Building value that matters

Contents

4 Building value that matters

6 CIP at a glance

8 Our role in the green transition

10 Energy outlook – challenges and opportunities

14 Sustainability and climate impact

18 Ways of working

20 People – our most important asset

22 Our management

24 Building value for our investors

26 Value creation

30 Working for our investors

34 Cases

- 36 Pioneering U.S. offshore wind
- 38 A project to be proud of
- 40 A textbook CIP investment
- 42 The potential in biogas
- 44 A land of renewable opportunities
- 46 On battery power
- 48 A key contributor to the ammonia transition
- 50 Private credit comes to renewables

Building value that matters

For more than ten years, Copenhagen Infrastructure Partners has created attractive global investment products for institutional investors and contributed significantly to the global climate agenda.

We are committed to financing and building the renewable energy infrastructure which is needed to secure a sustainable future for our planet. With our scale, expertise and resources, we are in a position to drive the green transition of the energy sector. By doing so, we are making a substantial difference to one of the largest global challenges – the fight against climate change.

Copenhagen Infrastructure Partners (CIP) was founded in 2012 as an infrastructure fund manager and a green energy contractor. Since then, we have developed into a market leader during a decade where the renewable energy market has grown tremendously, driven by significant technological advancements reducing the cost of green energy. In the same period, our portfolio has grown considerably, delivering solid and risk-adjusted returns for our investors and other stakeholders. Today, CIP has a market-leading portfolio of green energy projects.

Our success is built on an extensive network among the best and the brightest in the industry. This includes our employees, who have honed the strong CIP culture since 2012 with their hard work, diligence, tenacity and determination. And it also includes our trusted and long-standing partnerships across the industry with a long list of best-in-class individuals, companies and organisations.

CIP remains in front of the green energy transition

Despite changing market conditions, the future for business opportunities for greenfield renewables still remains strong. Growth in renewables will accelerate even faster because of a unique combination of factors: cost-competitiveness, which is now the case in all major markets; the need to mitigate climate change and ensure energy security in times of geopolitical turmoil; and the development of supportive industrial policies to secure the economic growth and many jobs generated by the industry. This will make CIP even more relevant and to seize these many opportunities ahead, we are looking to further strengthen our position in the global energy transition – and we have accelerated our activities across geographies and all areas of greenfield renewable energy investments.

We are confident that we have the project pipeline, the fund strategies, the technological, human and financial resources to make a significant and meaningful contribution to the global energy transition and to deliver value for our investors. We target execution certainty and projects completed on budget and to specification. This will allow us to remain in front and reinforce our position as a global leader in greenfield renewable energy investments.

The trust of our investors

We are delighted that many investors have shared our confidence in greenfield renewables over the years and decided to invest alongside CIP in some of the largest clean energy projects across the globe. We are immensely thankful and proud of the trust investors and partners show us – and excited to embark on another decade of value creation for our investors, partners and communities through the CIP's funds' investments in greenfield renewable energy projects.

On behalf of Copenhagen Infrastructure Partners

Jakob Baruël Poulsen,
Christina Grumstrup Sørensen,
Christian Skakkebæk and
Torsten Lodberg Smed

Jakob Baruël Poulsen
Managing Partner

Christina Grumstrup Sørensen
Senior Partner

Christian Skakkebæk
Senior Partner

Torsten Lodberg Smed
Senior Partner

EUR26bn+
under management

150+
investors

As of November 2023

CIP at a glance

Copenhagen Infrastructure Partners was founded in 2012 and has since developed into the world's largest fund manager dedicated to greenfield renewable energy investments and a global leader in offshore wind.

Copenhagen Infrastructure Partners (CIP) has become one of the world's most sought-after investment firms for green energy infrastructure projects. We have gone from having EUR 1 billion under management for a Danish investor, PensionDanmark, in a single fund, to reaching EUR 26 billion under management in November 2023, for more than 150 institutional investors across the globe in 12 funds. In the same period, we have grown from five founders at one office in Copenhagen to over 500 employees at offices in Copenhagen, London, Hamburg, Utrecht, Madrid, Munich, Luxembourg, New York, Tokyo, Singapore, Seoul and Melbourne.

We are a private fund manager and an industry-based energy entrepreneur. The ability to effectively link energy projects and capital is at the heart of our success. With our capacity to combine industrial insight and financial expertise with speed, diligence, efficiency and agility we aim to provide for solid and risk-adjusted returns for our investors and broader society.

We focus on investments in greenfield energy infrastructure projects. By entering early, we get exclusive access to some of the most attractive investment opportunities. We de-risk and structure the projects to create an attractive risk-adjusted return for investors alongside a significant positive impact on the local society and environment.

We have an extensive portfolio of green energy projects, totalling more than 120 GW, with a primary focus on offshore wind, onshore wind, solar PV, energy storage, Power-to-X, Waste-to-X and other renewables.

Our vision for the next decade remains the same – building value that matters. And we have set ourselves the ambitious target of facilitating up to 1% of the global emission reductions required by 2030.

CIP has raised approximately

EUR26bn+

from more than 150 international institutional investors worldwide

CIP has a market leading renewables pipeline of more than

120GW+*

CIP currently manages

12funds

500+

employees in 12 offices around the world

As of November 2023
* Gross capacity

Our role in the green transition

The green energy transition has further accelerated in recent years. Copenhagen Infrastructure Partners' distinct fund strategies tap into the main transition trends – enabling investors to invest in the decarbonisation of both the power and hard-to-abate sectors.

CIP invests in renewable energy infrastructure projects which assist in transitioning the global economy to a net-zero emissions scenario by

2050

Renewable energy technologies have developed significantly in recent years and are now cost competitive in all major markets. In combination with the broader climate agenda and geopolitical demands for energy independence, this is driving exceptional demand for renewable energy infrastructure investments and fuelling the green energy transition globally.

Transition to net-zero economy

Up until recently, the green energy transition was driven by government pledges around the world to reach net-zero greenhouse gas emissions by 2050. All major economies committed to ambitious emissions reduction targets, including investments in clean energy infrastructure, and the private sector joined with pledges to accelerate the transition.

In 2022, this development was further advanced by an immediate need to secure predictable energy supply and at affordable prices. At the same time, renewables continue to become even more cost-competitive than fossil fuels. Consequently, the opportunities to scale-up renewable infrastructure have never been more plentiful and demand for renewables has never been higher. Industrial policies, aimed at securing the substantial economic growth and number of jobs associated with renewable energy infrastructure, have further supported this trend.

Tripling renewable power capacity

Installed renewable energy generation must triple* by 2030 to stay on a 1.5°C pathway towards a net-zero economy. This will be driven by decarbonisation of the power market, electrification of transportation, buildings and industries, and indirect green power demand from the growth of Power-to-X technology or the decarbonisation of hard-to-abate sectors through Power-to-X.

To reach this global deployment of renewables, there must be support in the form of significant upgrades to the electricity grid; the use of flexible sources such as batteries for balancing and Power-to-X; and an expansion of annual investments, particularly in emerging markets and developing economies. Copenhagen Infrastructure Partners (CIP), other industry stakeholders and policymakers will need to address a number of challenges – such as optimising permitting, solving supply chain bottlenecks and overcoming geopolitical issues – to further accelerate the pace of the renewables build-out.

CIP's unique position

All CIP's funds seek to invest in renewable energy infrastructure projects which can assist in transitioning the global economy into a net-zero emissions scenario by 2050. As the world's energy sector continues to develop new technologies and there is significant growth in renewables, CIP will maintain its focus on harnessing these sectoral developments, innovating and investing capital into attractive opportunities which result from the energy transition to net-zero, and thus expanding its offering to investors.

* IEA, Net Zero Roadmap 2023

Energy outlook – challenges and opportunities

Global geopolitics are in flux and markets are struggling to adapt to greater volatility. This changing context, for global investors and developers, is impacting the outlook for renewable energy infrastructure, bringing both challenges and new opportunities.

Installed renewable energy generation must triple by

2030

to stay on course towards limiting temperature rises to

1.5°C

and net-zero

Demand for renewable energy continues to increase, due to a combination of compelling reasons.

It has never been clearer that the world needs to significantly accelerate efforts to fight climate change and reach net-zero by 2050. The recent World Energy Outlook, published by the International Energy Agency, makes very clear that installed renewable energy generation must triple* by 2030 to stay on course towards limiting temperature rises to 1.5°C and net-zero.

At the same time, geopolitical volatility has highlighted many countries' need for energy security, leading to unprecedented goals for build-out of renewable energy in the quest for an increasingly independent energy mix.

A third significant factor is the return of supportive industrial policies. Countries are competing to secure growth and jobs associated with renewable energy, by offering attractive support schemes and regulatory frameworks which are simple to navigate – including the Inflation Reduction Act in the U.S. and the European response, the Net-Zero Industry Act. Other countries are following suit.

"The bottom line remains: renewables are the cheapest way to build-out new power capacity in most markets," says Mads Skovgaard Andersen, Partner and Flagship Funds Lead at Copenhagen Infrastructure Partners (CIP).

"Over the last 10 years, the renewable energy industry has demonstrated that it can provide cost efficient power generation. With the growing scale and improving efficiency of projects, the case for renewables will become even clearer over the coming years."

* IEA, Net Zero Roadmap 2023

Mitigating risks is a competitive advantage

Macroeconomic headwinds are causing challenges for energy infrastructure projects, whether renewable or not. Capital expenditure is going up due to increases in inflation and interest rates, while the supply chain is struggling to keep up with demand.

"Although the overall market has become more complicated to navigate and risks have risen, there is a competitive advantage for those who can mitigate those risks. And we need to keep in mind, that cost increases have been offset by offtake prices that have also gone up significantly," continues Skovgaard Andersen.

In such uncertain times, many suppliers and smaller developers prefer to work with CIP because of its scale, global presence and successful track record. CIP's size as a global fund manager ensures a stronger market position when handling supply chain bottlenecks and procurement challenges. CIP's senior teams have more than 20 years of experience in building these types of assets, managing unforeseen market challenges and the development of complicated, large-scale projects. This is reinforced by an extensive collaboration with trusted network companies and partners.

"In general, we believe that our comparative advantage lies in our unique way of doing project development and in particular risk mitigation," says Skovgaard Andersen. "This allows us to reduce vulnerability to changing market conditions. The focus is on spending limited amounts in development costs before we have certainty on projects, and only advancing those projects which we believe will deliver an attractive return."

Opportunities in uncertainties

Market turbulence is nothing new. Building large-scale renewable energy infrastructure has always been challenging, and this is one of the main reasons why CIP exists: to manage these risks and identify opportunities which arise in such complex times.

CIP's funds are built on a large and diversified portfolio and are less vulnerable to market challenges due to three main factors.

Firstly, CIP has significant optionality thanks to the many projects in the portfolio for each fund, far exceeding the fund size. This means CIP can focus on the best prospects while mitigating risk should there be issues with any one investment. Secondly, CIP's portfolio is deliberately built up to ensure diversification across many global markets, which reduces vulnerability to specific, changing conditions in any one place. Thirdly, CIP has succeeded in diversifying its projects across technologies, with offshore, onshore, solar, transmission, storage and more.

"It's all about optionality and risk management," Skovgaard Andersen explains. "The broad portfolio means we can accelerate a project should market conditions be favourable. And equally, we can opt to divest, halt or slow down development in less advantageous circumstances."

Just as importantly, the project portfolio is specifically developed to seize opportunities in complex market conditions. An example is projects that can prove advantageous because of a lack of grid connections or grid issues. CIP has focused on early-stage projects that have a strong geographic location, where grid access is secured in an otherwise grid restricted market. In other markets, CIP can remedy grid constraints by creating flexibility and balance in power supply, with CIP's battery projects being an example.

At the same time, it is important to remember that unlisted infrastructure investments – not least, in energy infrastructure – have traditionally performed well in periods of geopolitical and macroeconomic volatility. Investors enjoy substantial downside protection, through both power purchasing agreements (PPAs), which lock in revenue for a number of years, and longer-term exposure to renewable energy prices, which will rise along with inflation.

Offshore wind catches up with higher costs

There have been challenges related to offshore wind projects in some markets, particularly the U.S., due to offtake contracts which were concluded prior to the increase in supply and installation costs. In some cases, this has created a discrepancy between revenue and costs, forcing developers to reconsider projects.

CIP's experience, market understanding and substantial focus on de-risking has meant that the offshore wind projects, for example in the Flagship Funds, are progressing according to plan. These are not at significant risk of being discontinued due to cost increases and unattractive revenue contracts.

Offshore wind markets are now adjusting to the changing macroeconomic circumstances, and this reinforces our confidence. Prices are adapting rationally to the recent rise in interest rates, higher commodity prices, strained supply chains, and increased competition in procurement.

The most recent example is the decision by the UK government to increase the maximum price by more than 60% for future offshore wind projects. Another concrete example is CIP's New York Excelsior Wind project, which saw a 26% increase in the nominal weighted average strike price that was awarded to the project through the 25-year power contract for 1.3 GW. And further evidence comes from the recent 2023 auction in Ireland, where the offshore strike prices were 34% higher than the most recent comparable UK auction after adjusting for currency, indexation and tenor.

"Overall, offshore wind remains attractive, based on the fundamental demand in many markets, provided that we as investor and developer remain disciplined and focus on managing exposure and risks," says Skovgaard Andersen.

"CIP's approach to risk mitigation during the development phase has generally proven successful, across technologies. Broken deal costs for the development projects in our Flagship Funds CI I-IV were limited to approximately 0.1-0.4% of the fund size, and we expect to be able to continue this track record."

Sustainability and climate impact

Copenhagen Infrastructure Partners' funds offer access to attractive investments with significant environmental and societal impact.

Copenhagen Infrastructure Partners' (CIP) diversified, multi-fund strategy enables investors to directly contribute to climate change mitigation. It allows them to finance decarbonisation in sectors where net-zero efforts are well underway, such as the power sector, as well as hard-to-abate sectors, such as transportation and industries including agriculture.

As a fund management company and formal signatory to the UN Principles for Responsible Investment (UN PRI) and the UN Global Compact, CIP's approach to sustainability is founded on the strong and consistent link between high environmental, social and governance (ESG) standards and value creation and protection. CIP fund investments are expected to provide significant benefits to society through energy products, avoid GHG emissions, provide critical infrastructure, and aid high-quality job creation.

Dark green funds

In 2021, the EU introduced the EU Sustainable Finance Disclosure Regulation (SFDR), which aims to increase transparency on sustainability risks and impacts by ensuring that fund managers consider and disclose such risks in their investment processes. It forms part of the EU's 'Green Deal', which aims to channel investment towards sustainable activities and assist member states in reaching climate objectives. Under the SFDR, funds are categorised based on their contribution to these sustainable activities. The most sustainable category is an Article 9, a so-called Dark Green fund.

CIP provides investors with direct access to investments in Article 9 Dark Green funds as CIP's funds raised after SFDR came into force are currently considered Dark Green. Copenhagen Infrastructure Fund V (CI V) is expected to be one of the largest Dark Green funds globally.

CIP's climate target

CIP has set its first GHG emissions reduction target which covers CIP's own operations. The scope 1-3 emissions targets are as follows:

Scope 1	Maintain zero scope 1 emissions
Scope 2	Increase annual consumption of renewable electricity from 84% in 2022 to 100% by 2025
Scope 3	Reduce GHG emissions per FTE by 45% by 2030 from 2022 (excluding fund investments)

To support its climate target, CIP has developed a 'CIP Decarbonisation Action Plan' which focuses on three areas: energy consumption at offices, buying new office products, and business travel. Delivering this plan will help CIP accelerate its emission reduction efforts.

Achievements as of 2022

CIP delivers positive societal and environmental impact

~14GW
of energy projects reached final investments decision

~12.1mn
tonnes GHG emissions to be avoided annually

~15.3mn
equivalent households powered

2030 Target impact

~150GW
of clean energy capacity

~150mn
tonnes GHG emissions to be avoided

~70m
equivalent households powered

Regulatory and industry frameworks

CIP is a formal signatory to the UN Principles for Responsible Investment (UN PRI) and the UN Global Compact

CIP Funds are closely aligned with and supported by the EU Sustainable Finance Disclosure

Regulation (SFDR) and the EU Taxonomy

UN Sustainable Development Goals

CIP's objective as a fund manager is to create value for its investors, and high ESG standards are a prerequisite to maximising this value. CIP integrates ESG throughout the investment process and implements ESG at the project level. CIP uses the UN's Sustainable Development Goals (SDGs) framework to measure the impact of our funds under management. Currently, the following key targets guide our efforts:

Relevant SDG	Key target
3 GOOD HEALTH AND WELL-BEING	**Target 3.9** Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.
7 AFFORDABLE AND CLEAN ENERGY	**Target 7.2** Increase substantially the share of renewable energy in the global energy mix.
8 DECENT WORK AND ECONOMIC GROWTH	**Target 8.8** Protect labour rights and promote safe and secure working environments for all.
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	**Target 9.4** Make infrastructure and industries sustainable, with increased resource efficiency and use of clean technology.
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	**Target 12.4** Achieve environmentally sound management of chemicals and all wastes throughout their life cycle and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment.
13 CLIMATE ACTION	**Target 13.3** Improve capacity on climate change management.
14 LIFE BELOW WATER	**Target 14.2** Sustainably manage and protect, and restore marine and coastal ecosystems.
15 LIFE ON LAND	**Target 15.5** Reduce the degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threatened species.

Ways of working

We have a unique way of working together and in delivering our results. The Fundamentals represent our DNA, our way of working, and how we deliver our core product. The Fundamentals are part of why we are where we are today – among the largest fund managers globally within renewable energy.

People – our most important asset

A team of passionate energy visionaries is required to make meaningful contributions to the green energy transition and shape a more sustainable future.

Copenhagen Infrastructure Partners (CIP) has a team of more than 500 professionals with a balanced mix of the critical skills and experience required to invest in, execute and manage large-scale and complex energy infrastructure projects. The team brings strong financial, regulatory, legal and technical skills, and significant experience within M&A, project financing, project development, construction management and operational management.

We put considerable effort into our hiring decisions to ensure we sustain our strong CIP culture. We know that the right people with the right mindset, skills and drive are crucial for the continuing success of driving the green energy transition, as we have done so far.

We favour collaborative, entrepreneurial and dedicated individuals, as these attributes reflect our approach to developing and managing investments with diligence and care. As a team, we are known for our fast decision processes, and we pride ourselves on being flexible, easy to work with and getting things done. This is key in delivering projects on budget, on time and to specification.

Building long-term careers

Over the past 10+ years, we have proven capable of attracting and retaining a dynamic team of new and highly qualified candidates. We have built long-term careers for our employees by investing in them, based on a belief that their success is our success. For example, our Analyst Program allows students to work in CIP during their studies. At any given time, CIP has around 100 analysts, providing us with a solid internal sourcing channel for junior positions across the company as we are highly focused on supporting their transition to full-time employees. We are also strengthening our focus on internal mobility across functions, teams and geographies.

We want to develop the next generation of leaders in renewables, and we nurture inhouse talents from the very start of their careers by providing them with opportunities to continue learning and developing throughout their time with us. Our three-tier in-house development program, CIP Academy, is designed to strengthen our employees' understanding of their assets and development areas to build stronger teams, culture and cooperation.

Inclusive culture and workplace

We believe facilitating an inclusive culture is crucial to accelerating the green energy transition. We know that teams with different perspectives and backgrounds ask more diverse and explorative questions, and make better decisions through a collaborative approach. Bringing such a group of people together, representing different views and backgrounds, means we will be more successful and create more value for our investors.

CIP is committed to creating a diverse and inclusive workplace with high transparency on career opportunities, and where people feel included and are valued for their different perspectives and competencies.

We put extensive effort into building a diverse talent pool and achieve this by sustaining a high focus on diversity, equity and inclusion all the way from talent attraction and throughout the entire employee experience in CIP.

500+

employees in 12 offices around the world

Diverse teams ask more and better questions, collaborate better, and make

better decisions

Our management

The CIP Partner Group includes some 50 people with years of top management experience in the energy sector, plus hands-on experience in M&A, project delivery, financing, and fund structuring and management.

The Partner Group includes about

50

people with top management experience

Copenhagen Infrastructure Partners (CIP) is majority owned by the four Senior Partners: Jakob Baruël Poulsen, Torsten Lodberg Smed, Christina Grumstrup Sørensen and Christian T. Skakkebæk. All four have worked closely together for 15-20 years and each has 15-25 years of experience in the energy infrastructure industry, with a proven track record of delivering major energy infrastructure projects.

The Partner Group includes the Senior Partners and about 45 Partners and Associate Partners, as of November 2023. In combination, they bring extensive expertise to CIP, with top management experience in the energy sector and hands-on background in areas of significant value for the company, including M&A, project delivery and financing, asset management, and fund management.

Members of the Partner Group are renewable market pioneers with a proven track record from some of the world's largest offshore wind projects and other major energy infrastructure projects in Europe, North America and Asia Pacific. They are energy sector specialists with a unique combination of industrial skills, financial structuring and investment experience covering all aspects and phases of energy infrastructure investments, project execution and asset management.

The Partner Group's combined experience has contributed to CIP's recognition as a globally leading energy infrastructure investment fund manager. Their extensive international network of industry relationships across renewable energy and experience with the development, construction and operation of energy assets is a core strength. This enables CIP to enter projects at an earlier stage than most other financial investors, and allows us to obtain project access optionality and greater transaction certainty, and drive a superior risk-return balance for our global investor base.

Jakob Baruël Poulsen
Managing Partner

Christina Grumstrup Sørensen
Senior Partner

Torsten Lodberg Smed
Senior Partner

Christian Skakkebæk
Senior Partner

Bo Foged
Partner, CFO

Mogens Thorninger
Partner

Mads Skovgaard Andersen
Partner

Martin Neubert
Partner

Nikolaj Svane
CHRO

Building value for our investors

Value creation

Copenhagen Infrastructurte Partners creates value for investors by capturing the greenfield premium, and by having a dedicated focus on de-risking as well as leveraging a global presence and a strong network of partner companies.

Track record of

35

greenfield renewable projects

Local execution power ensured through

21

CISC offices worldwide

As of November 2023

Since 2012, Copenhagen Infrastructure Partners (CIP) has created value for investors by acting as an efficient link between energy projects and capital. Through a combination of industrial know-how and a capacity to innovate, CIP ensures the necessary speed, momentum and agility in our many energy projects around the world. And we ensure our investors a solid risk-adjusted return by entering projects at an early stage in their lifecycle, by our continued and diligent de-risking approach and leveraging an extensive global partner network.

Capturing the greenfield premium

A key part of CIP's value creation strategy is the ability to capture the attractive greenfield premium and create de-risked and robust structures with the targeted risk/return profile. We offer exceptional experience and ability among financial investors to deliver some of the largest, most capital-intensive and highly complex greenfield energy infrastructure projects globally. Our strong industry network and expertise allow us to source unique projects and create an extensive portfolio of attractive early- and mid-stage development projects. CIP focuses on investments in greenfield energy infrastructure projects, with entry prior to Financial Close. By entering at an early stage, we get exclusive access to some of the most attractive investment opportunities and are capable of further de-risking and optimising the projects. Further, as greenfield investor, we can typically influence suppliers and the ESG agenda applied to the project.

De-risking focus

De-risking[1] the investments is an essential part of CIP's investment strategy. It is implemented at portfolio and project level through diversification limits, to ensure diversification across technologies and regions. In addition, CIP operates with risk limits, e.g. on financial leverage, energy price and single investment size.

At the project level, CIP focuses significantly on de-risking before making the final investment decision. We choose projects and industrial partners carefully and allocate risks to the party most capable of managing them. Additionally, we reduce project risk through our cautious approach to financial leverage and focus on long-term contracting and merchant risk exposure.

Global set-up – local execution

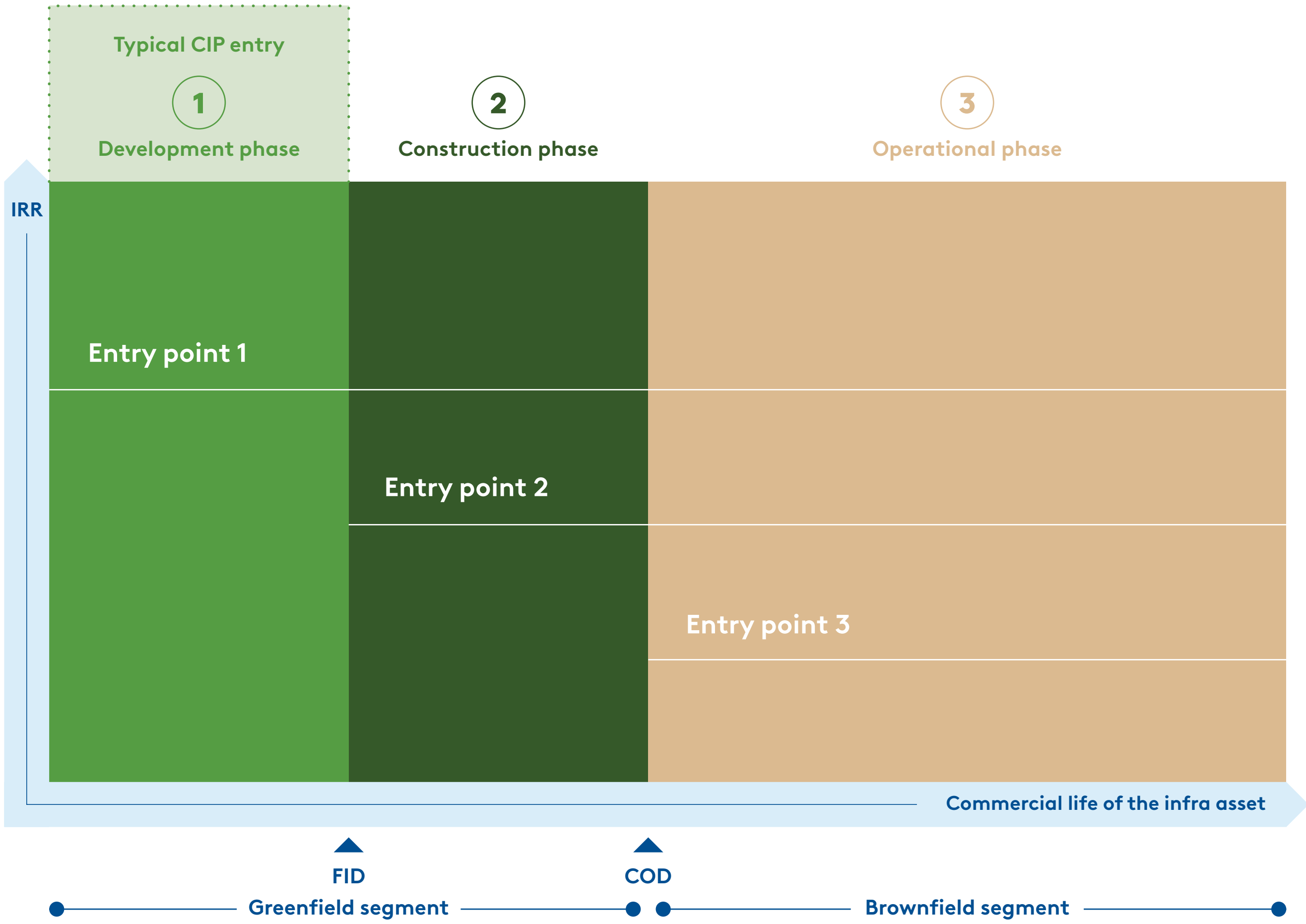
CIP has established extensive international industry connections across the renewable energy sector and developed working relationships across all relevant main geographies with leading industry partners, such as utilities, developers, suppliers and contractors.

These relationships are critical in enabling CIP to enter attractive energy infrastructure investments early. And they have helped us to attract and select highly experienced construction management teams that have allowed us to establish a track record of developing and constructing 35 greenfield renewable projects with high execution certainty.

The scale advantages and strength of the CIP platform are further critical components of our execution power. This is reinforced by our collaboration with Copenhagen Infrastructure Service Company (CISC), a service provider which works exclusively for CIP, assisting our funds in building and operating our portfolio of green energy projects. We also have close relationships with a number of other network companies such as Copenhagen Offshore Partners (COP), Blue Power Partners and PEAK Wind. CISC has 21 offices worldwide with small teams and lean organisations with standardised, scalable and flexible set-ups. These secure a local presence and undertake the primary day-to-day project organisation, interact with contractors and have the ability to implement best practices and exercise local management during the project construction and operating phases.

1) The term "de-risk" or "moderate risk exposure" does not imply that any investment by the Fund will be safe, principal protected, or that an investment in the Fund is a safe investment. Investment in the Fund necessarily involves risk, including a risk of loss of the entire investment.

Estimated unlevered lifetime IRRs at different entry points in energy infra project



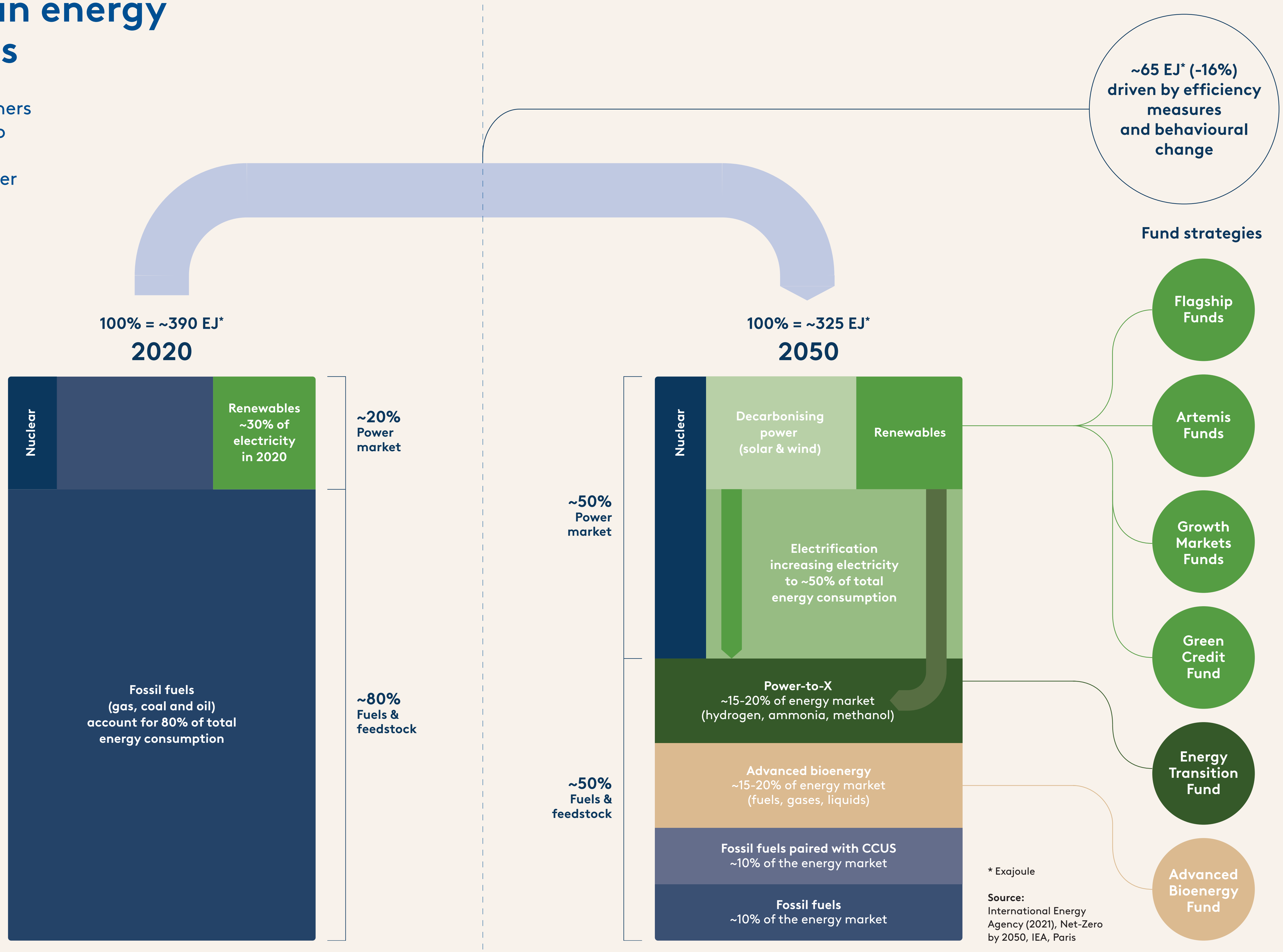
IRR: Internal rate of return

CIP's distinct fund strategies tap into the main energy transition trends

Copenhagen Infrastructure Partners enables investors to contribute to the energy transition through decarbonisation of both the power and hard-to-abate sectors.

Each of the fund strategies for Copenhagen Infrastructure Partners' (CIP) major funds – the Flagship Funds I-V, the Growth Markets Funds (CI GMF I-II), the Green Credit Fund (CI GCF I), the Energy Transition Fund (CI ETF I) and the Advanced Bioenergy Fund (CI ABF I) – tap into the main energy transition trends through a focus on technological development and on integrated renewable energy systems.

Both ABF I and ETF I focus on decarbonising the hard-to-abate sectors (sectors where electrification is not feasible) through the production of green fuels and feedstock to be used for fertilisers, shipping / aviation fuel, and in industries. The Flagship Funds, as well as the GMF I-II and GCF I, focus on decarbonising the power sector through renewable capacity build-out from offshore wind, onshore wind and solar, as well as focus on integration of renewables into the grid through utility-scale storage projects and grid investments.



* Exajoule

Source:
International Energy Agency (2021), Net-Zero by 2050, IEA, Paris

Working for our investors

We act as an efficient link between large-scale greenfield renewable energy infrastructure projects and capital in close dialogue and co-creation with our investors.

All CIP's flagship funds have an expected average net return p.a. over the term of the funds of

10-13%*

* As of 30 June 2023. Past performance is not indicative of future performance.

Attractive risk/return profile and high climate impact

With a blend of attractive financial products and industrial skills to execute large-scale and complex renewable energy projects, we believe Copenhagen Infrastructure Partners (CIP) is one of the world's most sought-after investment firms for green energy infrastructure projects. We are recognised as leaders in building the energy transition sustainably and have a strong track record of ensuring long-term risk-adjusted and solid returns for investors.

A key part of CIP's value creation strategy is the ability to capture the attractive greenfield premium with the targeted risk/return profile. By entering investment projects at an early stage, we get exclusive access to some of the most attractive investment opportunities and can further de-risk and optimise the projects. We believe, we can deliver some of the most attractive, capital-intensive and highly complex greenfield energy infrastructure projects globally.

CIP's funds tap into the most critical energy transition trends. As a greenfield investor, we have significant opportunities to exercise active ownership and influence suppliers and the ESG agenda applied to the project.

Strong relationships built on dialogue

The strategic nature and depth of our relationships with investors built over many years give us privileged access to capital, co-creation of new investment opportunities, and sparring with the leading Limited Partners globally.

We have established long-term relationships with investors who frequently choose to reinvest with us across the CIP fund platform. Many of the investors in CIP's newer funds including the latest flagship vintages – CI IV and CI V – and the new strategies CI ETF I, CI ABF I and CI GCF I are repeat investors from CIP's early funds (CI II, C III, CI NMF I).

CIP continuously invests in building strong relationships with investors and in remaining a relevant and long-term partner. Our Investor Relations team has an ongoing dialogue with investors and strategic partners. Investors receive quarterly detailed and tailor-made reporting about our funds' ongoing financial performance and ESG measures. Twice per year, investors are invited to CIP's global Investor Panel and offered a particularly thorough status of their investments and the state of the global energy markets.

Why invest with CIP

1

Strong risk-adjusted returns by capturing the greenfield premium and a proven and unique industrial value creation approach

2

Strong climate and ESG impact as all CIP fund investments are expected to reduce CO_2 emissions, provide critical infrastructure, and aid high-quality job creation

3

Large seed portfolio greenfield projects owned by the fund prior to fund establishment provide visibility for capital deployment, high execution certainty and fast deployment of capital

4

Global team with local execution model covering approximately 500+ energy infrastructure professionals in CIP across 12 offices, 400+ people in CISC and 800+ people employed on projects

5

Track record with expected net return of 10-13% for CIP's Flagship Funds over fund term and successful project delivery of 35 greenfield renewable investments during the past ten years

Investor and Fundraising team

Copenhagen Infrastructure Partners (CIP) has expanded its Investor Relations & Business Development team significantly to accommodate the interest from investors. Today, CIP's dedicated IR & Business Development team comprises around 45 employees across CIP's regional offices.

Mogens Thorninger
Partner

Member of CIP Management and is overall responsible for investor relations and business development within CIP. He was instrumental in forming CIP in 2012 and acted as fund counsel to all CIP-managed funds until he joined CIP in 2020.

Thomas König
Partner

Responsible for CIP's global distribution teams and focuses on investors in the EMEA region. He joined CIP in 2022. Prior to joining CIP, he held various leadership roles at the global financial institutions Goldman Sachs and Deutsche Bank in London.

Stephanie Brokhattingen
Partner

Responsible for CIPs global fundraising and investor relations platform and covers investors in the Nordic region. She joined CIP in 2014 from McKinsey & Company.

Niels Christian Boehm
Head of APAC Fundraising

Responsible for fundraising in the APAC region. He joined CIP in 2019 and has previously spent 18 years in M&A advisory, including for Morgan Stanley in London.

Daniel Covre
Head of Fundraising, North America

Joined CIP in 2022 and has extensive experience in private market fundraising, client management and international banking.

Moritz Weiss
Head of Fundraising, DACH

Joined CIP in 2022 with two decades of experience in asset management and fundraising.

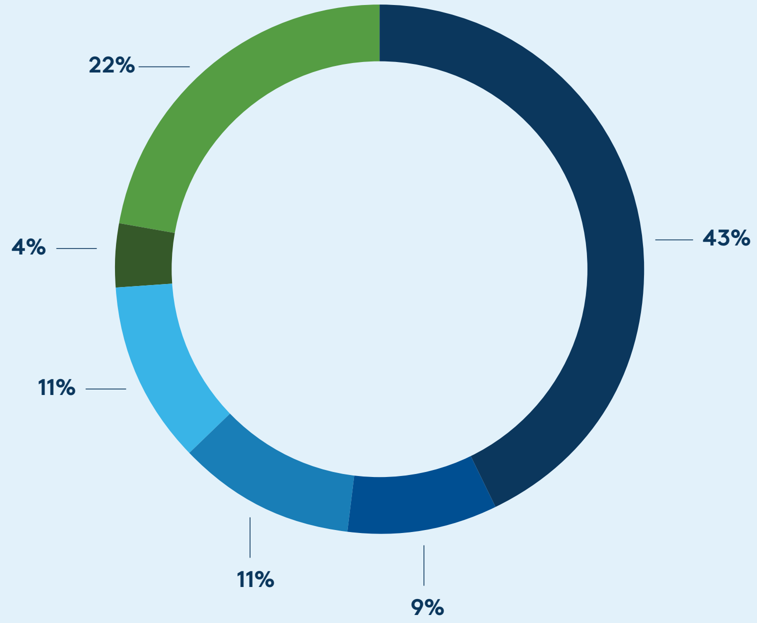
Ross MacLennan
Head of Private Wealth Solutions

Responsible for CIP's Private Wealth Solutions. He joined CIP in 2022. Prior to joining CIP, he held various leadership roles at the global financial institutions Goldman Sachs and Deutsche Bank in London.

Commitments by region and investor type

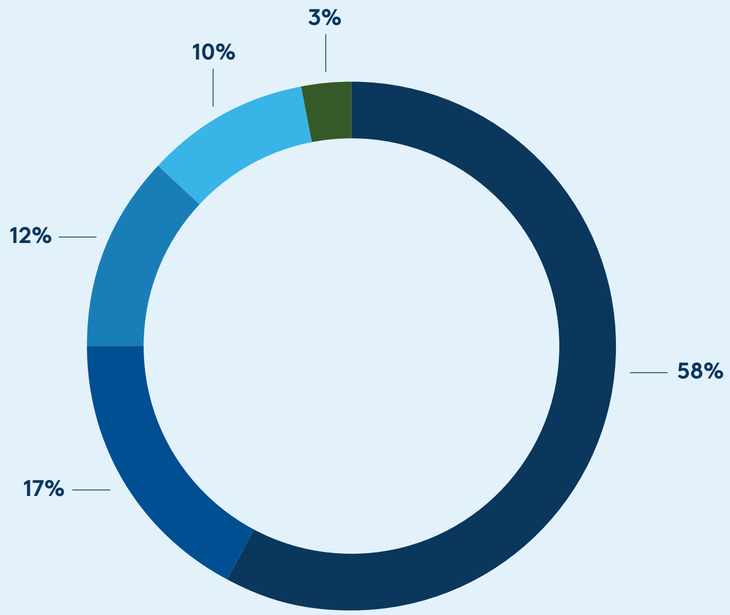
Share of total commitments by investor type

- Pension and Life Insurance
- Insurance Company
- Asset Manager
- Family Office
- SWF and Government Institutions
- Other



Share of total commitments by region

- Nordics
- DACH
- EMEA
- APAC
- North America



As of November 2023

Cases

Across the world CIP is engaged in green energy and infrastructure projects.

Vineyard Wind
Massachusetts, USA
800 MW

Tim Evans
Partner at CIP

Pioneering U.S. offshore wind

Copenhagen Infrastructure Partners is pioneering the build-out of offshore wind in the U.S. with Vineyard Wind 1, the country's first commercial-scale offshore wind project, expected to begin operations in 2024. This puts it in a leading position to develop this potentially huge market further.

Offshore wind in the U.S. is – to use a baseball expression – in the 'first pitch of the first inning'.

The market is at least a decade behind Europe regarding the number of wind farms and the maturity of the local supply chain. But things are about to change with Copenhagen Infrastructure Partners' (CIP) Vineyard Wind 1, 15 miles off the southern coast of Martha's Vineyard, Massachusetts.

Construction on the 800 MW Vineyard Wind 1 started in late 2021, having reached financial close in August 2021 as the first commercial-scale wind farm in the U.S. It produced its first power in Q4 2023 and has an expected commercial operation date in 2024.

"The U.S. can be slow to wake up. But when it ultimately focuses on something – like offshore wind – it can quickly catch up to become a world leader. It's fantastic to work on projects like Vineyard Wind 1 because the offshore industry essentially doesn't exist here yet. We're creating something from scratch," says Tim Evans, CIP Partner in North America.

"There are plenty of challenges to overcome. Everything from financing to construction and operations is a first – banks and suppliers just aren't familiar with it yet. The prize, though, are projects on a scale unlike anything else in U.S. renewables. Today's turbines are more than 250 metres high – the Statue of Liberty is only 90 metres, so that gives you a sense of how enormous they are."

Need for offshore

CIP's investment funds, Copenhagen Infrastructure II K/S (CI II) and Copenhagen Infrastructure III K/S (CI III), together with joint venture partner Avangrid, have successfully developed and secured financing for Vineyard Wind 1.

Vineyard Wind 1 secured a strong and attractive financing package through a combination of equity and senior loans from a consortium of nine leading international and U.S. banks, raising approximately USD 2.4 billion. U.S. tax equity will be introduced in the capital structure during construction and before the first power generation.

As a pioneer in this potentially huge market, targeted to reach 30GW in the U.S. by 2030, CIP is in a strong position to take on other developments also based on its partnership with Copenhagen Offshore Partners (COP) who is leading the development of the Vineyard Wind 1 on behalf of CIP and the project owners. Copenhagen Infrastructure IV K/S (CI IV) is already invested in two other lease areas, nearby Vineyard Wind 1 and with significantly larger capacity.

This reflects the position of the northeast states at the forefront of setting ambitious renewable energy targets. Given the density of their populations, offshore wind is the best way of achieving these goals.

"Energy policy in the U.S. is state-driven, rather than national, and this fragmentation has contributed to the U.S. falling behind in offshore wind development. The good news is that the Biden Administration and the recent Inflation Reduction Act have increased federal support for the sector. It's clear that as renewable goals become more ambitious, the only way to meet them is to go offshore," Evans says.

The leading edge

Naturally, being first also brings challenges. These are the permits to secure, and offshore windfarms are in federal waters, which means dealing with a government which can change every four years. The supply chain in the U.S. for turbine blades and nacelles still needs to be built. States offering a power purchase agreement increasingly insist on these new factories being built in their state.

The global track record of CIP, with 40GW of offshore projects in the works, is essential to show multinational contractors like GE and Siemens the depth of the company's expertise, experience, and long-term commitment to the industry.

In the U.S., the East Coast is just the start. The West Coast, including California, will be next to open up. It requires a different technology with floating turbines in the deeper water of 1,000 metres rather than the 40-60 metres common off the East Coast. There will also be further auctions in the Pacific Northwest, the Gulf of Maine, and eventually the Gulf of Mexico.

"We're in the first-mover position for all these other leases as and when they come up," Evans says. "It's exciting to create a new industry from the bottom up. We are not following the market. We're on the leading edge."

Vineyard Wind 1

Vineyard Wind 1 has a capacity of

800 MW

20-year

power purchase agreements with three local utilities in Massachusetts

CIP will lead through the construction phase; expected start of commercial operations in

2024

Other CIP offshore wind projects in the U.S.

CI IV is 100% owner of lease area 522

Capacity of

3.1 GW

and expected commercial operation date of 2030

CI IV holds lease area 544 in partnership with Highland Holdings

Capacity of

1.9 GW

and expected commercial operation date of 2030

Monegros
Spain
487 MW

Mads Skovgaard Andersen
Partner at CIP

A project to be proud of

Copenhagen Infrastructure Partners used its industry know-how and flexible capital to secure an attractive onshore wind investment opportunity in Spain. In the process, it established a strong partnership with local developer Forestalia and generated follow-on business.

Only a few years ago, Spain was a difficult destination for renewable energy investors. There were retrospective cuts to the feed-in tariffs which had previously been granted to renewable energy assets.

But the team at Copenhagen Infrastructure Partners (CIP) was quick to recognise a shift in the underlying dynamics: with significant reductions in the cost of renewables, the development of large-scale projects in Spain was starting to become a commercially viable proposition.

The right opportunity came in early 2019. The local developer Forestalia was looking for a partner to fund the construction of Monegros, a 375 MW portfolio of onshore wind projects at an advanced stage of development. It was a good match of strengths, including CIP's engineering, procurement and other optimisations. And having done its homework, CIP was one of the few large-scale investors ready to move with a bilateral negotiation.

"We realised that renewables in Spain were already competitive compared to power generated from fossil fuels. Also, there was a strong demand from consumers to secure substantial volumes of green power. This gave us the confidence to proceed with the investment, not relying on state support and contracting the power output during the construction phase," says Mads Skovgaard Andersen, Partner at CIP.

"When we got involved, the project was in an advanced stage of development but not yet ready to build. This was good timing as we could improve the layout, turbine contracting, engineering and procurement. This de-risked the project ahead of the start of the construction phase and improved the return," says Skovgaard Andersen.

Significant value creation

The partnership with Forestalia went so well that in late 2019, CIP expanded the portfolio to include three other nearby wind farms, which took the total installed capacity to almost 500 MW.

Today, the Monegros portfolio consists of 12 operational onshore wind farms in Aragon, Spain, with a total installed capacity of 487 MW. The capital for constructing this portfolio was committed by Copenhagen Infrastructure III (CI III), a EUR 3.5 billion renewable energy infrastructure fund managed by CIP. In total, Monegros produces enough clean power each year to cover the annual electricity consumption of more than 300,000 average Spanish households.

The portfolio benefits from the local Copenhagen Infrastructure Service Company (CISC) office in Madrid overseeing the daily management of the investment and from a long-term power purchase agreement (PPA) with one of the Spanish market's largest and most reputable offtakers, providing revenue security and de-risking cashflow. Once the PPA was in place, CIP optimised the capital structure, with a project finance package of some EUR 380 million provided by a consortium of six Spanish and international banks.

Finally, CIP sold a 49% equity stake in Monegros to financial investor Arjun Infrastructure Partners in a transaction that captured a greenfield premium relative to the capital Copenhagen Infrastructure IV (CI IV) has invested in the project.

"Monegros is a good example of CIP utilising the flexibility of its capital, industry knowledge and relationships to stand out from the competition and secure attractive assets on a bilateral basis. Thanks to our measures to de-risk the investment and enhance the returns, we have already recovered more than the invested capital and continue to own a 51% stake in the project," says Skovgaard Andersen.

Future model

The significant financial value creation is a testament to the team's skill and dedication, Skovgaard Andersen says. "The construction phase was impacted by COVID-19 and an unusually harsh winter in Spain. Still, we could keep things on time and on budget despite the risk of infection and shutdown. In fact, we delivered the project on time and under the budgeted cost. Now Monegros is a model for future projects – and something to be proud of,"

Skovgaard Andersen adds. The success paved the way for another partnership with Forestalia on an 800 MW wind project in Teruel, Spain. This investment, held by the EUR 7.25 billion Copenhagen Infrastructure IV (CI IV) fund, is in an advanced stage of development and is expected to reach financial close in 2024.

"The strength of CIP across the board meant we were able to source and secure the right opportunity, conclude all the necessary contracts and then do a superb job in tough circumstances during construction," Skovgaard Andersen says. "The repeat business we have secured is a recognition of the achievements at Monegros, and the team should certainly be proud of their work."

The Monegros portfolio

12 onshore wind farms in operation with a total installed capacity of

487 MW

Expected annual power generation of approximately

1,400 GWh

Located in

Aragon, Spain

51%

owned by Copenhagen Infrastructure III

49%

by Arjun Infrastructure Partners

Travers
Canada
465 MWac/691 MWdc

Florian Küster
Partner at CIP

Sean Toland
Associated Partner at CIP

A textbook CIP investment

The large-scale Travers Solar project in Canada showcases Copenhagen Infrastructure Partners' ability to successfully develop, construct, finance and divest projects, even in a new market. The experience gained, including an offtake agreement with Amazon, brings many more opportunities.

Some challenges can be expected on a first large-scale project in a new market. The key is to address those quickly and find solutions.

The Travers Solar project, Copenhagen Infrastructure Partners' (CIP) first investment in Canada, was constructed during the COVID-19 pandemic, causing complications in working conditions and transportation of solar panels, amid exceptionally strong demand for shipping. The expertise of CIP, and its experienced network companies Copenhagen Infrastructure Service Company (CISC) and Blue Power Partners, enabled on time delivery after initial delays at the start of construction.

Normally there would have been 400 workers on site during the peak, but in summer 2022 this reached 750 to catch up, with school buses shuttling people in from the entire region.

"If you're facing a delay on a smaller solar project, it doesn't take much manpower to recover to schedule. But at this scale, you need a significant ramp up of resources. Contractors might not recognise the risk associated to initial delays, so they need our experience and guidance," says Florian Küster, Partner at CIP.

The recipe for success

Located about 130 km south of Calgary in Alberta, Canada, Travers is the largest non-hydro renewable energy asset in Canada, with total capacity of 465 MWac/691 MWdc. CIP's first investment in Canada started construction in March 2021 and reached commercial operations in November 2022, and now delivers clean energy to some 105,000 equivalent households.

Travers Solar was acquired from Greengate Power Corporation in January 2020. While it was sub-optimally planned from a number of perspectives, CIP saw the opportunity to acquire a fundamentally strong project located in a dynamic power market and leverage CIP's industrial heritage to optimise the project and create significant added value.

In a 20-month period, from start of construction to conclusion of divestment, CIP managed to build the largest solar farm in Canada, secure a power purchasing agreement (PPA) with Amazon, the world's largest corporate offtaker and raise CAD 500 million of senior debt at very attractive terms.

On behalf of its Copenhagen Infrastructure Fund IV (CI IV), CIP sold its 100% ownership interest in the Travers Solar project in January 2023, to a fund managed by Axium Infrastructure. The sale demonstrated the value created by CIP during the development, financing and construction phases and its commitment to making a significant contribution to the green transition.

"Travers Solar was a successful investment which was only possible due to great collaboration between CIP and our network companies. There were many workstreams going on at the same time, so it was particularly critical that we all worked together to execute on our strategy," says Sean Toland, Associate Partner. "There were challenges along the way, of course, but Travers is a great example of CIP's ability to navigate complex situations and deliver best-in-class projects for our investors."

New opportunities

The strong performance and experience gained from Travers Solar have paved the way for future CIP investments in Alberta.

"Travers Solar really highlights how we add value and our execution capabilities – from acquiring development projects, optimising and de-risking through our industrial expertise, constructing on-time and on-budget, financing and divesting. It's a successful blueprint for investing in renewable projects, which we are actively replicating in Canada and elsewhere around the world," Toland says.

In July 2022, CI IV took Final Investment Decision (FID) on Buffalo Plains, a 495 MW onshore wind farm close to Travers Solar. Construction is well underway, with Commercial Operations Date (COD) expected at the end of 2024. CIP is also developing the ~700 MWdc Aira solar project, about 150km southeast of Travers, and expects to take FID in H2 2024.

Travers is CIP's first project with Amazon as the PPA offtaker, which opens up opportunities for PPAs with the company all around the world. CIP has already signed a second PPA with Amazon for Buffalo Plains.

"Having a bankable PPA with a highly reputable counterpart is one of the key things to the whole success. Building a relationship with Amazon, the largest green power corporate offtaker in the world, is opportunity that we hope to utilise on future investments," says Küster. "With the achievements of Travers, we have established a platform to invest in new opportunities in North America as part of Fund V."

Travers solar project

Capacity of
465 MWac / 691 MWdc

1.3 million
solar panels

Area of
3,300 acres
the size of
1,600
football fields

Supplies clean energy to
105,000
equivalent households

Tønder Biogas
Denmark

Thomas Dalsgaard
Partner at CIP

The potential in biogas

Copenhagen Infrastructure Partners' acquisition of a biogas project in Denmark is the first of its kind for the company. The project is de-risked, as it is already delivering gas to the grid with a 20-year subsidy, expansion is progressing well – and there are important lessons to optimise similar future investments.

Tønder Biogas

First gas in
November 2022

Will be one of the largest biogas plants at full capacity in
Europe

Will convert approximately
900,000 tons
of green sustainable feedstock – agricultural and industrial organic waste - into approximately
40 million
normal cubic metres of renewable natural gas

Renewable natural gas is playing an increasingly large role in the green transition as well as Europe's drive to replace supplies of Russian natural gas.

Copenhagen Infrastructure Partners' (CIP) first investment in a biogas plant, at Tønder in southern Denmark, is ready to meet that demand. It has produced its first gas and work is already underway on a major expansion to reach full capacity in 2025.

CIP acquired Tønder Biogas through its CI Advanced Bioenergy Fund I (CI ABF I) in February 2023 from Canada-based Anaergia – the first investment in the fund. It has now signed an Engineering, Procurement & Construction (EPC) contract with Danish biogas technology provider Lundsby Renewable Solutions for the design and construction of the rest of the facility.

"Biogas is where the action is right now – it's decarbonisation and also plays to the need to replace Russian gas supplies," says Thomas Dalsgaard, Partner at CIP. "This is an area that is growing really fast and it could be an exciting area for future investments. Tønder is a very important project for that reason, and also as it is the first investment in the fund."

De-risked, with significant potential

Tønder Biogas has been in operation since November 2022 and production is increasing as the facility is expanded. Completion of the remaining part of the facility is expected in 2025 and work is progressing well.

Although this is CIP's first biogas investment, it has many employees involved who have significant experience in the area, including Dalsgaard, who was previously CEO for Bioenergy at Ørsted.

The site is attractive, in the middle of a significant agricultural area for supply of feedstock. CIP made the acquisition after the removal of a significant risk, as providing first supply to the grid before the end of 2022 secured a state-backed subsidy for 20 years. Further support comes from close cooperation between the deal team, investment management and CIP's partner company Copenhagen Infrastructure Service Company (CISC).

"We have had a lot of experience with biomass in terms of acquiring biomass feedstock, for example in the UK and in Denmark. The structure of contracts and stakeholders are very similar and we have been able to apply this experience in Tønder," Dalsgaard says.

"Just 18 months ago there was only one person in CISC dedicated to biogas and now there are around 10, and this is just one example of the way we are reinforcing our position to go into other similar projects."

Paving the way for more

Importantly, there has been plenty for CIP to learn from the acquisition which will inform the process for future projects. It was important to retain those skilled personnel already in place, while adding other necessary capabilities.

Overall the process went well, Dalsgaard explains, but since it was the first such deal for CIP, it will form the basis of a playbook for future acquisitions and projects. For example, the health and safety procedures in place were initially not of the same standard as CIP's and that became a major focus area.

An audit by Danish authorities in early 2023 noted a number of observations and things to improve, ranging from wearing personal protective equipment (PPE) on site to ensuring processes and procedures were safe. When they returned in summer, all of these had been resolved.

"It is clear that we really need to have close attention on the organisation from senior personnel, from day one of the takeover," Dalsgaard says. "We took over a plant that was already operating and sending gas to the grid, and developed the project from there. This has been excellent preparation for ramping up production at Tønder as well as future investments."

Mulilo
South Africa

Robert Helms
Partner at CIP

A land of renewable opportunities

South Africa has significant power shortages, often leaving people and industry without electricity for long periods at a time. Renewables could be a cost-effective solution to fill the gap, and Copenhagen Infrastructure Partners' acquisition of Mulilo Energy Holdings aims to address this significant opportunity.

Visiting the city centre of a South African city like Cape Town or Johannesburg may feel like being in a major European or North American city. Yet this is a country where large swathes of the population have no power supply for up to 12 hours at a time, on a regular basis.

These centrally managed outages, called "load shedding", are the result of decades of underinvestment in power capacity. Much of what exists is coal fired, aging and inefficient and new projects are insufficient to close the gap, while the need for new sources of energy is expanding by the day.

Copenhagen Infrastructure Partners (CIP) is tapping that market opportunity with the acquisition of a majority of Mulilo Energy Holdings, a leading South African renewable energy developer based in Cape Town, in March 2023 through its Growth Markets Fund I.

"South Africa is a market with urgent need for renewable energy and great potential for investment opportunities," says Robert Helms, Partner at CIP. "This is a large market with a massive demand for energy and at the same time, it has very good renewable resources with lots of sun and wind."

A rare combination

Mulilo is a platform with proven track record and significant growth potential, which can be accelerated with the support of CIP's expertise and financing.

It was founded in 2008, since when it has grown substantially to reach an 8% market share in the South African renewable sector. To date, it has developed and successfully delivered 440 MW of operating wind and solar projects and it also has an extensive pipeline of projects with total capacity of more than 30 GW, across onshore wind, solar PV and storage.

Renewables are a cost-competitive solution for South Africa's energy gap. Also, the infrastructure needed to develop and invest in renewables is in place, with a functioning regulatory framework, local expertise and bank financing available at scale.

"There is an excellent combination in South Africa of massive demand, good resources and an existing ecosystem that allows us to deploy our resources in an efficient way, and at scale. That's a situation that is very rarely found anywhere in the world," Helms says.

Dream team

There are some factors for an investor in South Africa to be aware of and mitigate against. There is a level of political instability, with associated possibility of changes in policy, and a highly unequal society with unemployment of 33%* and exacerbated by energy shortages. There is also a not insignificant macroeconomic risk, as South Africa has a BB-credit rating, and the national utility Eskom has been in troubled waters for years.

Black Economic Empowerment (BEE), a government policy to enhance economic participation of black people and minorities, requires that government power purchasing agreement (PPA) tenders must have up to 30% black ownership in projects, and some private offtakers request up to 51%. BEE investors are frequently underfunded, requiring the project consortium to support with equity funding.

But the potential rewards are certainly there: because South Africa is one of most polluting countries, with energy generation based mostly on coal, the impact of renewables will be very significant in terms of CO_2 reduction. There are public tenders for renewable energy projects, which are expected to scale up significantly, and private procurement, offering two proving grounds.

"We have found an excellent partner in Mulilo and we can help accelerate its impact on the South African energy market," Helms says.

"Mulilo's founders and broader team combine strong development skills and a highly entrepreneurial spirit. We believe our combination will make a meaningful positive contribution to resolve the energy crisis in South Africa with cost effective renewable energy."

* Stats SA

Mulilo project

Mulilo develops, constructs and operates renewable energy projects

Six projects in operation with a total capacity of

440MW

Development pipeline of approximately 150 projects with the total capacity of

>30GW

Team of about

50 people

Alemi
United Kingdom
4.3 GW

Nischal Agarwal
Partner at CIP

On battery power

Copenhagen Infrastructure Partners is working on a portfolio of battery storage facilities in the UK. The projects will ease transmission system congestion, enable greater renewable energy integration, lower consumer costs, and pave the way for further investments in battery storage around the world.

The Alcemi portfolio

7
battery energy storage system (BESS) projects under development in the UK

4.3GW
total energy storage capacity

Final Investment Decision
(FID) taken on first project and construction underway

There's plenty of wind in Scotland and a large and growing fleet of offshore and onshore wind farms, producing significant amounts of green electricity.

But a large part of the demand is much further south, particularly around London, southeast England, and the Midlands. Getting the power to where it's needed is no simple task, given the limited capacity across existing and planned north-south transmission lines – so while there are many windy days in Scotland, often that energy is lost.

Copenhagen Infrastructure Partners (CIP), supported by local partner Alcemi, is helping to address this by developing a portfolio of large-scale battery energy storage system (BESS) projects across the UK, so surplus power can be stored and released when transmission becomes available again.

A Final Investment Decision (FID) has been taken on the first project, Coalburn 1, with an investment of more than GBP 400 million and capacity of 1,000 MWh. Construction is now underway.

"This is a significant milestone for CIP proving the need and the business case for large scale grid connected battery storage projects in the UK," says Nischal Agarwal, Partner at CIP. "This is CIP's first major battery project globally, and the biggest in Europe, with significant potential for many more using this technology."

Sets stage for global opportunities

The strong progress in the UK is providing important experience for other significant battery investments around the world. CIP has already invested in battery projects in the U.S. and is also looking at several markets in continental Europe and Australia.

The projects being developed by CIP have strong interest from supply chain, despite recent challenges due to swiftly growing demand, and have also concluded an attractive offtake contract that underpins the revenues.

Each market has specific characteristics, according to existing infrastructure and regulation, and needs to be judged as such.

"Large-scale batteries will not be the right solution in every single market but the experience in the UK demonstrates that with an appropriate regulatory framework, the market can develop viable structures that lead to projects being developed and operated on a commercial basis," says Agarwal.

A new asset class

The Alcemi portfolio includes some of the largest energy storage projects in Europe, with planned capacities of between 300 MW and 500 MW each and storage duration of up to four hours. Construction of the more advanced projects is expected to be funded by CIP's current and subsequent flagship investment funds, Copenhagen Infrastructure IV and V.

They are being developed at strategic locations that will support the transmission system by limiting the impact of network constraints, by storing and then releasing excess power to avoid overloading the transmission network, and by providing other ancillary services to the system.

This will help reduce the overall energy cost for consumers and lower the carbon intensity of the UK power sector, ensuring better utilisation and integration of both the available and future renewable energy resource and limiting the need for fossil fuel power generation during peak demand. Batteries also mitigate stress events in the system (up to brownouts or blackouts), such as unexpected shutdowns of large power plants, when the system needs rebalancing almost instantaneously.

"Storage and batteries are now a much more prominent part of CIP's portfolio. The way we invest in batteries is to make it more like infrastructure, so there is some market risk but with an offtake contract in place that provides significant risk mitigation," Agarwal explains. "It's a new asset class with a slightly different risk profile."

St. Charles
Louisiana, USA

Søren Toftgaard
Partner at CIP

A key contributor to the ammonia transition

Blue ammonia, which is produced from fossil fuels but with the resulting carbon captured and stored, could significantly accelerate the energy transition while green ammonia production at scale is becoming more mature. Copenhagen Infrastructure Partners' St. Charles project will tap into that demand and the technology could open up further opportunities.

St. Charles project

Two phase
multi-million ton per year ammonia production facility

Will use industry leading
SynCOR™
technology by Topsoe to produce blue ammonia with the lowest carbon intensity

Carbon footprint to be reduced by
85-95%
compared to current ammonia production

Final investment decision expected end-2024; planned to be operational from
2027

The most efficient way from A to B is not always the most obvious.

Blue ammonia is a low-carbon approach to ammonia production which combines traditional ammonia synthesis using natural gas with subsequent carbon capture and storage. Copenhagen Infrastructure Partners' (CIP) St. Charles project, in Louisiana, is designed to produce about 2.8 million tons of ammonia annually, with a carbon footprint reduced by 85-95% compared to current ammonia production.

It is a new area for CIP and is set to play a major role in the energy transition, as the cost is very close to producing fossil fuel-based ammonia. The global ammonia market is 180 million tons, all produced from fossil fuels which emit CO_2, and production of blue ammonia can significantly offset that.

"We bought into St. Charles before the Inflation Reduction Act because we needed to better understand these blue projects and the role they could play. Now, the Inflation Reduction Act has further increased the chances of the project materializing," says Søren Toftgaard, Partner at CIP.

"We believe blue and green ammonia will co-exist for many years, as we gradually transition from fossil-based production. We expect to reach a final investment decision relatively quickly on a large blue ammonia project like St. Charles, which makes it a faster step forward and at a price point that's very close to fossil fuel-based ammonia production."

Unique opportunity

CIP has acquired a majority stake in the St. Charles project, which will be developed alongside U.S.-based Sustainable Fuels Group (SFG), through its Energy Transition Fund (CI ETF I). The project is de-risked, with the site secured, detailed engineering with a preferred contractor and permitting in process with experienced local consultants.

CI ETF I focuses on clean hydrogen and other next generation renewable technologies to facilitate the decarbonisation of hard-to-abate sectors such as agriculture and transportation, and closed in August 2022 at the hard cap of EUR 3.0 billion. It is an Article 9 or "dark green" fund, with clearly defined sustainable investment objectives.

Located along the Gulf Coast, the first of St. Charles project's two phases is expected to become operational in 2027.

It will use Topsoe's industry leading SynCOR™ technology to produce blue ammonia with the lowest carbon intensity and is expected to reduce CO_2 equivalent emissions by 90% compared to traditional ammonia production, thereby abating 5.0 million tons of CO_2 per year – 2.5 million tons per each phase of the project. International-Matex Tank Terminals (IMTT), a terminal and logistics company, will provide ammonia storage and handling services.

Significant potential in blue ammonia

"This is a unique site with access to existing infrastructure, such as loading docks which allow for ocean-going ammonia vessels, multiple gas supply options and a power transition line. This opens up to global markets, and there are significant opportunities for blue ammonia in Europe and Asia," Toftgaard says.

CIP is now looking for storage solutions for the captured carbon and is examining two potential sites near the St. Charles project. Discussions for long-term offtake agreements are continuing with buyers in Europe and Asia, particularly South Korea.

There are significant carbon taxes in Europe, which will make blue ammonia more competitive, and similar regulations are expected to be introduced in Japan and South Korea.

"Blue ammonia is an additional clean energy source, which will play an essential role in easing and accelerating that transition," Toftgaard says.

Green Credit Fund
CI GCF I

Jakob Groot
Partner at CIP

Nicholas Blach Petersen
Partner at CIP

Private credit comes to renewables

Copenhagen Infrastructure Partners' new Green Credit Fund is providing a new source of financing for the renewable energy sector. It enables companies to develop their businesses while providing CIP investors with access to a different part of the capital structure in renewable energy projects, compared to its other funds.

The private credit market is expanding globally, and renewable energy is no exception.

Significant credit is needed to support the rapid expansion of renewables, and new ways of financing are helping to expand the pool of funds available to developers. Copenhagen Infrastructure Partners (CIP) is leading the way with its Copenhagen Infrastructure Green Credit Fund I (CI GCF I), which was launched in February 2022 with EUR 320 million of commitments and closed fund raising in August 2023 with about EUR 1 billion of commitments.

"You have a business with talented people and a portfolio of projects which are ready for construction projects. You can organise some senior financing and some equity, but it may only add up to say 80% of what you need," says Jakob Groot, Partner at CIP and Co-Head of GCF I. "So then you have a tough choice – you can sell projects, sell equity or sell your whole business. Now, CIP has the ability to come in and fill that gap and allow people to grow their own businesses and remain owners."

It is CIP's first debt fund and provides private project finance debt with subordinated risk characteristics supporting renewable energy projects globally. It is performing well and is about 40% committed.

"We've built the platform and the team specifically to be able to address the market opportunity while drawing on the resources and expertise that sit within the broader CIP organisation. We have executed four transactions to date including two large transactions with co-investors from our LP base – something we expect to see more of in the future," Groot says.

"It has really been an excellent start in quite choppy markets, considering increases in interest rates and inflation. That means that in fixed income, investors will pick someone they trust and it's a vote of confidence in our ability to deliver."

Multiple advantages

CI GCF I's focus is on green- and brownfield projects in wind, solar PV, biomass, storage and transmission assets, and geographically on Europe, North America and selective jurisdictions in Asia Pacific.

The fund provides investors access to an asset class with substantial growth momentum, attractive risk-adjusted returns and low correlation to other asset classes. It is mainly concerned with direct investments, but also has ability to do risk sharing transactions.

"We saw an opportunity to do three things with a credit strategy," says Nicholas Blach Petersen, Partner at CIP and Co-Head of GCF I. "The first is to provide our investors with a lower risk product, to which CIP is adding a significant amount of value. Then we aim to improve the ratio between risk and return by investing in projects and businesses where CIP has a significant amount of expertise and experience."

"Last but not least, it opens up another avenue to support the green transition. CIP aims to be responsible, as a single company, for saving 1% of global CO_2 emissions. We're not going to build all the capacity in the world – and this is a way in which we can support others to do that, while offering attractive investments for our limited partners."

Accelerating TagEnergy's growth

The global clean energy enterprise TagEnergy announced the closing of a dual currency (AUD and EUR) green bond in June, totalling a maximum of EUR 570 million with CIP and the Singaporean institutional investor GIC as investors.

The issuance will be instrumental in supporting the growth of TagEnergy's renewable energy portfolio of onshore wind, battery energy storage systems (BESS) and solar PV assets in the UK, Europe and Australia.

TagEnergy, founded in 2019, has successfully achieved financial close on several renewable energy projects, including the first stage of the 1.3 GW Golden Plains Wind Farm onshore wind mega-project in Victoria, Australia as well as four BESS facilities across the UK totalling 169 MW.

The first tranche of the green bond will add to existing funding sources for the construction of the first stage of Golden Plains, with the remaining up to EUR 300 million follow on tranche dedicated to TagEnergy's other global renewable assets. It will play a major part in the company's aim to put over 4 GW of onshore wind and other renewable energy projects into commercial operation in several OECD countries.

"This partnership shows how green credit works in practice," says Groot. "TagEnergy has a strong management team and a robust portfolio of projects, combined with a really exciting pipeline. Investment from Copenhagen Infrastructure Green Credit Fund I and GIC will help to accelerate TagEnergy's impressive work, while allowing CIP to make a further meaningful contribution to the green transition."

Green Credit Fund

Deployed capital

40%

4

transactions closed

As of November 2023

Copenhagen Infrastructure Partners

Copenhagen Infrastructure Partners P/S
CVR 37994006

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