end of the barbell, those returns can be re-invested in some of the longer-duration opportunities we’ve talked about, including renewables like wind farms and utilities that harness this type of power.

DC: Adding to that, the short-term outlook for traditional oil and gas stocks looks good for many of the reasons mentioned earlier, including, most importantly, the current shortage of supply. But if we’re talking about the clean energy side, one option is to invest in the attractively valued names that already have operating projects that generate cash flows. Moreover, this could include some of the world’s biggest oil and gas producers, many of which are investing heavily in carbon capture projects and are working on all kinds of renewable fuels

MG: Alternatively, if an investor is more interested in a strategy that is specifically geared to creating a more sustainable future without exposure to fossil fuels, it’s important that long duration assets – which are the key to the transition – are not simply dismissed because of the challenging interest rate environment today. For instance, hydrogen companies may not provide much in the way of free cash flow in the near-term, but the technology has strong regulatory support and seems well set up to be profitable longer-term for those who are patient. Beyond that, it may be appropriate to invest in different parts of a company’s capital structure to mitigate some of the short-term risk of higher rates. This means owning the debt of a company you like rather than the equity, which can often be more volatile in these conditions. Either way, the point is to commit capital to the companies and themes that will give us the greatest chance realizing the long-term goal of decarbonization. And let’s not forget how market cycles work. While traditional oil and gas stocks are benefiting today and “green” stocks are out of favour, that will no doubt change over time. In fact, given how poorly some of the latter have performed over the past year, now may be as good a time as any to put money to work in them.



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Martin Grosskopf manages AGF's sustainable investing strategies and provides input on sustainability and environmental, social and governance (ESG) issues across the AGF investment teams. He is a thought leader and a frequent public speaker on ESG and Green Finance issues. He serves as Vice-Chair of the CSA Group technical committee on Green and Transition Finance and is a past member of the Responsible Investment Association (RIA)'s Board of Directors.

Martin has more than 20 years of experience in financial and environmental analysis. He previously served as Director, Sustainability Research and Portfolio Manager with Acuity Investment Management Inc., which was acquired by AGF Management Ltd. in 2011. Before joining the financial industry, Martin worked in a diverse range of industries in the areas of environmental management, assessment and mitigation. He was a project manager with CSA International from 1997 to 2000 and, prior to that, served as an environmental scientist with Acres International Limited.

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He joined AGF in 2013 with more than 20 years of buy- and sell-side experience covering the global materials industry, including five years of institutional money management. Prior to joining AGF, Steve was Managing Director and Mining Analyst at a major financial institution, responsible for global company research coverage and equity market analysis. Prior to that, he was an analyst and portfolio manager at two leading asset management firms.

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