A cross-cutting energy transition





Decarbonisation efforts are creating infrastructure opportunities across a range of sectors, say CVC DIF's Vincent Liu and Ryan Gow

North America has surged ahead in the race for energy transition investments in recent years, with measures such as the Inflation Reduction Act in the US providing powerful incentives for developers of sustainable infrastructure.

While renewable energy often captures the headlines, Vincent Liu, co-head of CVC DIF's North America practice, and Ryan Gow, a senior investment director at the firm, highlight that the opportunities are much broader. The push to decarbonise is an imperative across multiple different sectors - and they believe North America is well-positioned to attract even greater volumes of investment.

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Why is the energy transition so important for infrastructure investors in North America?

Ryan Gow: Energy transition is a theme that cuts across all the sectors that we focus on in North America. Electricity generation and storage receive a lot of attention, but we think about the transition more broadly. We think about the transition from a distribution perspective; that can mean the distribution of renewable electricity to cold storage facilities, ports, terminals and hyperscale data centres, but also the distribution of sustainable energy, such as renewable natural gas for industrial use. There's a big role for transport and logistics in the energy transition story.

Vincent Liu: It's important that we fundamentally change the way we generate, transport and use energy. That should be a priority and it's an important driver for investments in the space.

The energy transition offers a very rich set of opportunities in North America. It's probably the largest market within our global network, as it touches so many subsectors. There's significant growth potential, given the

structural and regulatory tailwinds and the prolific demand for clean, sustainable energy from both governments and corporates.

What are some of the most attractive opportunities?

VL: According to the US Environmental Protection Agency, electricity demand in the US will increase by about 10 percent between now and 2030. And according to the US Energy Information Administration, by 2032, about 45 percent of the total generation mix will be from renewables. That creates a massive opportunity set for both mid-market and large cap investors. We are focusing on mid-market deals, which offer superior risk adjusted returns compared to large-cap opportunities.

BluEarth, our utility-scale wind, solar and hydro platform in North America, and Green Street Power Partners (GSPP), our community solar and distributed solar platform, are very well-positioned to capture this demand growth in a complementary way.

With GSPP, we've spent a lot of time in community solar and distributed generation - the idea of this is to generate energy closer to demand centres, so you bypass transmission bottlenecks and shorten development cycles. Community solar capacity is expected to double in the next five vears. GSPP has roughly 300MW of operating projects in over 10 states. We feel very confident about continuing to achieve great results for our investors in this segment.

RG: We've also spent a lot of time on the energy consumption side. Producing energy in a clean and sustainable way needs to go alongside improving the efficiency of energy use. We've

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RYAN GOW

Are there any emerging technologies that you expect to gain traction in North American infrastructure?

VL: We've invested in Diverso, a company in Canada that develops ground source heat pumps for multi-unit residential and commercial buildings. It benefits from a local supportive regulatory framework, particularly the Toronto Green Standard, which effectively prohibits natural gas connections into most new residential projects. Ground source heat pump technology really helps to reduce the electrical burden of a project on the demand for grid electricity. It's certainly one of the leading technologies being considered by all residential and commercial real estate developers in the city.

The contractual framework that we operate under is a long-term Energy-as-a-Service agreement. These contracts are 25-35 years in length.

> By installing, financing, owning and managing the project, we have a portfolio of long-term contracts that are inflation protected and

> > resilient across economic cycles. It really provides core infrastructure characteristics for the business. The growth potential is significant, not just in the Toronto area, but in many other major metropolitan centres across North America that are considering similar decarbonisation initiatives for multi-unit residential and commercial buildings.

invested in Bernhard, a company that provides Energy-as-a-Service healthcare and higher-education institutions in the US. They develop energy efficiency solutions that reduce and manage the consumption of energy over the long term. A lot of parties are extremely interested in this approach, so it's a sector with tremendous tailwinds.

More broadly, transportation and logistics account for approximately a quarter of greenhouse gas emissions today and freight demand is forecasted to double by 2050. There's an increasing focus within the transportation sector on reducing energy consumption, and ensuring the infrastructure across ports, terminals and rail are able to accommodate electrification.

How significant have policy support measures been in attracting infrastructure

investment towards North America?

VL: The policy support has been very effective. Measures like the IRA in the US and similarly supportive regulatory frameworks in Canada, which provide financial incentives and tax credits, have positioned North America as a leader in the global energy transition.

That's created an ecosystem where international collaboration occurs. In the US today, you see many international developers, engineering, procurement and construction contractors and equipment suppliers all actively contributing to the market. That knowledge sharing is incredibly important for advancing the renewable energy industry. The innovation that's needed to push the industry forward is supporting economic growth, it's creating 'green jobs', and it's reinforcing federal, state and local level commitments to sustainable development.

How do you weigh in possible changes to the policy environment?

VL: The IRA is creating benefits that are very much recognised across the political spectrum. The positive impacts are being felt in both red states and blue states, which should help to give the IRA longevity across governance cycles and economic cycles. The fundamental incentives for driving some of this energy transition projects are not going away. Of course, you can never be certain about the future, but we can be confident that the broad aims of the IRA are part of the political consensus in the US.

RG: There are a variety of policy initiatives around building North American infrastructure. Some policies may evolve or change in the near term, but the long-term trends remain very supportive for investment in North American mid-market infrastructure.

When we think of policy and regulation around North American

infrastructure investments in general, one of the other important factors is the drive for nearshoring. It's still very much front of mind that supply chain resiliency needs to be more robust across a number of sectors. And with that comes mid-market investment opportunities that infrastructure funds like ourselves are focused on.

Are there any types of investments managers should avoid because they are more dependent on subsidies or incentives?

VL: We've been very cautious about, for example, making an investment in the EV charging space in the US. There's some speculation that the EV-related elements of the IRA might be more subject to change.

We've also been very cautious on making investments in the hydrogen and carbon capture subsectors. There are very interesting and significant energy transition and decarbonisation aspects to both of those subsectors, but the opportunities that we've seen today have probably come too early for infrastructure investors within our mandates. There's still ongoing technology innovation that needs to

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VINCENT LIU

progress, as well as questions about the fundamental commercial rationale for some of those projects.

What are some of the other key challenges at present?

RG: In the transport and logistics sector, the decision to invest in energy transition initiatives comes down to the cost and the reliability of the technology. Transportation and logistics are primarily focused on uptime, ensuring availability and ensuring that goods and people are moved efficiently and on time.

Using electrification as an example, you have to give consideration, particularly in North America, to different climate conditions and the reliability associated with batteries in both extreme heat and extreme cold.

VL: If you talk to most investors, one of the challenges that will often come up is the regulatory and permitting frameworks for large scale projects. These have caused delays and increased the financial burden for developers. In an inflationary environment, if you extend the project development timeline, you increase the cost of the project. Reform of the regulatory permitting framework in the US can really help accelerate the increased adoption and development of these projects.

It's important that relatively 'granular' factors impacting the energy transition, both direct and indirect, across sub-sectors are taken into account when assessing investment opportunities across North America. Factors such as, regulation, technology, market mechanisms and public sector investment are critically intertwined; and a key focus for private capital investing in mid-market North American infrastructure. The tailwinds are evident, and investors such as ourselves are committed to supporting the energy transition with private capital for its long-term success.