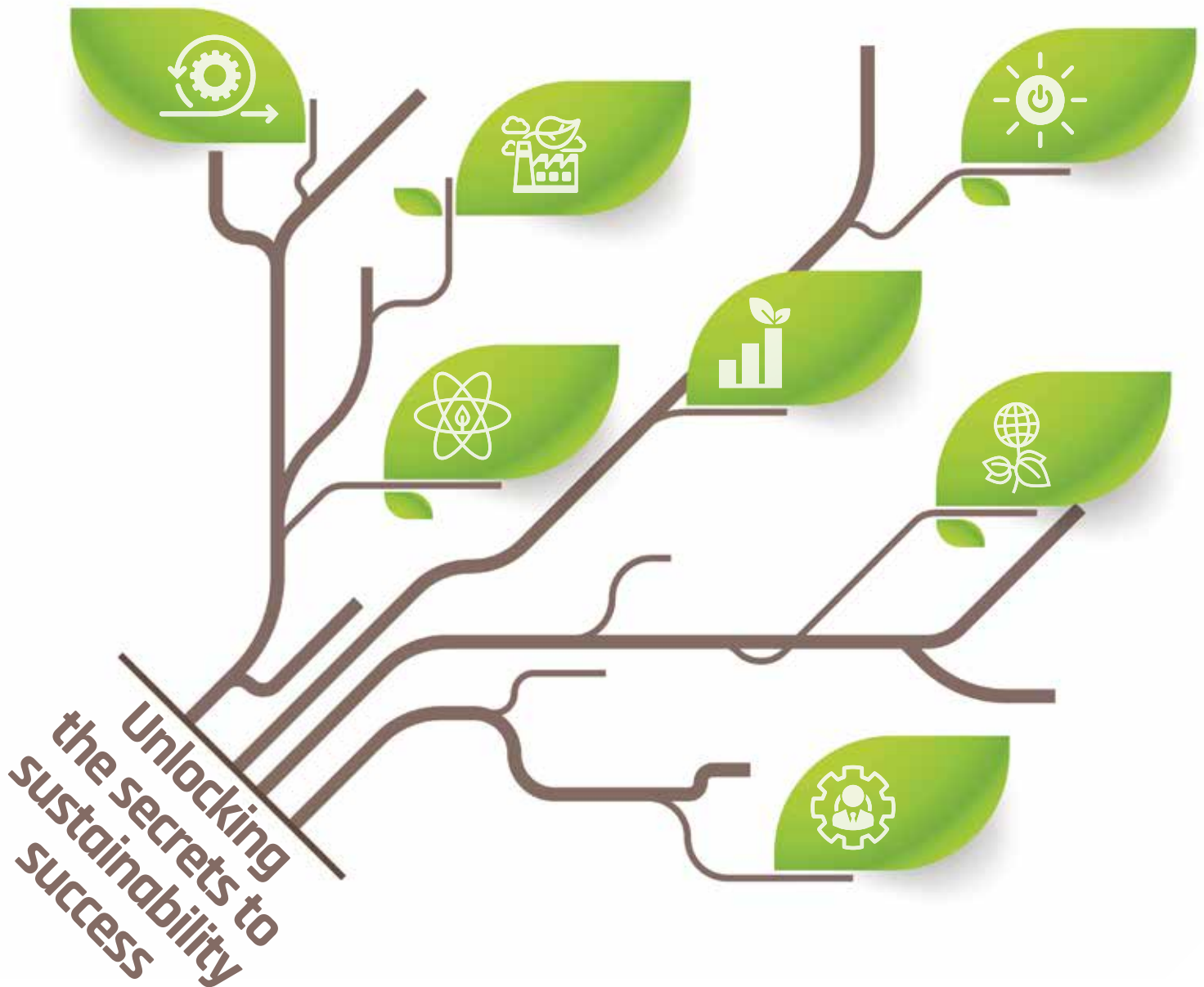


Sustainable Investing

November 2023 • infrastructureinvestor.com



KEYNOTE INTERVIEW

Climate-proofing the future



Opportunities around the energy transition and digital economies are starting to converge, say Ares Management's [Andrew Pike](#) and [Keith Derman](#)

Social and political backing for net-zero goals is no doubt increasing appetite for climate infrastructure. Last year's historic signing of the Inflation Reduction Act in the US could prove to be a turning point for the industry and has already redirected billions of dollars to domestic green technologies.

The urgent need to accelerate investment in climate-resilient infrastructure is also clearly there, argue Andrew Pike and Keith Derman, both partners and co-heads of infrastructure opportunities at Ares Management. This summer alone, global temperatures reached record highs and could become the norm without direct, purposeful action. Pike and Derman explain why sustainable infrastructure

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is such a wide investment canvas and why the digital asset class should not be overlooked.

Q How is the macroeconomic backdrop influencing the attractiveness of renewable assets and platforms?

Andrew Pike: Many industries have felt growing macroeconomic pressures this year and struggled to pass along cost increases, but climate infrastructure is differentiated in that the sector is benefiting from tremendous

momentum. Effectively, the industry is in a super cycle, perhaps even a grand super cycle. The commitment to climate is in many ways overriding many of the broader macro headwinds.

To this end, there is such high demand on the buyer side, driven by consumer and corporate preference, that cost increases and margin erosion is being mitigated. Unlike many other sectors, inflationary costs for climate infrastructure have mostly been passed onto the consumer.

Keith Derman: What is fascinating about the commodity price increase is that as inflationary pressures have hit construction costs, we have seen offtake revenue increase at a faster rate than

input cost. There is a nice marriage between the two, which demonstrates the downside inflationary protection that climate infrastructure offers.

The last few years have also shown the importance of experience. A typical wind project today costs around 40-50 percent more than it did pre-pandemic. Those operators that signed PPAs six to 12 months before they originally thought they would start construction have been hit hard by the downturn.

At Ares, we have a mantra about synchronisation of contracts and not entering into long-term fixed-price revenue agreements until we truly know the cost of construction. Those that have only been in the sector for five to 10 years would not have had the experience of previous waves of commodity price escalation and rising interest rates to draw from.

Q How does the importance of resiliency factor into appetite for climate infrastructure?

AP: We see the power ecosystem for the foreseeable future as a combination and complement of renewables and thermal assets. When you look at Texas, for example, particularly in August, there were days when the intermittency of renewables was not able to meet peak demand and thermal power plants had to play an integral role.

On the flipside, there were many days in July when renewables helped dampen overall power prices. The two can work well together. As an investor, it is about understanding how power markets work and what congestion risk looks like. We cannot move to 100 percent renewables and clean energy tomorrow, although that is the ultimate goal. The reality is that it is going to take time.

KD: One of our fundamental strengths as a sponsor is that our strategy's leadership team all come from a traditional or conventional thermal industry background. If you think about the

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energy transition, it is going to be a multi-decade investment opportunity and require structural change of our energy systems.

Essentially, we are going to build an entire new set of infrastructure right on top of the old one. If you try to do that without understanding how the traditional system works, how policy fits in and what the regulatory environment looks like, it is going to be a lot harder to be successful. We pride ourselves on our legacy capabilities and experiences.

Q How dependent is the energy transition on the IRA?

AP: The IRA is an incredible piece of legislation. In many ways, it is the policy for which the industry has been waiting years. If nothing else, the duration of the tax credit regime being extended until there is much greater decarbonisation will make a big difference.

Wind and solar have already benefited from incredible cost declines, even on an unsubsidised basis. Today, they are the cheapest forms of power generation, but they are intermittent and are not the only decarbonisation tool. Importantly, the IRA will help boost investment in other aspects of the energy transition.

Government support for carbon capture and green hydrogen is very significant. The legislation will really accelerate the pace of investment in these two important areas.

The industry is also still trying to figure out how we can execute on the transferability of key tax credits. We are getting close, but it is very important for breaking the logjam that exists around the availability of tax equity relative to the volume of projects that are trying to reach construction. Without the IRA, the energy transition would hardly disappear, but it would certainly take much longer.

KD: We have seen more business plans and capital raises around domestic manufacturing in the last 12

Analysis

months than possibly the previous 10 to 15 years combined. The onshoring incentives are so significant that even if there is a change next year in the White House, we believe the Republicans will most likely keep the IRA in place.

Obviously, it was politically contentious, but the investment opportunities and capital flows have probably gone more to Republican states than anywhere else. That is likely going to make it stickier, and onshoring is a huge component of that.

Q From a niche industry, how are PPAs today influencing the energy transition?

AP: I always think about PPAs as a perfect complement to unlocking deal potential, driving down borrowing costs and reducing risk. At the same time, they are not always critical to a transaction, and it can be a mistake to think that all PPAs are created equal or that longer timeframes are necessarily better. Flexibility can be equally important to create value.

KD: PPAs can be an incredibly important part of the financing puzzle. They have been very impactful in the power sector in bringing down the price of capital because of the certainty of cash-flows. We have also seen some poorly negotiated contracts over the years, particularly in wind.

Today, we are starting to see some momentum away from PPAs for wind and solar. That creates challenges, especially if you want to access tax equity.

If you think about green hydrogen, you need a revenue agreement because while there is going to be a modest green premium that hard-to-abate sectors will pay, if your merchant risk starts to suffer you are not going to be able to attract financing; your revenue profile is going to become too volatile.

Considering that reality, there are certain sectors that are going to need PPAs, and as those sectors mature,



Case study: Green hydrogen in Texas

Synergies in Ares' wider portfolio will help drive the project

KD: The proposed Avante Green Fuels project in western Texas is a green hydrogen venture currently in the development stage. We have been thinking about ways to further the energy transition and achieve deep decarbonisation, in addition to unlocking value at strong but stranded or constrained wind and solar resources.

We have had in place a memorandum of understanding with the Port of Corpus Christi to help drive their sustainability initiatives with the potential for producing green hydrogen, and then two years ago acquired a controlling interest in one of the largest independent renewables developers in the US, Apex Clean Energy.

Separately, a portfolio company of Ares Private Equity Group funds – Epic Midstream – owns a series of recently constructed pipelines stretching from the Permian basin to the Port of Corpus Christi. These pipelines sit very close to many of Apex's development projects.

Through a number of strategic discussions, we identified the potential opportunity to bring green hydrogen down to the Gulf Coast and are in the process of embarking on a collaborative project to pursue a vertically integrated green hydrogen business. This is a great demonstration of the power of the Ares platform.

The project is currently undergoing a FEED study, addressing the EPIC value-chain and in discussions with potential offtake counterparties, including whether that hydrogen could ultimately be converted into a derivative product such as green ammonia, green methanol or other high demand fuel products.

Our ultimate goal is to build out about 5-7GW of renewables, which would result in around 300,000-400,000 tonnes of green hydrogen being produced each year and delivered to the Texas Gulf Coast along a new hydrogen pipeline. Today, the Port's customers are using about three times that volume of grey hydrogen, so we know that the demand already exists. The Texas Gulf Coast region represents the highest incumbent demand for hydrogen.

investors can think more about whether they need that certainty.

Q Is there too much capital chasing climate infrastructure today?

KD: In 2022, almost \$700 billion of global investment flowed into the energy transition. That is around 70 per cent of the leveraged buyout market, which is a good start, but relative to what we need from a societal perspective we are still trillions of dollars short.

If we are going to get to net zero, that will require something like \$3 trillion over the next six or seven years, and then another \$5 trillion in the next decade. Right now, there is just not enough capital in the industry, and we feel the climate infrastructure market has space for more players.

AP: The energy transition is about building assets, and as Keith highlights, the need far exceeds the supply. As a builder of assets and companies, we benefit from having a large team that allows us to be very active and hands on. This earlier lifecycle involvement is what differentiates us while most others are focused on the buy side of operating assets or fully scaled businesses.

But again, if you look at the scale of the market need in terms of new build as well as long-term ownership, the sector remains very undercapitalised.

Q Why is a climate investor such as yourself investing in digital?

KD: There is remarkable convergence taking place between the green energy and digital sectors, particularly around data centres. If you think about the world we live in today, and how much we rely on the cloud, that all requires huge amounts of computing power and storage, which in turn drives increases in electricity demand.

There is also a growing consideration of the carbon footprint. The largest technology companies are highly progressive and committed to

sustainability and setting net-zero targets. When they build or lease new data centres today, they are looking to sign PPAs for wind or solar, so these firms have become the biggest buyers of renewable power. The technology companies are on both sides of the trade and that is the convergence we are following and the industry trend we are most excited about.

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ANDREW PIKE

AP: The energy transition has really grown into a much broader theme than just renewables. We call what we do climate infrastructure because it goes well beyond just renewable energy, beyond generating and storing green electrons. It is about creating the green economy and thinking about what permeates our daily lives, whether that is advanced recycling, renewable natural gas or how to decarbonise digital infrastructure.

We have probably made more headlines so far for what we have achieved in wind and solar, but we are investing dollars across a very wide range of climate infrastructure. This is about addressing some really important environmental needs and challenges. Our mission is to invest as widely as possible while producing the high returns that investors expect.

Q That is key. How can you be successful investing in climate infrastructure?

KD: Flexibility of capital is important. You can think of our capital deployment a bit like a three-dimensional X, Y, Z axis. We pivot between assets and companies. With some investments, we are direct owners of projects and the steel in the ground while other times we focus on companies and platform businesses.

We are also flexible about where in the lifecycle of those assets and companies we invest. We can acquire large and mature companies, but also capitalise and start new businesses. The same goes for assets: we are very active across development, construction and operations.

And finally, flexibility in the capital stack means we can bring bespoke solutions and hybrid capital structures to businesses and projects. All of this flexibility means we can dial up or down the risk. The expanding net of climate infrastructure opportunities allows us to take a number of different paths, creating many avenues for success in this space. ■