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A timely boost for energy

With uncertainty over future tax incentives now finally removed, three experts tell Amy Carroll that the US renewable energy industry is in an ebullient mood

he Inflation Reduction Act, which passed into law in August, marks a pivotal moment in the US's chequered fight against climate change and promises to unleash widespread infrastructure investment opportunities across the board.

Coming hot on the heels of the Infrastructure Investment and Jobs Act, passed last year, which allocated \$1.2 trillion in spending over five years, with money reserved for building a clean and resilient electricity transmission system, this latest legislation provides much needed clarity on \$370 billion of renewable energy incentives.

Action spurred by these incentives is expected to reduce emissions by 40 percent on 2005 levels by 2030. Initiatives span wind, solar, hydrogen and battery storage, amid a range of other low-carbon energy sources, as well as the nascent carbon capture and sequestration industry.

"This is a landmark piece of legislation that opens up a number of avenues of opportunity and, most importantly, gives some durability to federal policy support, which the industry was anxious to see," says Keith Derman, partner and co-head of Ares Infrastructure Opportunities, speaking at Infrastructure Investor's recent North America roundtable discussion.

Indeed, the US renewables industry has been dogged by uncertainty over the future of its investment tax credit (ITC) scheme for many years. "It predates the financial crisis," says Derman.

"Back then, there wasn't the same

Money allocated for infrastructure spending by the 2021 Jobs Act

Money allocated for renewable energy by the Inflation Reduction Act



Jennifer GandinPrincipal, CIM Group

Jennifer Gandin is actively involved in the investment management process across CIM's platforms and serves on the investment committee. She also represents CIM on the boards of SkyPower Global, Ecoppia and IENTC Telecomunicaciones. Gandin previously worked for a number of other private equity houses.

Keith DermanPartner and co-head, Ares Infrastructure Opportunities

Keith Derman oversees all aspects of strategy, origination, capital deployment and portfolio management for Ares Infrastructure Opportunities. Derman joined Ares Management in 2015 when the firm acquired Energy Investors Funds, where he was a partner. He was previously a manager of corporate development at PSEG Power and a senior financial analyst in the acquisition and development group at Sunterra Corporation. He began his career at Smith Barney, in the M&A department.



Francisco Abularach

Senior partner, Antin Infrastructure Partners

Francisco Abularach joined Antin in 2021 and is a member of the firm's investment committee. He previously spent 25 years at Citigroup, where he spearheaded the establishment of the bank's infrastructure practice and served as global co-head. He has significant experience across the energy and environment, transportation, telecommunications and social sectors.



awareness of climate concerns, and renewables were not as cost-competitive as they are today, so the policy fight was similar, but the public awareness and support was not what it is today. Having this certainty around how long the incentivisation programme will be in place is incredibly helpful because it isn't something we have ever really had before."

Francisco Abularach, senior partner at Antin Infrastructure Partners, agrees. "The degree to which the ITC was both increased and extended was a welcome surprise. This will be a big benefit for the industry, in particular due to the 10-year runway of certainty which it provides," he explains. "When it comes to the US renewable energy industry, there is no question this new legislation will be a game changer."

Ticking off the wish-list

Market participants are particularly excited about the breadth of technologies that have been embraced by the new law. Jennifer Gandin, principal at CIM Group, is especially pleased that credits have been extended to the realm of biogas. "We expect that will have a meaningful impact on our ability to find financeable projects in that space," she says.

Derman, meanwhile, points to the inclusion of standalone storage, something the infrastructure industry has been campaigning in favour of for years. "That opens up an avenue of additional expansion for a sector that is already growing rapidly. Who would have ever thought more battery storage would be going into service than natural gas capacity? But we have been there for two years already."

Abularach adds: "The fact that carbon capture and green hydrogen are eligible for 'direct pay' is also a positive for the energy transition that the US is embarking upon and will provide important support for those two emerging technologies."

Meanwhile, President Joe Biden's

"Existing gas assets that are uncontracted or have open positions are living their best lives right now and enjoying power prices not seen since before the shale revolution and the financial crisis. But don't forget that this dynamic is an even bigger positive for operating renewables"

KEITH DERMAN Ares Infrastructure Opportunities decision to use the Defense Production Act to give the Department of Energy greater leeway to increase production of clean energy technologies is also being met with approval.

"Encouraging domestic manufacturing is certainly a positive," says Derman. "More supply of the components of climate infrastructure is a good thing for capital costs and deployment, as well as jobs and energy security."

Gandin agrees, adding: "If the end product is being produced locally, it reduces some of the supply-chain risk as well."

But, while the double whammy of the Inflation Reduction Act and Jobs Act are clearly being welcomed with

open arms, they remain, of course, imperfect. Gandin, for example, says that transmission remains a significant challenge for the industry and is not yet being addressed with subsidies.

Derman agrees, adding that interconnection queues represent the other perennial problem that places restrictions on growth. "The Inflation Reduction Act is very much an enabling legislation, but it does not address the primary bottlenecks that are stifling even greater deployment," he says.

These challenges do not have easy solutions and are not necessarily matters for the federal government. "They involve co-ordination between multiple agencies and transmission development, in particular, is hampered by permitting problems that are handled on a local basis," Derman says. "But it would be nice to see more focus and creative solutions in these areas."

The reach of the federal government and its legislative powers can only go so far, says Abularach. "To fix these issues, we also need to encourage greater co-ordination between states and a more responsive approach at the local level. These issues don't only relate to the renewables industry, of course. They spill over into other sectors including digital infrastructure and the ongoing fibre roll-out across the nation."

Meanwhile, the roundtable

"The degree to which the ITC was both increased and extended was a welcome surprise. This will be a big benefit for the industry, in particular due to the 10-year runway of certainty which it provides"

FRANCISCO ABULARACH **Antin Infrastructure Partners** participants appear unconcerned about the dominance of tax incentives in the Inflation Reduction Act and the impact on the industry when these are eventually unwound.

"There is a school of thought, notwithstanding the demonstrated enthusiasm for the Inflation Reduction Act, that the renewables sector would be better off without the subsidies," says Derman. "Renewables are already the lowest cost form of generation. Certainly, you could argue that the subsidies create barriers to entry and add unnecessary complexity. We believe there are a number of benefits presented by the act, but if and when tax benefits do expire, the industry will do just fine."

Gandin adds: "When it looked like these subsidies were going to fall off a cliff not all that long ago, the volume of potential projects in the market was still extremely high. The bigger threats we see right now are around anti-dumping tariffs and supply chain disruption rather than any gradual tapering off of tax subsidies at some point down the line."

Navigating macro headwinds

Indeed, the renewables industry is not immune to the maelstrom of macroeconomic and geopolitical challenges facing the world today.

"We are in a period of significant volatility: over two years into a global pandemic; public markets have sold off considerably; interest rates are up; inflation is dramatically up and there are concerns that we are already in or headed for a recession," says Derman.

But Derman is optimistic about the sector's future, nonetheless. "Despite all of that noise, the energy transition is continuing to march on. Indeed, in many respects, all these macro challenges are demonstrating once again just how stable and attractive the climate infrastructure industry really is."

At a more micro level, supply-chain disruption and inflation have naturally required attention but the impacts, Derman says, have been modest and manageable. "We are in an escalating commodity cycle so power prices and PPA prices have gone up significantly, as well as equipment costs. An element of synchronising contract execution is therefore crucial."

Ares typically avoids signing PPAs months - or even years - before it is clear what the cost of the project is going to be, for example. "That comes from decades of working through different cycles, including inflationary environments, and knowing that costs can run away from you," Derman explains. "It is therefore embedded in our ethos that it is crucial to time contracts so that you can match your revenues and expenses."

Gandin, meanwhile, is confident that CIM's portfolio is well placed to flourish in the current environment. "In the near-term, we have a significant portfolio of assets that are construction-ready. All the equipment is secured, while power offtakes have yet to be contracted," she says. "Given that so many projects have been delayed, off-takers don't have many options right now. That means we are well positioned to take advantage of the market."

Gassing up?

The macroeconomic and geopolitical environment is also having some unexpected consequences, including a renewed interest among some institutional investors in the future of natural gas.

"The market is seeing more interest in natural gas assets," says Derman. "There are two things driving that: some of the anti-fossil fuel orthodoxy has dissipated in the wake of the war in Ukraine and, second, power prices are up substantially.

"Existing gas assets that are uncontracted or have open positions are living their best lives right now and enjoying power prices not seen since before the shale revolution and the financial crisis. But don't forget that this dynamic is an even bigger positive for operating renewables, which are not fully contracted as they benefit from the revenue uplift and have no associated fuel cost."

Abularach, meanwhile, is wary about acting on what is likely to be a shortlived revival for gas. "We are long-term investors, so we have to think about how assets are going to evolve during our ownership period and who we are going to sell them to," he says.

"This has been a great year for these assets, but that all turned on a dime due to geopolitical events. In the coming years this dynamic could reverse just as quickly. When you have hold periods of five years and longer, it is risky to bet against strong megatrends like the accelerating transition to a low-carbon economy."

The prevailing megatrends, of course, all point towards an unrelenting march away from coal and gas and towards cleaner and greener sources of power, including burgeoning technologies that could revolutionise the decarbonisation of hard-to-abate sectors. Green hydrogen and carbon capture and sequestration, or CCS, have both been bolstered by federal support contained in the Inflation Reduction Act and Gandin says her firm is already

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JENNIFER GANDIN **CIM Group**

working on two actionable hydrogen opportunities.

"We are excited about the potential for green hydrogen, in part because of the enabling legislation and what it will mean for project mega-trend economics and also because of the role green hydrogen has to play in decarbonising industry and transportation," adds Derman. Ares, for example, is developing a gigawatt-scale hydrogen project in Texas - a partnership comprising the firm and two of its funds' portfolio companies, Apex

Clean Energy and EPIC Pipeline, in conjunction with the Port of Corpus Christi Authority. "We are also monitoring carbon capture and storage but continue to be concerned about costs and technology risk."

Abularach agrees that while both technologies are interesting, there is technology risk involved, as well as risk around what the commercial model and applications will actually be. "Rather than investing in hydrogen and CCS though our flagship and midcap funds, therefore, we are more likely to evaluate such opportunities through our new Next Generation Infrastructure fund instead," he says. "This is a pool of capital intended for the technologies and businesses that we believe will, in time, become the infrastructure of tomorrow."

Beyond the energy transition

Renewable energy is not the only game in town, of course. Digital infrastructure also represents a vast opportunity set in North America, with its own sustainability considerations.

"We started out with data centres and the opportunities there keep coming thick and fast. We have also moved into fibre to support the location of data centres," says Gandin, adding that given CIM Group's focus on green energy, the firm is always looking to reduce the carbon footprint of the data centres it owns, as well as reduce water consumption.

"We have been active in digital infrastructure for years, albeit somewhat under the radar," adds Ares' Derman. "We have deployed long-haul fibre in conjunction with some of our independent transmission projects, for example. And we just closed on a fibreto-the-home investment targeting the digital divide in the western US. Ultimately, digitisation is adding so much electricity demand that the sustainable growth of digital infrastructure is incredibly important, and that is an area where we can bring our climate infrastructure expertise."

In addition to digital infrastructure, meanwhile, Antin's Abularach also points to interesting opportunities in North America's transportation network. He highlights the move away from trucking and towards rail.

"There are advantages in terms of efficiency, as well as a lower carbon footprint," Abularach says. "Rail is also well positioned, given ongoing labour shortages that are particularly acute in the trucking industry. It is a very compelling subsector for us."