

**SIGNINA CAPITAL AG**

**WATER INFRASTRUCTURE  
QUARTERLY REPORT – Q2 2021**



### **Waste Water, Mt. Holly, NJ**

A New Jersey-based Wastewater Treatment Plant where original funds were partly used to mount solar panels to increase energy efficiency of the plant, lower costs over time, and provide energy to the local municipality. The state of New Jersey requires electricity suppliers to secure a portion of their electricity from solar facilities located in NJ, creating a natural market for Solar Renewable Energy Credit (SREC) trading credits. The project not only reduces the plant's energy consumption but also improves its overall efficiency. We can surely extend our reach in this area and currently look at a broader investment opportunity in the same sector.

### **Sustainable Sewerage, Ontario**

The Sustainable Sewerage market in Ontario currently undergoes a significant change when it comes to consolidation and strong demand for renewal of existing plants. Amongst others we are working with a public company which has developed a technology providing sewage collection and water treatment. It offers an all-in-one solution which is both cheaper to install and operate than traditional systems. The existing projects are all government linked and work closely with municipalities and we are currently working towards a PPP pipeline for its sewerage system. The provincial regulations regarding sewerage mean that many municipalities are required to change/install systems in the coming years. We have been implementing the first parts of the portfolio of existing projects and we will continue to implement more under the same framework. The constant diversification increased the security for the investors but also allows us to further reach into this market. The investment model has not changed, but the reach within Ontario has become broader.

### **Industrial Re-use, Blue Planet, California**

The project is a carbon capture and mineralization project based in Pittsburg, CA. The project will capture both wastewater and CO2 emitted from a gas-fired power plant and combine these with locally sourced demolished/returned concrete as a process input material to produce several different "CO2 sequestered" and "up-cycled" aggregate products for use by Bay Area businesses, governments and consumers in a wide range of low-carbon, high-value concrete mix designs. The wastewater and steam will be obtained from either the local power plant or from the sanitation district that can provide wastewater and the ammonia needed from their treatment plant which is located adjacent to the plant. As a result, either method will use recycled water, which is legislatively supported in California. The whole process revolves around reusable and recyclable products. The carbon dioxide mitigation, waste water usage and demolished concrete process input provide a process producing recycled aggregates while reducing carbon dioxide.

### **Hydropower, Marseilles, Illinois**

A lock and dam hydroelectric water power project located on the Illinois River. The site has obtained a FERC License (expires 2061) and is finalising development. Once the site is connected and producing energy it will provide power to the local municipalities and income will be generated by the power purchase agreement in place.

### **Hydropower, Braddock, Pennsylvania**

A lock and dam hydroelectric water power project located on the Monongahela River, Pittsburgh. The site has obtained a FERC License (No. P-13739) with a 5.25MW capacity and is finalising development. The site, once producing energy will provide power to the local area with income being generated via the sale of the energy.

## **CURRENT PROJECTS**

2021 continues to be the year of ESG with the movement of carbon neutral and saving the planet becoming a reality rather than just a talking point. This has been seen with new regulations coming, the US new infrastructure bill and the serious approach to renewable energy; partially due to solar and wind energy being feasible without requiring incentives. All this links up nicely to water infrastructure. Whether it is the hydro projects providing clean energy or sustainable sewerage providing a solution to the waste issues many cities have water infrastructure is a requirement across various ESG topics. We continue to look at small to mid-sized projects taking a practical approach. As discussed last quarter our new quarterly reporting and our ESG report reflect where the trends are heading from a practical perspective. There are still plenty of regulations and changes that will occur in the coming years so we aim to continuously understand the laws and guidelines in different parts of the world, while at the same time not get overwhelmed while the movement is still in its infancy. We hope to have some more news in the next 3-6 months.

# REGIONAL MARKET INFORMATION

## NEWS IN BRIEF

### Veolia agrees to buy Suez, ending bitter takeover battle

<https://www.bloomberg.com/news/articles/2021-04-12/veolia-agrees-to-buy-suez-ending-bitter-takeover-battle>

### Net Zero by 2050 – A Roadmap for the Global Energy Sector

<https://www.iea.org/reports/net-zero-by-2050>

### PERENfra and DIF Capital Partners Announce North American Water Infrastructure Partnership

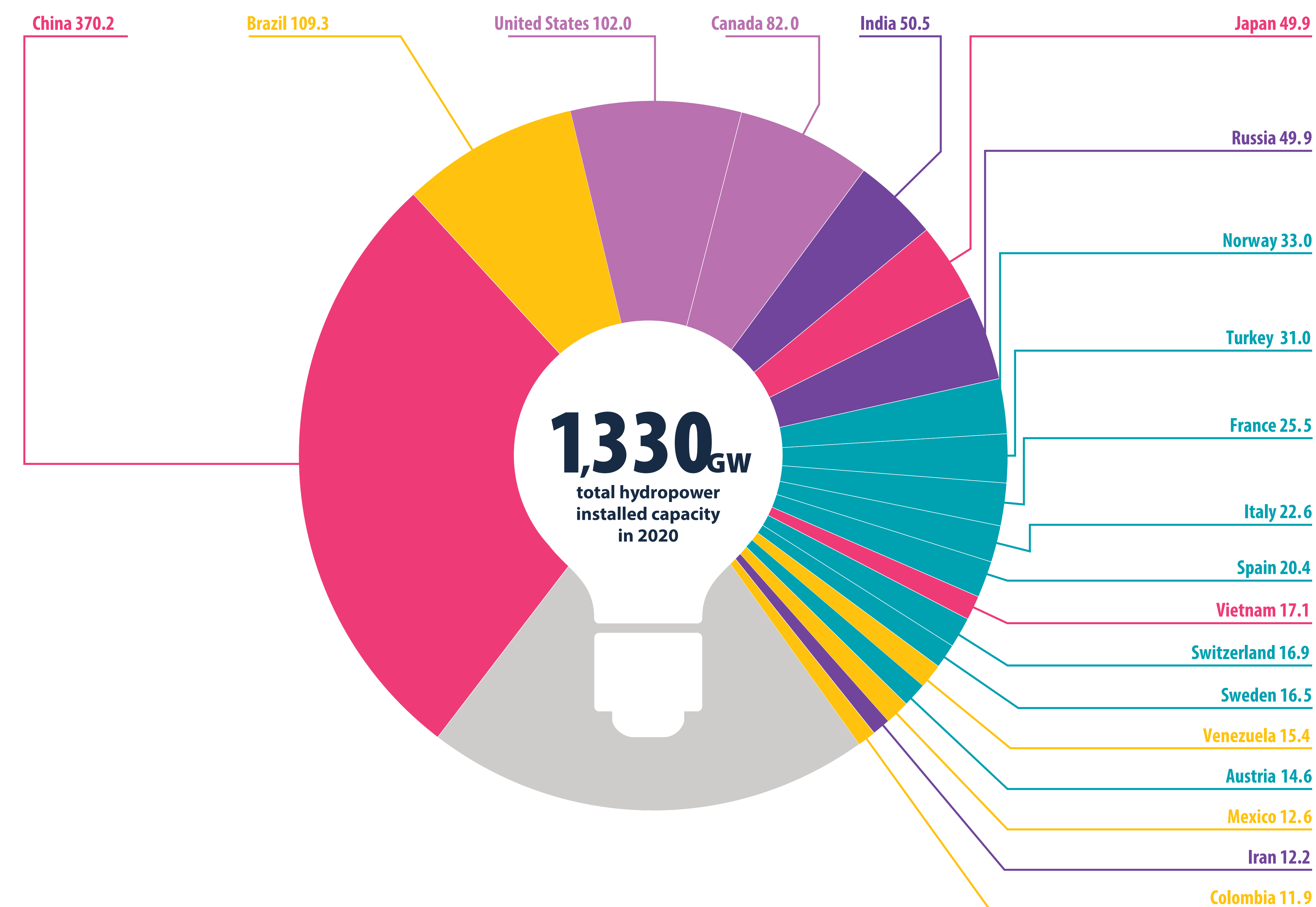
<https://www.businesswire.com/news/home/20210427005303/en/PERENfra-and-DIF-Capital-Partners-Announce-North-American-Water-Infrastructure-Partnership>

## 2021: HYDROPOWER STATUS REPORT - GLOBAL DATA, TRENDS AND INSIGHTS FROM THE INTERNATIONAL HYDROPOWER ASSOCIATION<sup>1</sup>

Below is part of the executive summary from the IHA regarding the global hydropower market.

The challenge of climate change remains the dominant issue for the energy sector. The International Energy Agency (IEA)'s flagship Net Zero by 2050 report, suggests the world will need 2,600 GW of hydropower capacity by

mid-century to have a chance of keeping global temperature rises below 1.5 degrees Celsius. That means that we need to build the same amount of capacity in the next 30 years as in the previous 100.



It is now becoming increasingly clear that the role of renewable hydropower will undergo a qualitative shift over the coming decades. While it will continue to provide low cost, baseload electricity in many markets, hydropower will increasingly be valued for its flexibility and provide essential support to the huge growth in wind and solar that is needed to limit global warming.

Indeed, as recognised by the IEA, hydropower will become the dominant source of flexible electricity by 2050, so it is essential that investment steps up to ensure low carbon energy security over the coming decades.

Events over the past year have demonstrated that electricity systems need flexibility now. In Europe, in January 2021 a blackout event was avoided through the support of highly flexible sources of generation like hydropower, conversely in Texas in February 2021 supply failed in extreme weather and there was not enough flexible generation available to compensate.

The report shows the hydropower sector generated a record 4,370 terawatt hours (TWh) of clean electricity in 2020 - up from the previous record of 4,306 TWh in 2019. To put this into context, this is approximately the same as the entire annual electricity consumption of the United States.

Overall hydropower installed capacity reached 1,330 gigawatts (GW) in 2020. This represents year-on-year growth of 1.6 per cent - higher than 2019 but still well down on the more than 2 per cent needed to enable hydropower's essential contribution to tackling climate change.

China remains the world leader in respect of total hydropower installed capacity with over 370 GW. Brazil (109 GW), the USA (102 GW), Canada (82 GW) and India (50 GW) make up the rest of the top five. Japan and Russia are just behind India, followed by Norway (33 GW) and Turkey (31 GW).

The rise of 21 GW in total hydropower installed capacity in 2020 represented an increase of 1.6 per cent on the previous year. By comparison, the average year-on-year growth in installed capacity in the five years between 2016 and 2020 was 1.8 per cent. It is important to note however that annual growth can vary considerably depending on when

major projects, which are years in development, are commissioned.

Notwithstanding, the world needs significantly more hydropower, to be built at a much faster rate, if it is to tackle climate change. Multilateral bodies such as the International Energy Agency (IEA) and International Renewable Energy Agency (IRENA) have previously stated that the world needs around an additional 850 GW of new hydropower to keep global warming below 2 degrees Celsius. To reach this target would require yearly growth of around 2 per cent a year on average.

But if we want to limit temperature rises to 1.5 degrees the challenge is greater. The IEA's Net Zero by 2050 report now estimates some 1,300 GW of new hydropower capacity is needed by 2050. To achieve this more stretching target the yearly growth required increases to at least 2.3 per cent if the world starts building at this rate now.

In addition, the global hydropower fleet is ageing, and although much can be modernised it is inevitable that there will be some retirements, affecting future capacity.

## THE WORLD'S FIRST 'INFINITE' PLASTIC<sup>2</sup>

While usually not necessarily on our radar screen, we have found interesting uses of water on new technologies as well. Obviously hydrogen is a topic globally, but to use water to recycle plastic is an additional use, not broadly reported on. The way we normally recycle plastics is a downward spiral of waste and degraded materials, but there is another option – turning plastic back into the oil it was made from.

Efficiently recycling plastic by conventional means is notoriously difficult, and only 9% of all plastic ever made has been recycled into new plastics. But what if there was a way to turn plastic back into the stuff it was made from? The “next grand challenge” for polymer chemistry – the field responsible for the creation of plastics – is learning to undo the process by turning plastics back into oil.

This process – known as chemical recycling – has been explored as a viable alternative to conventional recycling for decades. So far, the stumbling block has been the large amount of energy it requires. This, combined with the volatile price of crude oil sometimes makes it cheaper to produce new plastic products than to recycle existing plastic.

**Every year, more than 380 million tonnes of plastic is produced worldwide. That's about the same as 2,700,000 blue whales – more than 100 times the weight of the entire blue whale population. Just 16% of plastic waste is**

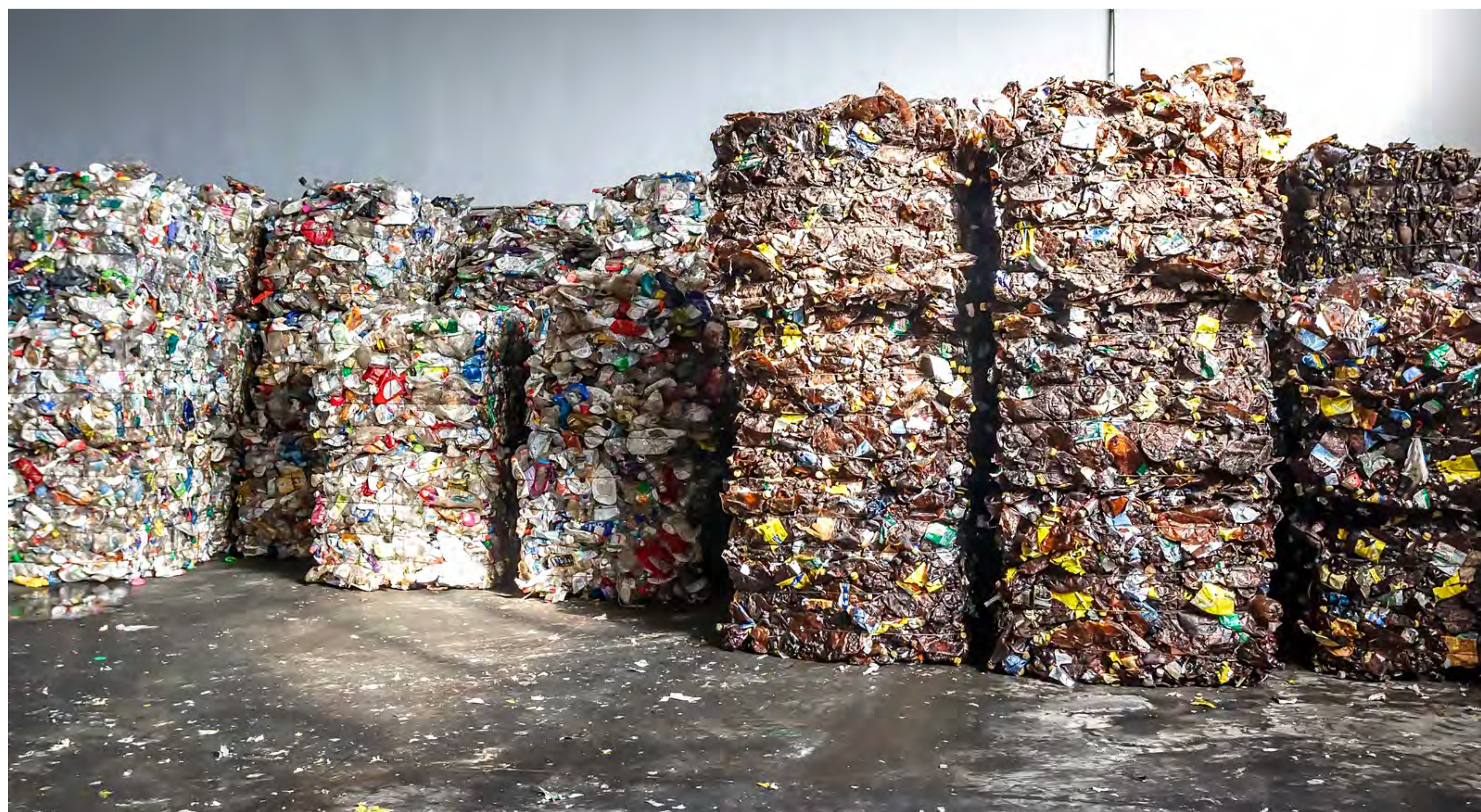
**recycled to make new plastics, while 40% is sent to landfill, 25% to incineration and 19% is dumped.**

Much of the plastic that could be recycled – such as polyethyleneterephthalate (PET), which is used for bottles and other packaging – ends up in landfill. This is often due to confusion about kerbside recycling or contamination with food or other types of waste.

The way plastic is currently recycled is more of a downward spiral than an infinite loop. Plastics are usually recycled mechanically: they are sorted, cleaned, shredded, melted and remoulded. Each time plastic is recycled this way, its quality is degraded. When the plastic is melted, the polymer chains are partially broken down, decreasing its tensile strength and viscosity, making it harder to process. The new, lower grade plastic often becomes unsuitable for use in food packaging and most plastic can be recycled a very limited number of times before it is so degraded it becomes unusable.

The emerging industry of chemical recycling aims to avoid this problem by breaking plastic down into its chemical building blocks, which can then be used for fuels or to reincarnate new plastics.

The most versatile version of chemical recycling is “feedstock recycling”. Also known as thermal conversion, feedstock recycling is any process that breaks polymers down into simpler molecules using heat.



Chemical recycling begins the same way as ordinary mechanical recycling, with collecting and crushing plastics and taking them to a plant (Credit: Alamy)

Chemical recycling techniques are being trialled across the world. UK-based Recycling Technologies has developed a pyrolysis machine that turns hard-to-recycle plastic such as films, bags and laminated plastics into Plaxx. In the US, the chemical company Ineos has become the first to use a technique called depolymerisation on a commercial scale to produce recycled polyethylene, which goes into carrier bags and shrink film.

In the UK, Mura Technology has begun construction of the world's first commercial-scale plant able to recycle all kinds of plastic. The plant can handle mixed plastic, coloured plastic, plastic of all composites, all stages of decay, even plastic contaminated with food or other kinds of waste.

**Mura's "hydrothermal" technique is a type of feedstock recycling using water inside the reactor chamber to spread heat evenly throughout. Heated to extreme temperatures but pressurised to prevent evaporation, water becomes "supercritical" – not a solid, liquid, nor gas. It is this use of supercritical water, avoiding the need to heat the chambers from the outside, that Mura says makes the technique inherently scalable.**

If you heat the reactor from the outside, keeping an even temperature distribution is really hard. The bigger you go the harder it gets. It's a bit like cooking: It's hard to fry a big steak all the way through but if you boil it, it's easy to make sure it's cooked evenly all the way through.

A pilot plant has shown that the use of very hot, supercritical water can help chemical recycling scale-up to useful levels (Credit: Licella)

Once this high-pressure system is depressurised and the waste exits the reactors, the majority of liquid flashes off as vapour. This vapour is cooled in a distillation column and the condensed liquids are separated on a boiling range to produce four hydrocarbon liquids and oils: naphtha, distillate gas oil, heavy gas oil and heavy wax residue, akin to bitumen. These products are then shipped to the petrochemical industry.

As with other feedstock techniques, there is no down-cycling as the polymer bonds can be formed anew, meaning the plastics can be infinitely recycled. With a conversion rate of more than 99%, nearly all the plastic turns into a useful product.

Mura's Teesside plant, due for completion in 2022, aims to process 80,000 tonnes of previously unrecyclable plastic waste every year, as a blueprint for a global rollout, with sites planned in Germany and the US. By 2025, the company plans to provide one million tonnes of recycling capacity in operation or development globally.



The plant that is being constructed at Teesside in the UK aims to process 80,000 tonnes of plastic waste every year (Credit: Mura)

Mura hopes its use of supercritical water for efficient heat transfer will allow them to scale-up to industrial levels, lowering energy use and costs. It could be a crucial factor for success where others have failed.

One of the main reasons chemical recycling has failed to take off so far has been financial collapse. In a 2017 report, Gaia noted multiple projects that had failed, including the Thermosteel facility in Germany which lost more than \$500m (£350m) over five years, the UK's Interserve which lost £70m (\$100m) on various chemical recycling projects, and many other companies that faced bankruptcy.

Mura has recently announced partnerships with the plastic manufacturers Dow and Igus GmbH, and the construction firm KBR. Even with the ability to unmake all types of plastic so they can be reused again, it is unlikely to make all of the problems with plastic pollution go away. With so much ending up in landfill and the environment, plastic will continue doing what it was made to do – endure.





# WASTE WATER | MT. HOLLY, NEW JERSEY

A **New Jersey-based Wastewater Treatment Facility (WWTF)** where funds were partially used to mount solar panels to increase energy efficiency of the plant, lower costs over time, and provide energy to the local municipality. The state of New Jersey requires electricity suppliers to secure a portion of their electricity from solar facilities located in NJ, creating a natural market for Solar Renewable Energy Credit (SREC) trading credits. The project not only reduces the plant's energy consumption but also improves its overall efficiency. It also helped in 2010 to improve the infrastructure in an area that was hard hit during the financial crises.

The site continues to operate and provide energy with the usual stronger summer months. Pricing appears to be stable. The new SREC purchase occurred in June. Otherwise the energy continues to be produced and directly sold on the grid.

- Monitor PPA component
- Monitor SREC eligibility and prices on the market (1 SREC for every 1000kW-hours of electricity produced)
- Monitor regulatory shifts in clean energy incentive programs (RPS) and timelines
- Document any changes to the investment expectations
- Online monitoring of the solar power as well

UN SDG	ICMA CRITERIA	ESG POLICY SOLUTION
 <p>6 CLEAN WATER AND SANITATION</p>	<p><b>Renewable energy</b></p> <ul style="list-style-type: none"> <li>• Climate change mitigation</li> <li>• Natural resource conservation</li> <li>• Pollution prevention and control</li> </ul>	<p><b>Clean energy creation</b> – solar panels provide clean renewable energy</p>
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p><b>Climate change adaptation</b></p>	<p><b>Pollution reduction</b> – the Waste Water Treatment Facility (WWTF) utilizes the solar panels energy via a power purchase agreement. This reduces the heavy amount of energy required by the WWTF which would otherwise be coming from non-renewable sources of energy</p> <p><b>Energy efficiency</b> – the proximity of the site to the waste water facility offers a high energy efficiency</p>
<p><b>ESG RISK MITIGATION</b>   • Renewable Energy consumption • Water Consumption</p>		

- ✓ Accounts in balance
- ✓ SREC prices stable
- ✓ Incoming receivables within range of model
- ✓ Costs within range of model
- ✓ Meets target return of 7-9%





- ✓ Accounts in balance
- ✓ Project updates
- ✓ Incoming receivables within range of model
- ✓ Meets target return of 7-9%
- ✓ Interest payments made on time

# SUSTAINABLE SEWERAGE | ONTARIO

The Canadian wastewater market is highly fragmented. The market requires small impact installations, rather than traditional centralised large waste water treatment plants. Our existing 200 projects are government linked and only fully licensed projects with no planning risks are being considered. Signina focuses on business consolidation of mid-sized businesses, operating in project sizes of \$5-50m. The small to mid-range business growth is supported by shifting demographic developments into smaller, satellite communities, as well as a stable favourable regulatory environment.

With wastewater rates rising steadily, the risk-reward associated with Signina’s consolidation strategy is readily apparent and has picked up pace since its start in 2008. With larger institutional mandates we have triggered more deals diversifying from the existing projects. The investment model has not changed, but the reach within Ontario has become broader. Sustainable sewerage has become a major concern over the past couple of decades. The Safe Drinking Water Act 2002 (regulates the operation of potable water treatment plants and the pipe network) and the Ontario Clean Water Act 2006 (regulates actions required to protect source water from contamination, through assessment and implementation of measures to protect the water sources). The majority of the contracts are in municipalities that are rated A or higher by rating agencies. In addition there are various municipalities that do not carry any debt.

The operations continued to operate through the winter months as construction picks up in Spring and summer. Renewals and negotiations have remained dynamic with the current uncertainty with many of the Covid delayed sites likely to go back online this year. There has been some pickup for new business and contracts which are being assessed. Any current construction requirements approved can commence.

UN SDG	ICMA CRITERIA	ESG POLICY SOLUTION
<p>6 CLEAN WATER AND SANITATION</p>	<p><b>Sustainable water and wastewater management:</b></p> <ul style="list-style-type: none"> <li>• Pollution prevention and control</li> <li>• Natural resource conservation</li> <li>• Climate change adaption</li> </ul>	<p><b>Sustainability</b> - providing finance and assistance in creating and maintaining infrastructure for wastewater treatment and clean water</p>
<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p><b>Eco-efficient and/or circular economy adapted products, production technologies and processes</b></p> <ul style="list-style-type: none"> <li>• Climate change mitigation</li> <li>• Natural resource conservation</li> </ul>	<p><b>Pollution prevention</b> - by creating sustainable sewerage infrastructure the need for septic tanks and landfill sites are heavily reduced. The waste water treatment assists an ongoing global problem with handling waste and impurities</p>
<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>		
<p><b>ESG RISK MITIGATION</b></p>		<p>• Water Re-use • Water Pollution</p>



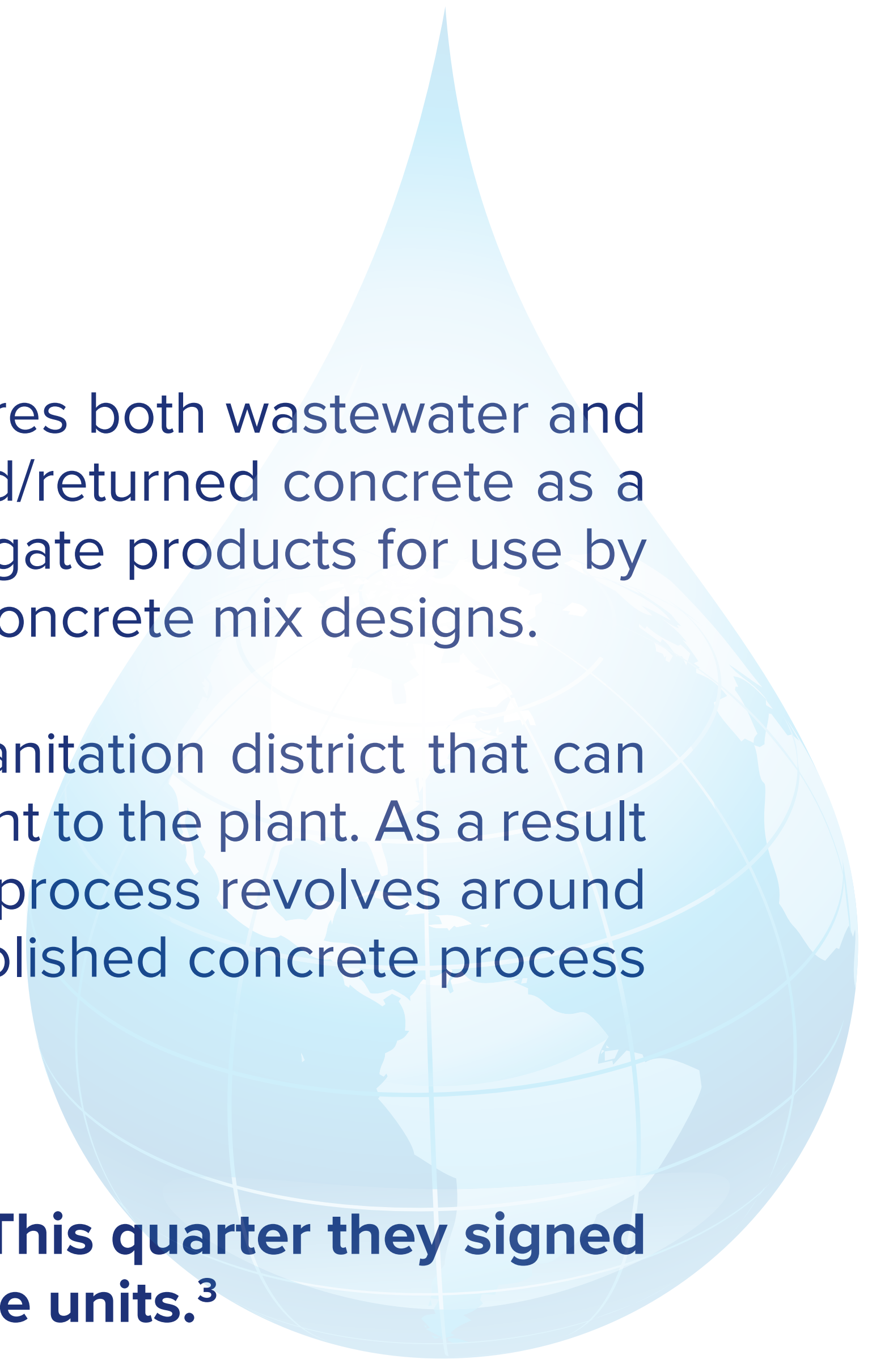
# INDUSTRIAL RE-USE | BLUE PLANET, CALIFORNIA

The project is a **carbon capture and mineralization project based in Pittsburg, CA**. It captures both wastewater and CO<sub>2</sub> emitted from a gas-fired power plant and combine these with locally sourced demolished/returned concrete as a process input material to produce several different “CO<sub>2</sub> sequestered” and “up-cycled” aggregate products for use by Bay Area businesses, governments and consumers in a wide range of low-carbon, high-value concrete mix designs.

The wastewater and steam will be obtained from either the local power plant or from the sanitation district that can provide wastewater and the ammonia needed from their treatment plant which is located adjacent to the plant. As a result either method will use recycled water, which is legislatively supported in California. The whole process revolves around reusable and recyclable products. The carbon dioxide mitigation, waste water usage and demolished concrete process input provide a process producing recycled aggregates while reducing carbon dioxide.

The project and technology company continues operate as expected and gain momentum. This quarter they signed a partnership agreement with Sulzer Chemtech to assist in providing efficient carbon capture units.<sup>3</sup>

- Maintain monthly communication with project team
- Document changes and delays to the permitting process



UN SDG	ICMA CRITERIA	ESG POLICY SOLUTION
<p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p><b>Climate change adaptation</b> <b>Green Buildings</b></p> <ul style="list-style-type: none"> <li>• Climate change mitigation</li> <li>• Natural resource conservation</li> <li>• Pollution prevention and control</li> </ul>	<p><b>Reuse of wastewater</b> – the water will be obtained from either the local power plant or from the sanitation district. This results in recycling the wastewater</p>
<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	<p><b>Eco-efficient and/or circular economy adapted products, production technologies and processes</b></p> <ul style="list-style-type: none"> <li>• Climate change mitigation</li> <li>• Natural resource conservation</li> </ul>	<p><b>Recycling products</b> – the process also uses locally sourced demolished concrete as a process input to create aggregate products for use in the Bay Area</p>
<p>13 CLIMATE ACTION</p>		<p><b>Sustainable buildings</b> – the aggregates created in the process are from renewable and green sources. This in turn does not impact the environment negatively and meets the goal of sustainable cities and communities</p>
<p><b>ESG RISK MITIGATION</b>   • Water Re-use • CO<sub>2</sub> Emissions Neutrality • Pollution</p>		

- ✓ Accounts in balance
- ✓ Permitting process on schedule
- ✓ Timeline on Track
- ✓ In line to meet target return of 7-9%

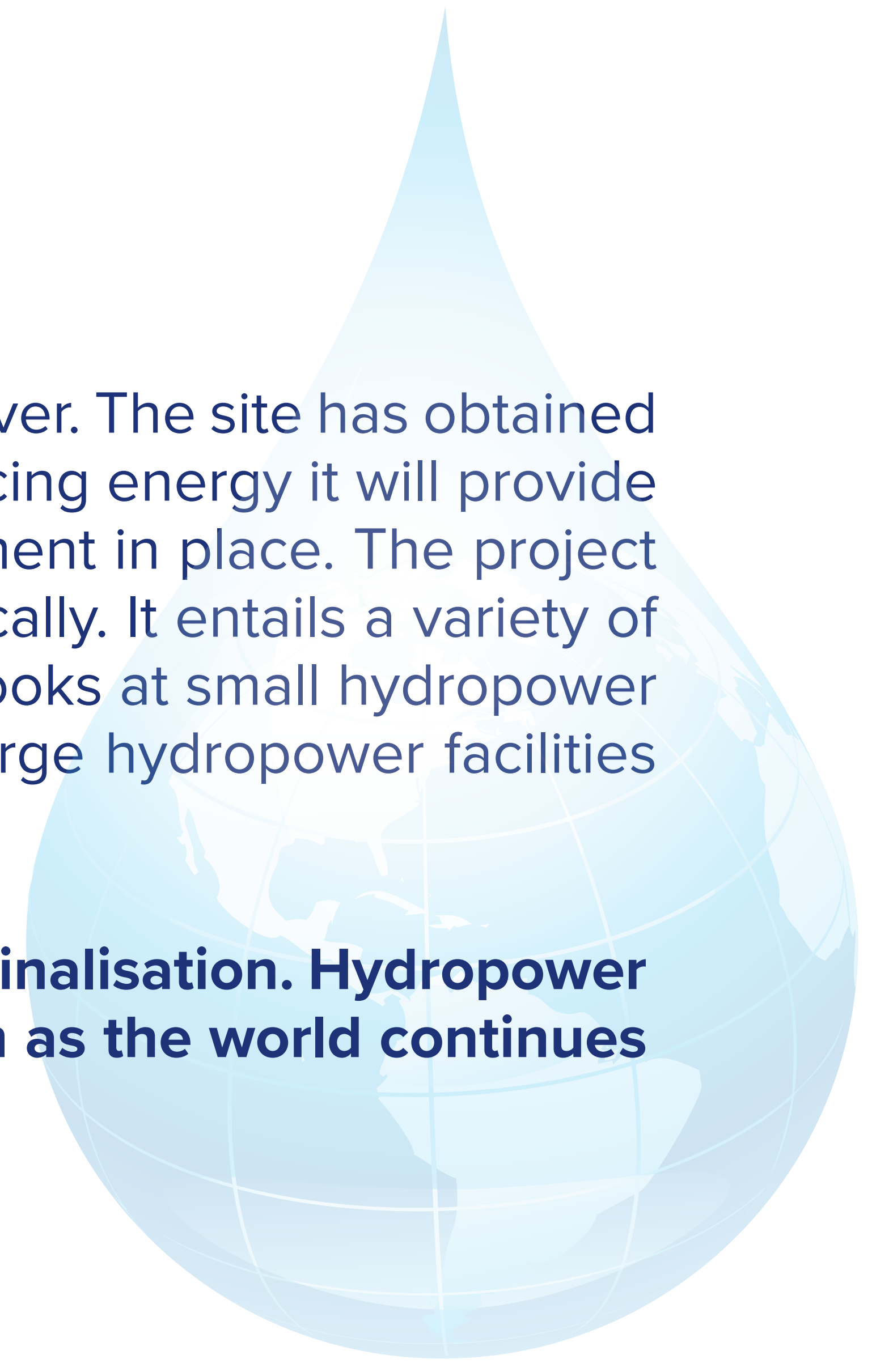




# HYDROPOWER | MARSEILLES, ILLINOIS

**Hydropower, Illinois:** A lock and dam hydroelectric water power project located on the Illinois River. The site has obtained a FERC License (expires 2061) with a 10.26MW capacity. Once the site is connected and producing energy it will provide power to the local municipalities and income will be generated by the power purchase agreement in place. The project is considered a small- or mid-sized project and has reduced the environmental impact dramatically. It entails a variety of environmental rules from the EPA that have been fulfilled with the FERC licence. The mandate looks at small hydropower facilities (below 25 MW) as such sites have minimal impacts on the surrounding area unlike large hydropower facilities which often have negative impacts on the surrounding environment.

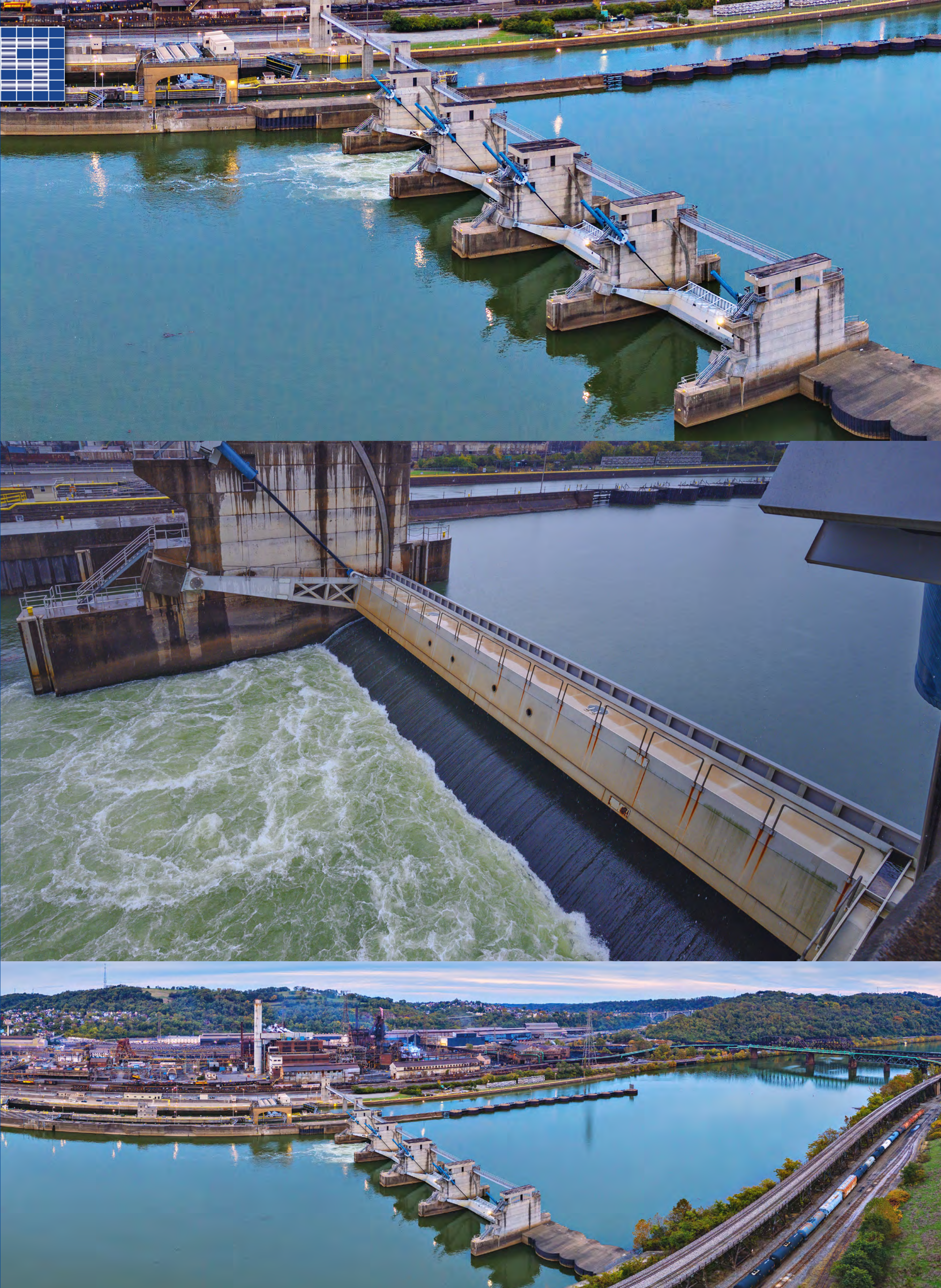
The project continues to move slowly both on from a construction aspect as well as any PPA finalisation. Hydropower continues to be a hot topic in the clean energy movement and will likely pick up momentum as the world continues to reopen.

- Maintain monthly communication with onsite project manager
- Document any changes to the investment expectations
- Monitor the financial reporting, cash flows and accounts



UN SDG	ICMA CRITERIA	ESG POLICY SOLUTION
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p><b>Renewable energy</b></p> <ul style="list-style-type: none"> <li>• Climate change mitigation</li> <li>• Natural resource conservation</li> <li>• Pollution prevention and control</li> </ul>	<p><b>Renewable energy creation</b> - hydropower is a clean renewable source of energy which can be sold via a PPA agreement or via merchant wholesale pricing on hydropower exchanges</p>
 <p>14 LIFE BELOW WATER</p>	<p><b>Energy efficiency</b></p> <ul style="list-style-type: none"> <li>• Climate change mitigation</li> <li>• Pollution prevention and control</li> </ul> <p><b>Environmentally sustainable management of living natural resources and land use</b></p> <ul style="list-style-type: none"> <li>• Natural resource conservation</li> <li>• Biodiversity</li> <li>• Climate change adaptation</li> </ul>	<p><b>Environmental management</b> – the small hydropower market goes through a rigorous environmental approval process to make sure there is minimal impact to the surrounding region</p> <p><b>Biodiversity conservation</b> – the environmental approvals for such projects include aquatic preservation to ensure the natural environment is not negatively impacted</p>
<p><b>ESG RISK MITIGATION</b>   • Project Size under 25mw • Renewable Energy Production</p>		

- ✓ Accounts in balance
- ✓ Regulatory requirements kept to date
- ✓ Costs within range of model
- ✓ Timeline on Track

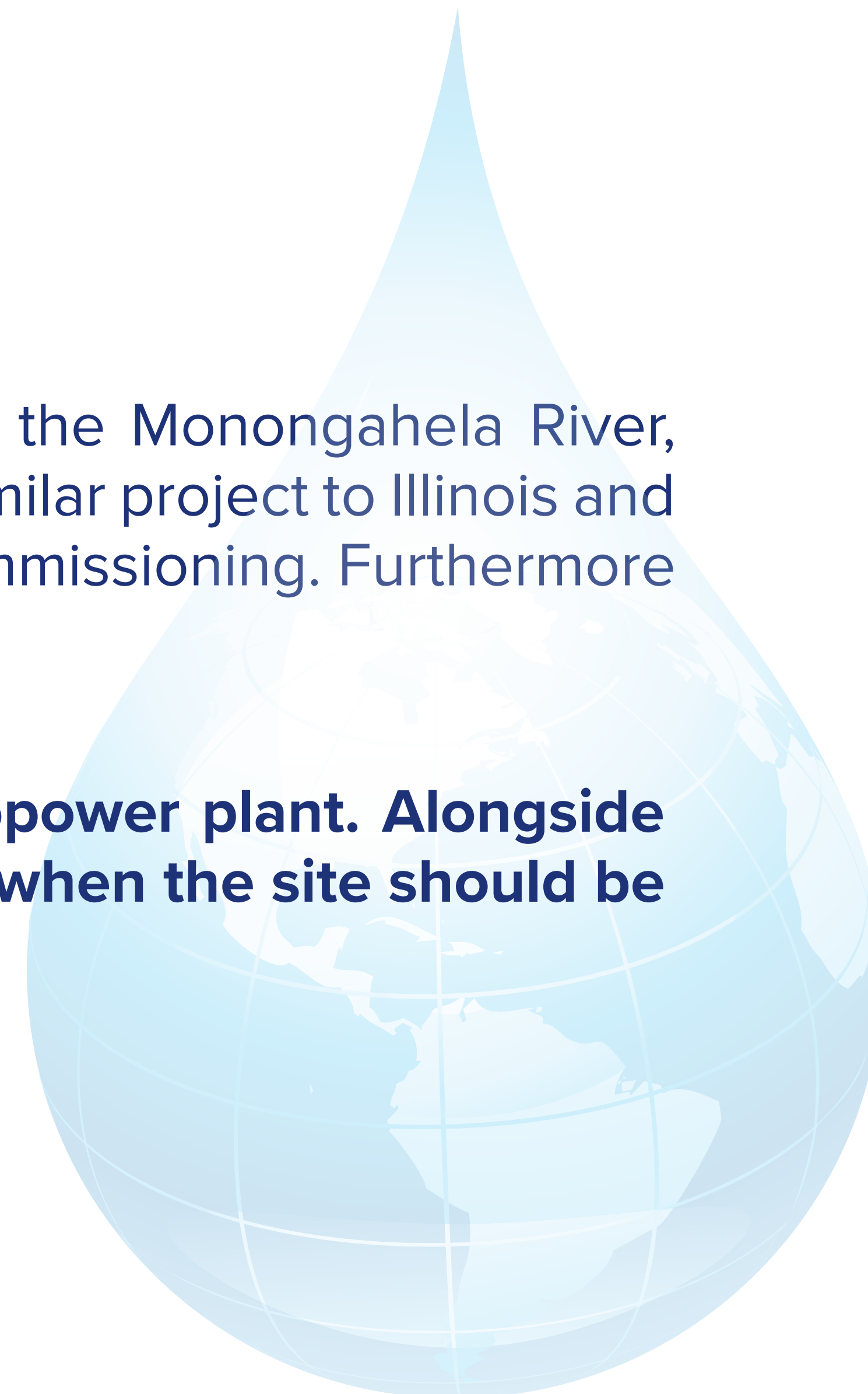




# HYDROPOWER | BRADDOCK, PENNSYLVANIA

**Hydropower, Pennsylvania:** A Lock and Dam Hydroelectric Water Power Project located on the Monongahela River, Pittsburgh. The site has obtained a FERC license (expires 1965) with a 5.25MW capacity. It is a similar project to Illinois and is in an advanced stage in the PPA negotiations to lock in a price for the first few years post commissioning. Furthermore the project has received state grants.

The project is going through remains in its final approvals in order to construct the Hydropower plant. Alongside this step there have been discussions with some local groups to regarding PPA offtakes for when the site should be operational.

- Maintain monthly communication with onsite project manager
- Document any changes to the investment expectations
- Monitor the financial reporting, cash flows and accounts



UN SDG	ICMA CRITERIA	ESG POLICY SOLUTION
 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	<p><b>Renewable energy</b></p> <ul style="list-style-type: none"> <li>• Climate change mitigation</li> <li>• Natural resource conservation</li> <li>• Pollution prevention and control</li> </ul>	<p><b>Renewable energy creation</b> - hydropower is a clean renewable source of energy which can be sold via a PPA agreement or via merchant wholesale pricing on hydropower exchanges</p>
 <p>14 LIFE BELOW WATER</p>	<p><b>Energy efficiency</b></p> <ul style="list-style-type: none"> <li>• Climate change mitigation</li> <li>• Pollution prevention and control</li> </ul> <p><b>Environmentally sustainable management of living natural resources and land use</b></p> <ul style="list-style-type: none"> <li>• Natural resource conservation</li> <li>• Biodiversity</li> <li>• Climate change adaptation</li> </ul>	<p><b>Environmental management</b> – the small hydropower market goes through a rigorous environmental approval process to make sure there is minimal impact to the surrounding region</p> <p><b>Biodiversity conservation</b> – the environmental approvals for such projects include aquatic preservation to ensure the natural environment is not negatively impacted</p>
<p><b>ESG RISK MITIGATION</b>   • Project Size under 25mw • Renewable Energy Production</p>		

- ✓ Accounts in balance
- ✓ Regulatory requirements kept to date
- ✓ Costs within range of model
- ✓ Timeline on Track

## LATEST DEVELOPMENTS

The main areas from last quarter remain at various stages of progress. To elaborate on the current pipeline:

**1** The Hydropower opportunity remains. The timeline remains unclear but has strong demand as the clean tech movement continues to crystallise. We see an increase of demand for REPAs (Renewable Energy Purchase contracts) that are quickly representing a good alternative to normal PPAs. The crises in Texas over the winter has clearly added some risk management tasks in some municipalities and private off-takers.

**2** Food and beverage opportunity is still progressing. However due to the nature and fragmentation of the market it continues to be slow moving. As a result, the opportunity is still being developed from both a local perspective and the macro theme.

**3** Waste water and sewerage for other industries. Water treatment is becoming an issue as discussed last quarter in many industries: mining, oil, aquaculture and other water intensive sectors. This will continue to be an area of interest especially when the technology for such sectors become established.

**4** Carbon linked projects – while we are not looking for direct carbon offset projects, the market is becoming much stronger to the point where we look for carbon linked projects, or even see the potential advantage for our current projects.



# REFERENCES

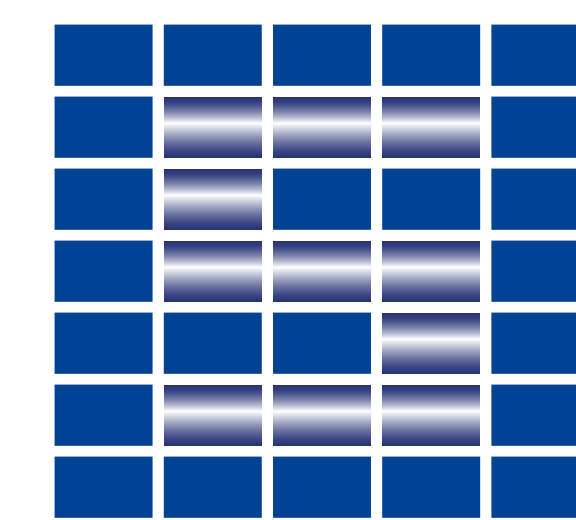
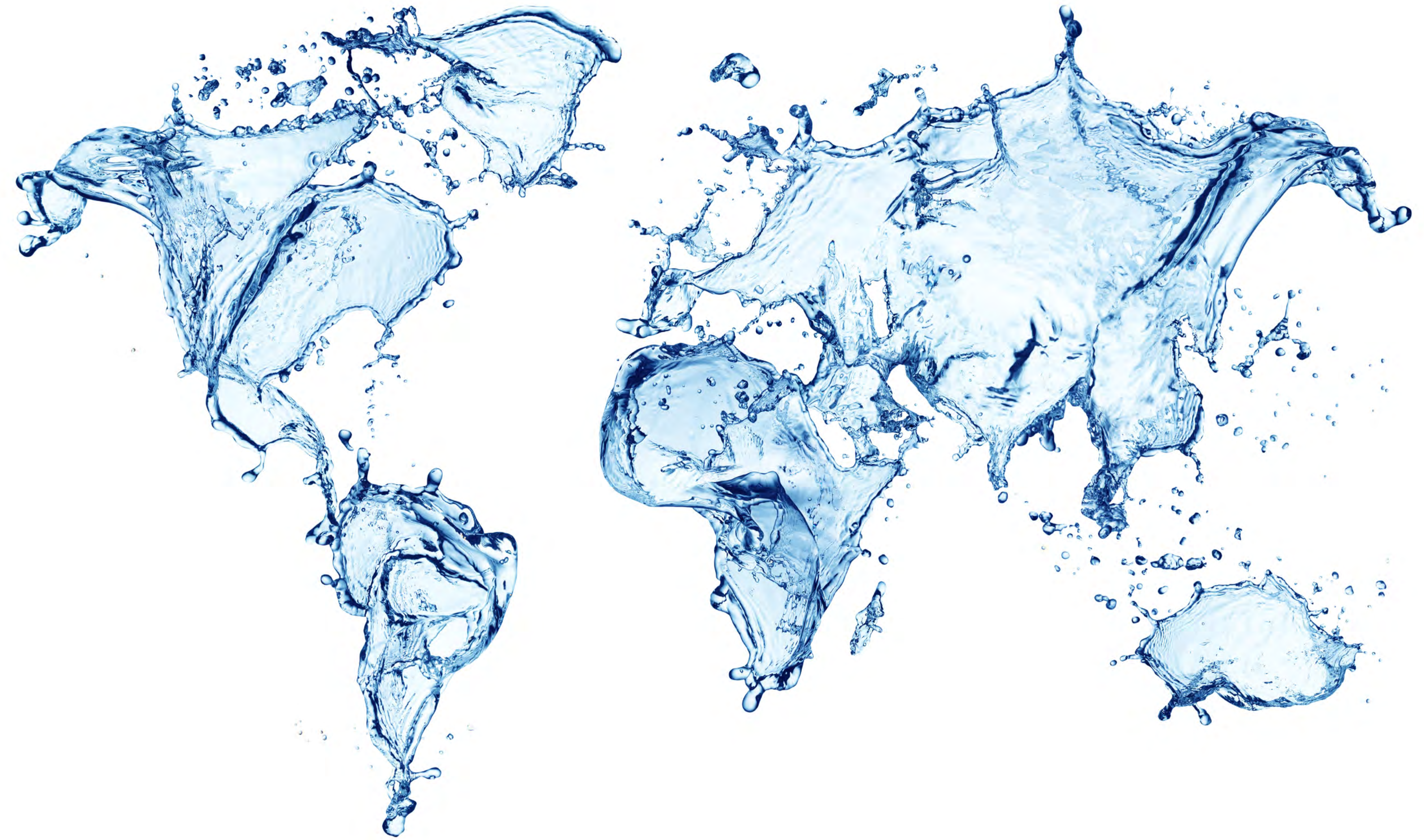
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- 2. The world's first 'infinite' plastic**  
<https://www.bbc.com/future/article/20210510-how-to-recycle-any-plastic>
- 3. Sulzer, Blue Planet unveil CCUS collaboration for greener cement**  
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# SIGNINA CAPITAL AG

Zurich-based Signina Capital AG was established in 2006. Signina is a full spectrum advisory firm in the water infrastructure sector. The team has more than 100 years of combined industry experience. They have placed in excess of USD 1 billion of capital with the private and public sector into environmentally and commercially strategic water infrastructure assets. It is currently overseeing more than USD 500 million of active water infrastructure assets.

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