July 2023

# A Renewed Energy

## The Momentum Behind Investing in Renewables

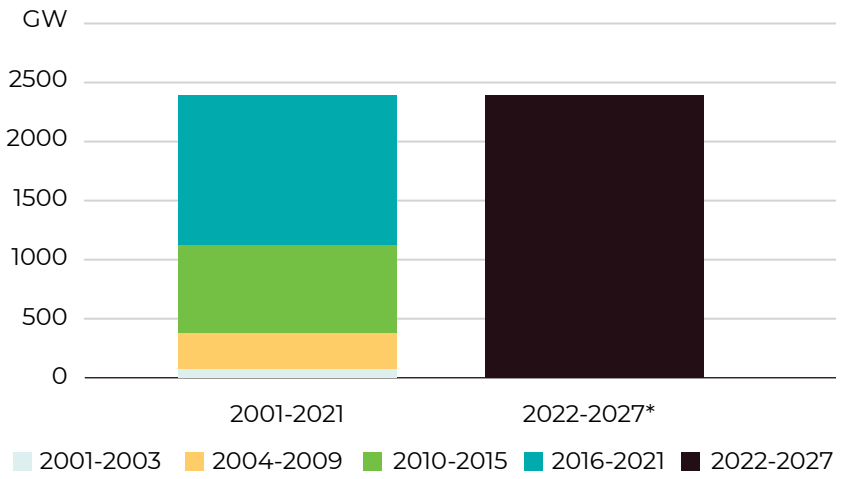
ONTARIO TEACHERS' PENSION PLAN

Scotland wants to parlay its title as the windiest country in Europe into another distinction: global offshore wind powerhouse. Its ambitions will get a boost from projects like West of Orkney, a massive wind farm set to rise from the seas off the north of Scotland by the end of the decade. Its developers say that, once operational, West of Orkney will produce enough electricity to power 2 million homes and help make Scotland a leader in offshore wind technology.

Scotland isn't alone: renewable energy projects are being developed from Queensland to Gujarat. As the collective effort to reduce carbon dioxide (CO2) in the atmosphere accelerates, the International Energy Agency (IEA) expects the world to add as much renewable power in the 2022-2027 period as it did in the previous 20 years. That will knock out coal as the largest source of electricity generation by early 2025, far sooner than the IEA was predicting a decade ago.

Experts say the world needs to add renewable energy at an even faster clip if the world is to reach net zero by 2050. In this report, we look at investments to scale renewable energy and to help address some of the challenges involved in expanding its use.

**Total renewable electricity capacity additions, 2001-2027**




GW= gigawatts | *forecast

Source: IEA

# Four trends driving demand for renewable power

## 1. Bolder climate ambitions

As the planet warms and extreme weather events multiply, the sense of urgency around tackling the climate crisis has increased. Global actors ranging from national governments and cities to businesses are embracing bolder climate ambitions.

At the heart of these ambitions is the transformation of the global economy from one mainly powered by fossil fuels into one in which renewables dominate and electricity powers more human activities.

## 2. A heightened focus on energy security

Russia's invasion of Ukraine, in addition to creating significant human impacts, sent energy prices soaring and upended energy markets. It also refocused the world's attention on energy security in a way not seen since the oil crisis of the 1970s. That was especially evident in the European Union, which was highly dependent on Russian oil and gas and already looking to make its energy supplies more sustainable.

Some countries responded with initiatives that hindered their energy-sustainability goals in the short term, such as restarting coal-fired power plants. In the medium to long term, concerns about energy security will heighten investment in renewables—and some of that change is already happening.

The four forces driving investment in renewables overlap and even amplify each other in important ways.

For instance, the industrial programs that major economies have unveiled will strengthen their supply chains and domestic manufacturing while also improving energy security and also helping them achieve climate ambitions.

What's more, by installing more renewable power capacity, countries are furthering their climate ambitions while helping to make renewable electricity generation more cost competitive.

**88**

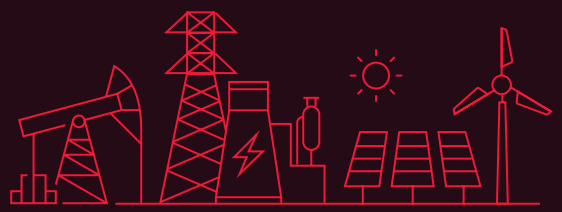
**countries covering almost 80% of global emissions have adopted net-zero targets**

Source: United Nations

**80%**

**of the world's population lives in countries that are net energy importers**

Source: IEA



## 3. The rise of climate-centric industrial policy

The world's largest economies are looking to bolster their economic and technological independence by remaking trade relationships and nurturing industries they deem strategic. The trend started with China's Made In China 2025 plan, a sweeping plan first unveiled in 2015 to reduce China's dependence on foreign technology and to develop advanced manufacturing in 10 priority sectors. The U.S. Inflation Reduction Act and the European Union's Green Deal Industrial Plan are other recent examples of large-scale industrial policy seeking to attract major investment in domestic manufacturing.

All these plans prioritize the development of clean-energy technologies. Countries are using tax credits and direct investment to advance their climate goals and improve their competitiveness. The renewables sector is set to shine in this era.

**What some countries plan to spend to support clean energy**

**EU Green Deal Industrial Plan**
**EUR270B**

**Japan GX (Green Transformation) Roadmap**
**YEN20T**

**U.S. Inflation Reduction Act**
**US$360B**

**Made In Canada Plan**
**C$83B**

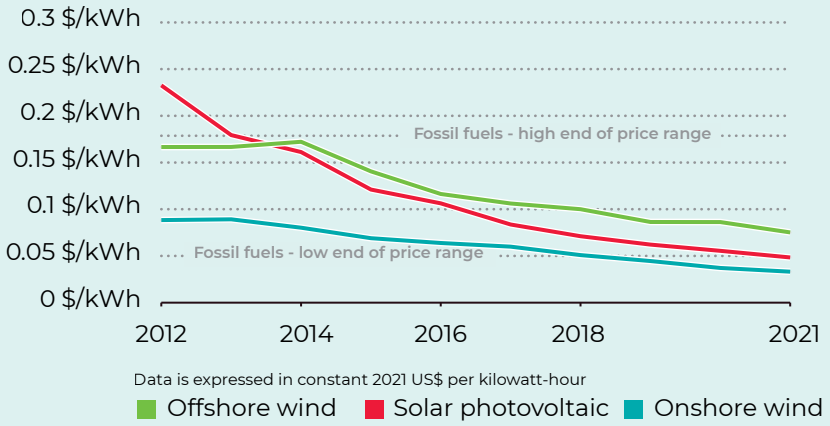
Sources: Edelman Global Advisory, The Delphi Group

## 4. The improving cost-competitiveness of renewable power

For many years, it was cheaper to produce electricity from fossil fuels than from renewable energy sources. But as the cost of solar panels and wind turbines declined and the installed capacity of renewables increased, the cost of producing power from renewable sources fell sharply over the last decade. In many jurisdictions, producing power from renewables is cost-competitive with generating power from fossil fuels.

That's not to say there won't be other costs associated with ensuring that a global energy system that's more dependent on renewables continues to provide reliable power. Those costs include investment in energy storage and other technologies to manage the intermittency of renewable power.

**Levelized cost of energy by technology, world**
Average cost per unit of energy generated across the lifetime of a new power plant




Source: Our World in Data

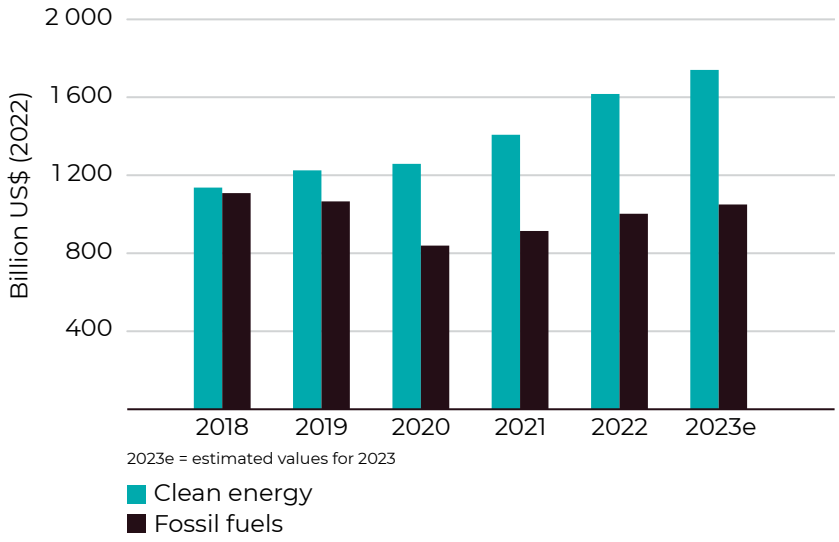
# A snapshot of global investment in renewables

## Investment is rising

Global spending on renewables hit a record of almost US$600 billion in 2022, the IEA says. That was a significant share of the US$1.6 trillion invested in clean energy overall.

The increased spending came amid the financial pressures of the post-pandemic era, including higher inflation, rising interest rates and economic volatility, and strong returns for fossil-fuel investments.

### Global energy investment in clean energy and fossil fuels

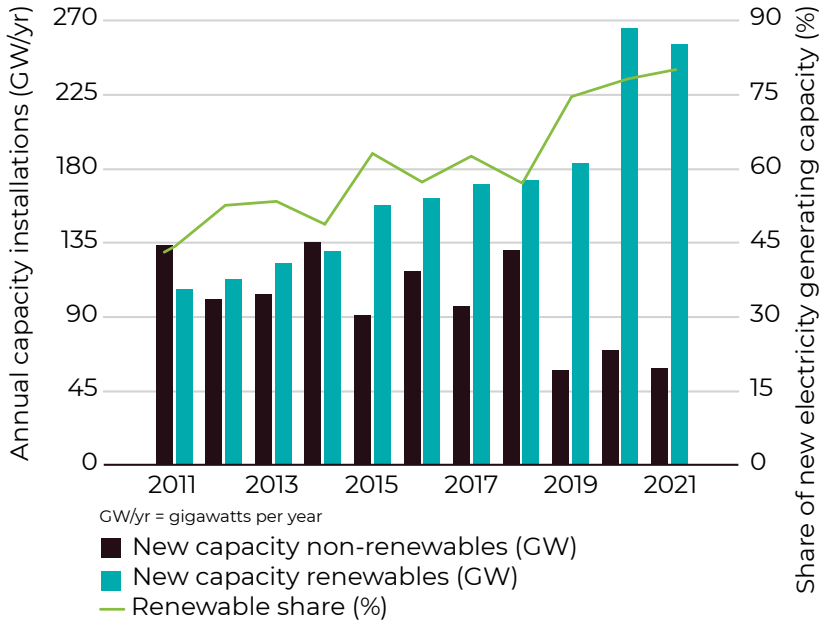



*Clean energy includes renewable power, nuclear, grids, storage, low-emission fuels, efficiency improvements and end-use renewables and electrification

Source: IEA

While investment in fossil fuels remains robust—the IEA estimates it will top US$1 trillion in 2023—clean energy is drawing even larger investment. The agency estimates that overall investments in clean energy will top US$1.7 trillion in 2023, with almost 40% of that spent on renewables.

### Renewables account for the bulk of new electric generating capacity




Source: International Renewable Energy Agency (IRENA)

## Investment is concentrated

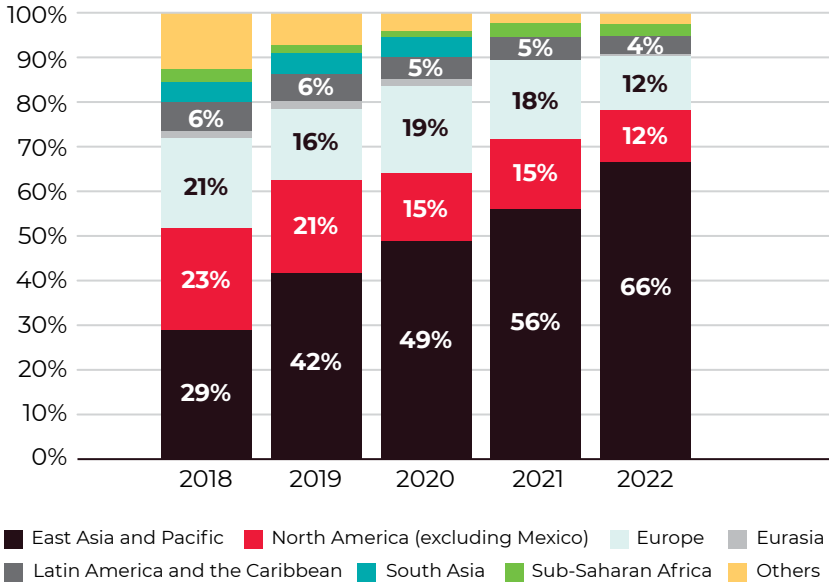
The bulk of the world's renewable power generation capacity has been built in China, Europe, the U.S., and India. China in particular leads in both renewable capacity additions and the production and trading of the technologies that underpin renewables, such as the components used in solar and wind power. Other economies, including the U.S. and European Union, have signaled plans to boost domestic manufacturing of the technologies that will be critical to scaling renewable power.

Investment in renewables has largely been concentrated among major economies with large populations and relatively high emissions—and their investment in scaling renewables is key to the global energy transition.

Major climate-centric industrial plans will likely continue to attract an outsize share of investment dollars to relatively few countries. This concentration of clean-energy supply chains could complicate efforts to ensure a broad-based energy transition.

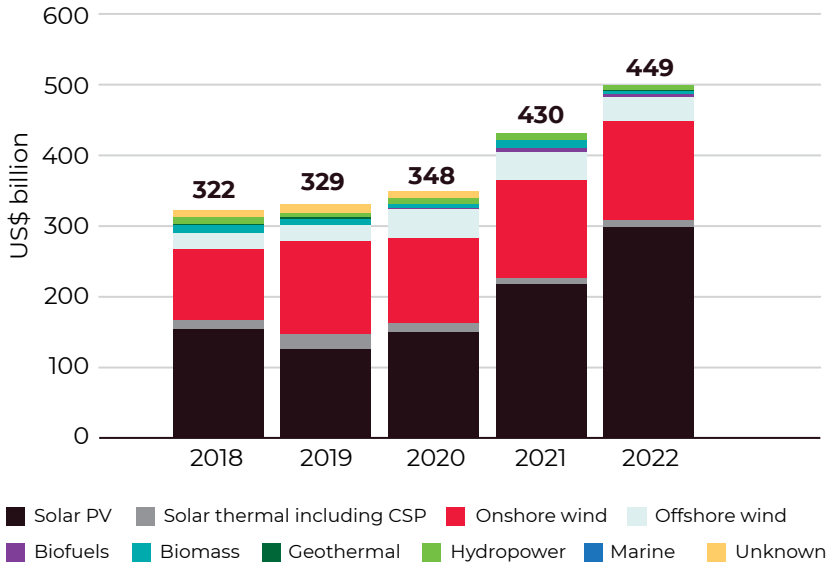
Spending has been concentrated in certain technologies, notably solar photovoltaic (PV) and onshore wind power. Investment in a wider range of technologies will be needed to ensure global energy systems are flexible and resilient and that the world remains on track to decarbonize by 2050.

### Investment in renewable energy by region of destination




Source: IRENA

### Annual financial commitments in renewable energy, by technology




Source: IRENA

# Thoughtful investment will be key to scaling renewable energy

Expanding renewable energy to the scale needed to achieve net zero is a formidable challenge. The stunning pace of growth in renewable energy this century suggests it's achievable. That's not to say the effort will be easy. The use of fossil fuels is entrenched in many parts of the global economy, and the fossil-fuel industry continues to attract significant investment and government support, for instance in the form of consumption subsidies.

The transition to a world mainly powered by renewables will require massive investment. To expand proven technologies like solar and onshore wind. To scale offshore wind, a highly reliable form of renewable energy. To develop less mature but promising technologies which can build resilience into global energy systems. And to ensure that both developed and emerging markets benefit from renewables investment.

Scaling renewables will also require consensus-building. Some communities object to the proximity of large renewable projects. Others are concerned about the effects that such projects could have on local wildlife. Central to the success of renewables developers is community engagement to demonstrate they have carefully considered and mitigated the social and environmental impacts of their projects to maintain the social license to operate.

Ontario Teachers' clean-energy investments are spread across geographies and technologies. This report focuses on four specific efforts involving renewable energy: scaling offshore wind power, expanding renewables in emerging markets to decouple economic growth from emissions growth, tackling the intermittency challenge of renewables, and investing in the potential of hydrogen.

Before we turn to these efforts, we want to share a conversation with David Swindin, the CEO of Cubico Sustainable Investments, of which we are a 50% owner. As the head of a company with a diverse portfolio of renewable energy and transmission assets across 12 countries, David is well placed to describe the state of play in renewables.

# David Swindin

**CEO, Cubico Sustainable Investments**

# From alternative to mainstream: A conversation with Cubico's David Swindin

**What's your outlook for renewable energy?**

We're naturally really positive on the sector. For many countries, the Ukraine invasion put renewables on the agenda as a way of achieving energy security. Also, acceptance of global warming has become mainstream. That's driving vast amounts of investment, and it's happening very quickly. Whenever people have made predictions about the amount of renewables, they've been underestimated. So I wouldn't be surprised to see these numbers blown out of the water.

**What factors might slow down the sector's growth?**

One is the grid (see box on page 9). It's all very well to build a renewable plant, but if you can't connect it to the grid or export your electricity, you have a problem. Another challenge is the permitting of projects. Everybody wants renewables, but they don't necessarily want a project next door to them. Permitting and better grid connectivity are probably the two biggest challenges, and we see that repeated in country after country.

**China, the U.S., Europe, and India are investing massive amounts in renewables. Are other countries seeing less investment?**

If you look at those four blocs, they're the ones with biggest populations, so that's where there will be lots of investment. But we see it everywhere. In places like Australia, it's because they're getting out of coal. In places like Brazil, it's because the population is growing, and the economy is growing, and there's a bigger demand for electricity.

**Are strained or concentrated supply chains a problem for the sector?**

It's an issue, and I think COVID brought it into sharp focus. There's been a big problem with sourcing solar panels. We're now seeing new factories to build solar panels in the U.S. Countries are thinking about how to protect their supply chains.

**One concern with renewables is intermittency. For a renewables company, is it enough to build the renewable generation, or do you have to invest in storage too?**

Increasingly, you'll have to integrate them. If you build a solar farm, you'll have to put some batteries alongside to help store the electricity. We're expecting some very big growth in storage. We're going to see it in pretty much every market.

**CUBICO AT A GLANCE**

| 2.8 GW | ~800 MW | 2.2 GW |
|---|---|---|
| installed capacity | under construction | development pipeline |

**Describe Cubico.**

We were probably the first example of pension fund managers creating a specialized renewable energy platform. Other have followed, but it was a very bold decision by Teachers' and PSP Investments at the time. The idea that you needed some specialist skills to invest properly in this industry showed some foresight. We do everything from development through to constructing through to owning. We blend financial skills with industrial skills and sort of sit in the middle between what a big utility might do and what a fund might do.

**You're in 12 countries. How do you navigate that?**

When we started, we were very clear that if we were going to be in different countries, we needed to be local at the same time. We knew we needed to have good people on the ground, because this is not just a passive investment. If you don't have local people who understand how the legislation works, what the governments are doing locally, and so on, I think you really struggle.

**Scaling renewable energy won't be possible without a strong electric grid.**

Some projects must be located to take advantage of optimal weather conditions—say, ample sun or wind—despite being far from populated centres. That will require the expansion of transmission systems.

What's more, many of today's aging grids aren't well positioned for the surge in demand that will come from increased electrification.

In addition to our renewables investments, Ontario Teachers' is investing in power grids to support the energy transition. Read about our grid investments here.

**What is an advantage of being in many countries?**

The advantage is that not everyone's going to be going 100 miles an hour all the time. There'll be three or four countries that will have a spurt and the others will be a bit quieter. We can direct resources into areas that are picking up because of what governments want to encourage.

**Talk about a notable Cubico project.**

One of our most recent ones is the Wambo onshore wind farm in Australia. We've just started building the first stage. When all three stages have been built, it'll be an 800-megawatt project. So it's huge, and what's notable is that the Queensland government is a partner. They're offtaking the electricity. What's more, the project is helping Queensland get rid of coal but also have what they call a "just transition." There is a plan to retrain some of the employees that worked on coal-fired power stations so they can work on wind farms. It's a very positive story about how you can help people move into new areas.

**What has surprised you most about the renewables sector and how it has evolved?**

When we started, renewables were considered an alternative investment. Now it's solidly mainstream. It's surprised me how quickly the market has changed, how quickly it has grown, and how quickly the mindset of investors has changed. As people look at a future with electric cars and things like that, they see this exponential growth in the industry, and it's not going to come from coal or gas. It's going to come from renewables.

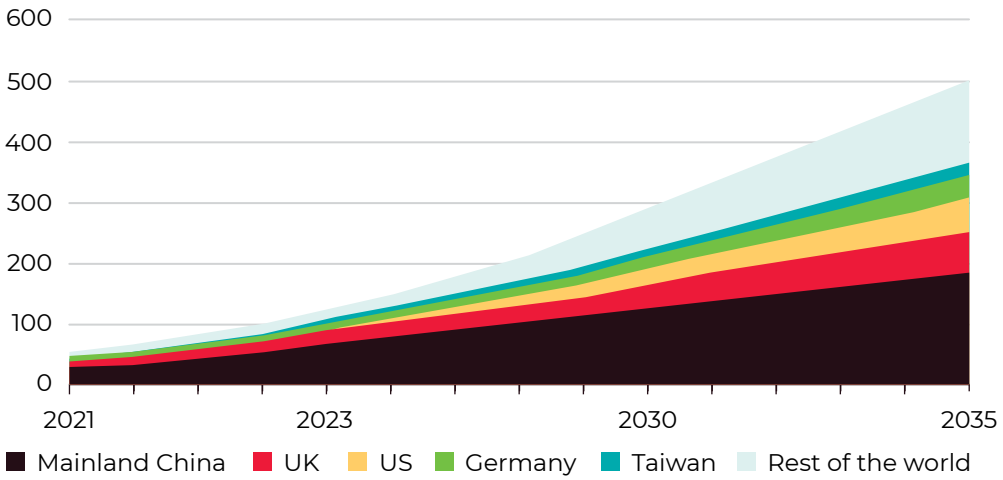
# Four ways in which Ontario Teachers' is investing in renewable energy

# 1. Harnessing the advantages of offshore wind

Because offshore winds are strong and consistent, offshore wind power is considered highly reliable, making the growth of offshore wind energy capacity critical to helping the world reach net zero. But investment in offshore wind capacity has lagged behind investment in onshore wind. That's because developing offshore wind is more costly and technically challenging.

Technical advancements are changing the outlook for offshore wind. Turbines have gotten bigger and more efficient, and their cost has declined. With the development of floating foundations, they can be installed in deeper waters, making more locations accessible to development.

**Offshore wind capacity is expected to grow 10-fold by 2035**




Source: BloombergNEF

## Case Study

### Corio Generation: Scotland's wind lifts up the U.K.'s clean energy ambitions

With almost 19,000 kilometers of coastline and exclusive use of 462,000 square kilometers of seabed off its shores, Scotland possesses significant wind resources that can play a key role in the U.K.'s decarbonization. Recognizing the opportunity, the Scottish government is encouraging the development of an offshore wind industry that could provide vast amounts of clean energy to the U.K. and beyond while supporting local economic growth.

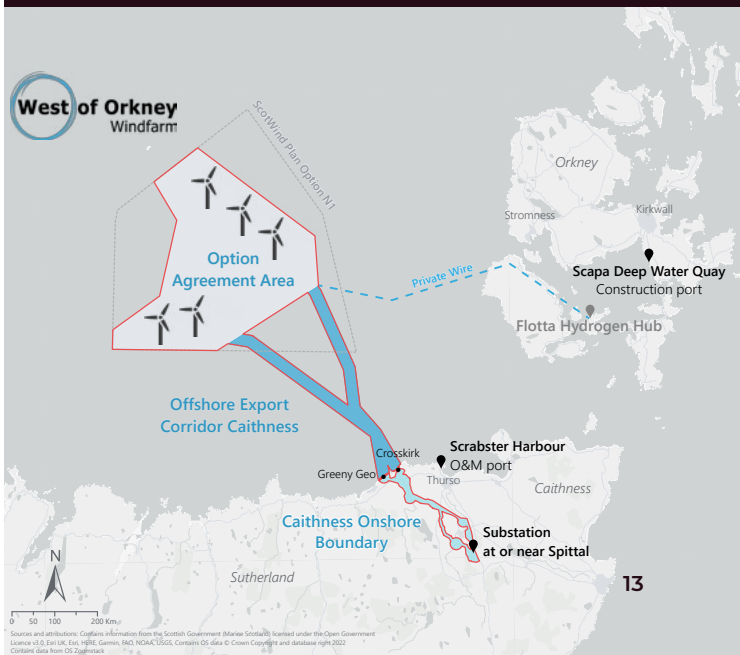
Scotland in January 2022 awarded leases covering around 7,000 square kilometers of seabed to 17 offshore wind projects. Interest from investors and developers was fierce: the 17 winning projects were chosen from 74 applications, and Scotland ended up procuring a combined 25 gigawatts of future capacity, compared with the 10 gigawatts it had been expecting. All applicants had to detail how their investment would benefit the local supply chain, create jobs, and help transform Scotland into a major hub for offshore wind technologies.

One of the 17 projects selected was the West of Orkney Windfarm, which is being developed by a consortium comprising Corio Generation—an offshore wind developer which launched last year as a portfolio company of Macquarie Asset Management's Green Investment Group—as well as global multi-energy company TotalEnergies and RIDG, an independent Scottish wind project developer. Ontario Teachers' relationship with West of Orkney began in 2022, when it entered into a long-term partnership with Corio and committed to invest up to US$1 billion in the development of offshore wind energy projects worldwide.

That includes an ownership stake in West of Orkney, which occupies a 657-square-kilometer area—about the size of 10 Manhattans—off Scotland's northern coast. The project's developers were attracted to its strong wind conditions, proximity to a connection with the national electric grid, and highly suitable seabed depth for the massive fixed-foundation turbines which will eventually rise above the North Atlantic. The team has spent the last few years carrying out extensive planning, public consultations, environmental studies and more as they prepare to submit a consent application later in 2023. The construction phase will follow, and by the end of the decade, West of Orkney is expected to be generating 2 gigawatts of clean electricity, enough to power about 2 million homes. There is also potential for the project to deliver renewable energy to a green hydrogen production facility.

West of Orkney will contribute to the U.K.'s plan to produce a total of 50 gigawatts of electricity from offshore wind by 2030.

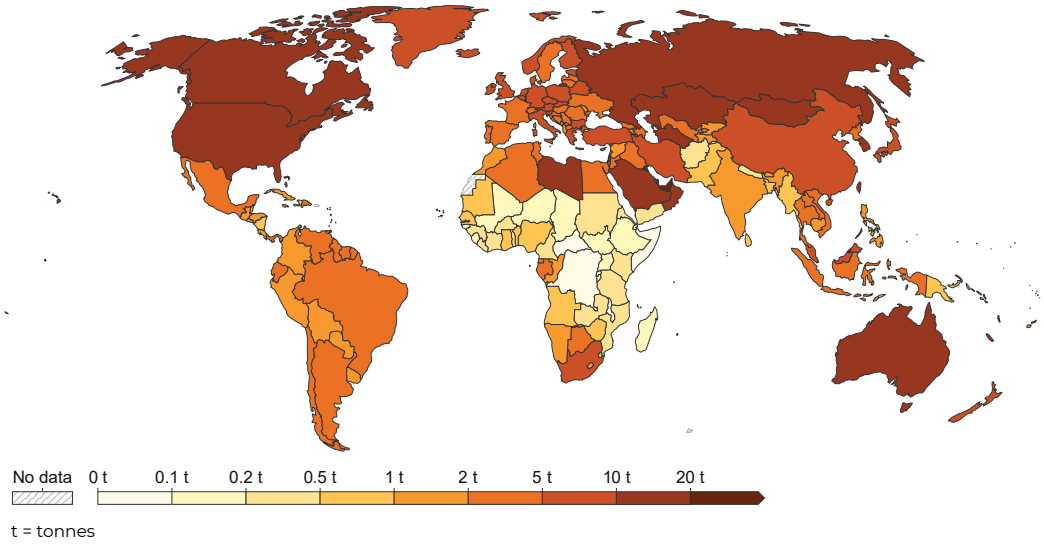
> ***"When it comes to offshore wind, Scotland has an amazing resource. Some people call it the next North Sea opportunity (in reference to the region's vast and prolific oil and gas resource). Frankly, to meet U.K. and European emissions-reduction targets, Scottish offshore wind is key to that ambition."***
>
> Mark Giulianotti,
> Head of Europe, Corio Generation



## 2. Decoupling economic growth from emissions growth

The remarkable growth of certain developing economies, such as China and India, has lifted millions out of poverty. But that enviable economic progress has come at a cost: higher emissions. China's, for instance, have tripled since 1990, according to research firm Rhodium Group. That's a warning signal for the collective effort to limit global warming.

**Per capita CO2 emissions from fossil fuels and industry, 2021**




Source: Our World in Data

Expanding renewable energy in developing countries will be essential if they are to grow sustainably. The IEA says the private sector will play a major role in mobilizing clean-energy investment in these countries. Annual renewables investment in emerging and developing economies must rise at least sevenfold by the end of this decade to prevent a surge in emissions from these countries, it warns.

Case Study

## Mahindra Susten: Investing in one of India's leading renewable energy platforms

Few countries illustrate the importance of getting renewables right better than India. The South Asian giant surpassed China as the world's most populous country in 2023. A decade ago, it was the world's tenth-largest economy. It's now in fifth spot, and the Indian government expects it to move into third spot before 2030. While emissions have increased, India's per capita emissions remain very low compared with those of other economies. To mitigate climate change, it will be critical for India to decouple rising prosperity from emissions growth.

India, a major importer of coal and oil, sees investment in renewables as a way to address the emissions challenge while boosting its energy security. In 2010, it launched a National Solar Mission to encourage the growth of its solar power capacity, at the time only a few megawatts. Prime Minister Narendra Modi came to power in 2014 with plans to further expand renewables. At the 2015 Paris Climate Summit, India pledged that 40% of its power capacity would be met by non-fossil fuels by 2030. It met that target in 2021, nine years earlier than targeted.

Now the world's third-largest producer of renewable energy, India aims to have 500 gigawatts of installed electricity capacity from non-fossil sources by 2030, up from around 173 GW in 2022. And it has signaled it's open to international investment to help it achieve that goal.

Ontario Teachers' acquired a 30% stake in conglomerate Mahindra Group's renewables platform in 2022. Mahindra Susten was a first mover in India's solar sector, establishing a presence as builder of turnkey renewable power projects for utility-scale customers before expanding into independent power production. As of 2023, Susten's engineering, procurement, and construction (EPC) business has built 4.2 gigawatts of projects, and it also operates 1.5 gigawatts of power-producing assets. Mahindra Group also has a renewables operations and maintenance business through an entity Mahindra Teqo, which is the largest player, in the solar domain, within the sub-continent. Going forward, Mahindra Susten is committed to developing projects focused on solar energy, hybrid energy, and integrated energy storage.

> ***"We started with a few megawatts, as a country, and today we have over 100 gigawatts of renewable energy assets of which about 60-65% is solar. All of it built in the last 10 years. That's an amazing journey by any benchmark and we at Susten, feel privileged, to have contributed towards this. We are committed to re-imagine clean energy and will continue to demonstrate this by our emphasis on quality, innovation, and the best in technological design, in the projects we further build."***
>
> Deepak Thakur,
> Managing Director & CEO, Mahindra Susten

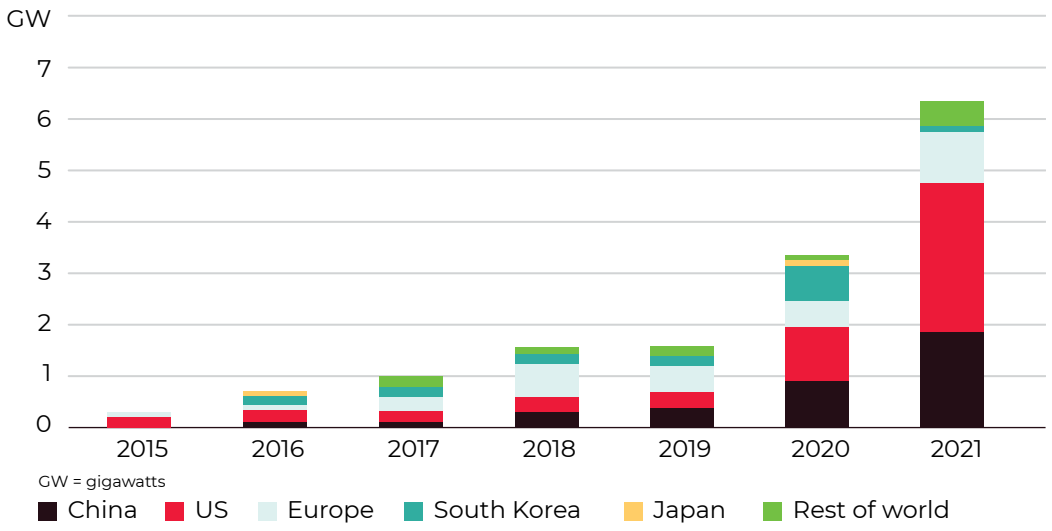
Susten has been a key partner for investing in renewables in India, where acquiring land for future projects requires local knowledge and sensitivity. With eight projects across six states, it has expertise in navigating permitting in India's federal system.

While India is known for its engineering prowess, the country's clean-energy ambitions will require the expansion of a skilled workforce to operate the rising number of renewable energy projects. Susten is contributing to this massive reskilling effort by funding and operating a training centre in the Indian town of Karjat. The Mahindra Susten Centre of Excellence has already trained more than 10,000 people for careers as technicians in India's renewables sector. Susten's effort to support a just energy transition by developing much-needed skills has been recognized in a report from the United Nations Global Compact.

## 3. Tackling the intermittency challenge to scale renewables

Fossil-fueled power has endured partly due to its on-demand nature; it's there when it's needed. By depending on weather conditions, renewable energy sources like solar and wind power aren't constantly available.

### Annual grid-scale battery storage additions




Source: IEA

Cracking this intermittency challenge will be essential if the world is to wean itself off fossil fuels while still enjoying the economic and social benefits and comforts of easily dispatchable power. Solutions exist—including pumped hydropower storage and grid-scale battery storage—but they will need to be further scaled to ensure the grid remains stable as more renewables are brought online.

## Case Study

### Equis Development: Using battery storage to smooth out variations in renewable power

Australia is in the midst of a complex transition away from a dependence on coal and towards a future in which renewables will power the needs of its 26 million people. While coal still accounted for 54.6% of total electricity generation in 2022, according to the Australian Clean Energy Council, renewables accounted for 35.9%, double their share just five years earlier. The Australian government wants renewables to supply 82% of electricity generation by 2030.

To move away from fossil fuels, the Australian Energy Market Operator (AEMO) has outlined a multifaceted transformation that includes increasing generation from clean sources, building 10,000 kilometers of new transition lines to accommodate diverse and dispersed sources of renewable power, and adding so-called firming capacity, which helps keep the system stable as coal-fired power is replaced by weather-dependent sources. The AEMO has identified technologies that help manage seasonal variations in output from solar and wind generation as a pressing need. That's no surprise in a country where extreme heat is a growing concern, and millions turn to air conditioning for relief.

Ontario Teachers' is investing in Australia's energy transition through our stake in Equis Development, a Singapore-based energy infrastructure developer. Equis identified, planned and is developing a portfolio of battery energy storage projects across Australia, including Melbourne Renewable Energy Hub, a 1.2-gigawatt project near Melbourne that the State of Victoria has approved as a "project of state significance." Once complete, the Melbourne Renewable Energy Hub will be the biggest battery in Asia, serving more than 1 million households.

The massive battery project will store excess energy, such as rooftop solar energy captured during the day. And because it will connect to the state's high-voltage transmission system nearby through underground lines, it will be able to rapidly dispatch that stored energy back into the grid when needed. Because of its size and ability to react quickly to demand shifts, the Melbourne project is expected to enhance the national grid's stability and resilience, and ultimately help Australia incorporate more renewable power into the system. The project's first phase is set to begin operations in 2025.

# 4. Unlocking hydrogen's potential

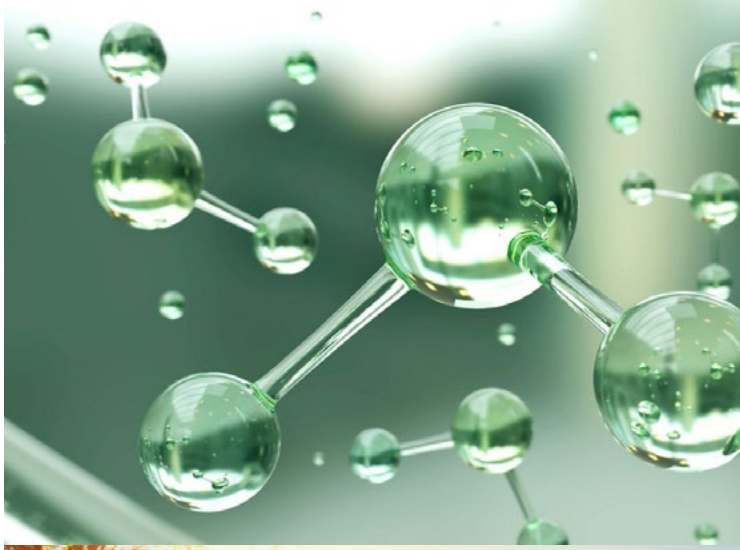
Hydrogen is the most abundant element in the universe. Here on earth, it's found in compound form (with other elements) in sources that include natural gas, coal, water, and biomass. Once separated from those sources, hydrogen is a versatile energy carrier with a number of advantages. It doesn't produce CO2 when burned, and it has significant potential to decarbonize emissions-intensive sectors such as steel and chemical production and long-haul transportation. Hydrogen can also be stored in large amounts and for extended periods before being transformed into electricity.

Today, hydrogen is mostly produced from fossil fuels for use in heavy industry. To unlock its decarbonization potential, the world will have to produce more hydrogen from the electrolysis of water, using renewable electricity. At present, that's very expensive. Scaling up green hydrogen will require investment in technologies like electrolyzers as well as abundant and affordable renewable power.

### Energy storage alternatives

| Storage Technology | Typical Size Range | Typical Storage Duration | Efficiency | Lifetime |
|---|---|---|---|---|
| **Battery (Lithium-ion)** | 100 MW | 4h-8h | 85-95% | 1000-10000 cycles |
| **Pumped Storage Hydro** | 10-3000MW | 4h-16h | 70-85% | 30-60 years |
| **Hydrogen Project** | 100MW-several GW | hours-months | 35-45% | 30-50 years |

Source: Why the Western U.S. Needs Energy Storage, Mitsubishi Power



## Case Study

### ACES Delta: Scaling up green hydrogen in the western U.S.

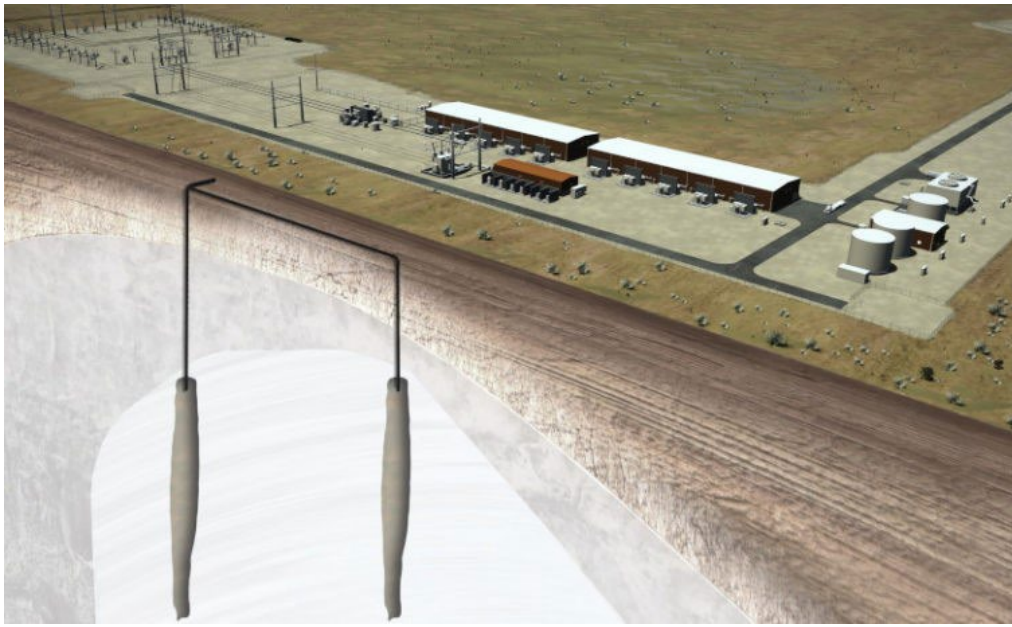
Salt caverns have long been used to store fossil fuels underground—the U.S. government's Strategic Petroleum Reserve is a well-known example. Now, an innovative project in Utah is being developed to store vast amounts of green hydrogen.

A consortium including Mitsubishi Power Americas, a maker of power-generation equipment, and Magnum Development, a developer of fuel-storage caverns, saw potential in central Utah's underground salt domes and abundant sun and wind. They launched the Advanced Clean Energy Storage (ACES) project, which will use renewable energy to power electrolyzers that will split water into hydrogen and oxygen. The resulting hydrogen will be stored in two caverns carved out of the massive salt dome that lies below Delta, Utah. Once built, ACES Delta will be the largest green hydrogen storage facility in the world.

Ontario Teachers' invested in ACES Delta in 2022. The project has received US$500 million in financial support from the U.S. government. It also benefits from having a major utility customer, the Intermountain Power Agency, which supplies electricity to communities across the Western U.S., including six cities in heavily populated Southern California. Alongside the ACES Delta program, the IPA plans to retire its coal-fired power generation units in Delta in 2025 and begin generating electricity from units that can run on a mix of natural gas and hydrogen. Its longer-term goal is to generate power using 100% hydrogen from ACES Delta.

Making hydrogen from renewables is currently more costly than making it from fossil-fuel sources. ACES Delta's economic advantage lies in storage. The project's caverns will be able to hold up to 11 million kilograms of clean hydrogen for long periods, at low cost, before it is again used to generate power. Its sheer size stacks up well against lithium-ion batteries, which can cheaply and efficiently store excess renewable power only for shorter periods.

ACES Delta aims to solve a major obstacle to decarbonizing the western U.S.: seasonality. The region is capable of producing vast amounts of renewable energy in the windy and sunny spring and fall seasons—more than can be stored using batteries. But it strains to satisfy power demand during cloudy winter months and summer heat waves. The ACES Delta project can store hydrogen for such times, when it can be converted back into electricity.



# The promise of renewables

Expanding renewable energy will have many benefits, from reducing air pollution and mitigating climate change to creating millions of skilled jobs. The sector's growth is poised to bring a measure of energy independence to countries that historically relied on others for their energy supplies. Indeed, renewable energy has the potential to support widespread prosperity in a way that fossil fuels have not. That's because renewable energy sources are plentiful, can be deployed at almost any scale, and lend themselves to decentralized forms of energy production and consumption. The International Renewable Energy Agency calls this the "democratizing effect" of renewable energy.

Investing in renewables is just one way in which we are using our capital to make a lasting, real-world impact as we create value for our members. Ontario Teachers' is also working to support a more sustainable future by reducing the carbon intensity of our portfolio and by adding to our green assets, with a goal of reaching $50 billion in green investments. For more information about our efforts, see our climate strategy.

> ***"We recognize the incredible effort and investment that will need to go into rebuilding the world's electricity and infrastructure. We have built a team that has broad experience across geographies and types of renewables and really understands how to invest in this sector."***
>
> Chris Ireland, Senior Managing Director, Greenfield Investments & Renewables, Infrastructure & Natural Resources

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