



**Signina Capital AG
Water Infrastructure**

**Quarterly Water Report
Q3 2017**

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I. Current Project Descriptions

Wastewater plant, NJ: A New Jersey-based Wastewater Treatment Plant where funds were 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 space.

Sustainable Sewerage, Ontario: 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 are also working on a very large portfolio of existing projects to be implemented under the existing investment framework. There are more and more companies and deals coming to light, that help us diversifying from our existing projects. The investment model has not changed, but the reach within Ontario has become broader.

Hydropower, 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.

II. Regional Market Information

News in Brief

- Brookfield issued its first green bond for USD 475m. The bond pays 4.4% p.a. non-amortising until 2032. The bond is secured against Brookfield's 380MW White Pine hydro portfolio.
<https://bep.brookfield.com/en/press-releases/2017/07-12-2017-171822296>
- Pennon Group successfully bought back most of its £300m 6.75% perpetual bond. The bond has been refinanced with a new £300 million perpetual issue carrying an initial coupon of 2.875% and callable in May 2020.
<https://www.bloombergquint.com/business/2017/09/20/pennon-stifles-a-political-nightmare>
- In 2016 USD 81bn was issued (almost double of 2015), a decade after the first green bond issued by the European Investment Bank. Over a quarter of the green debt raised was via Chinese entities and Poland became the first issuer of a sovereign green bond.

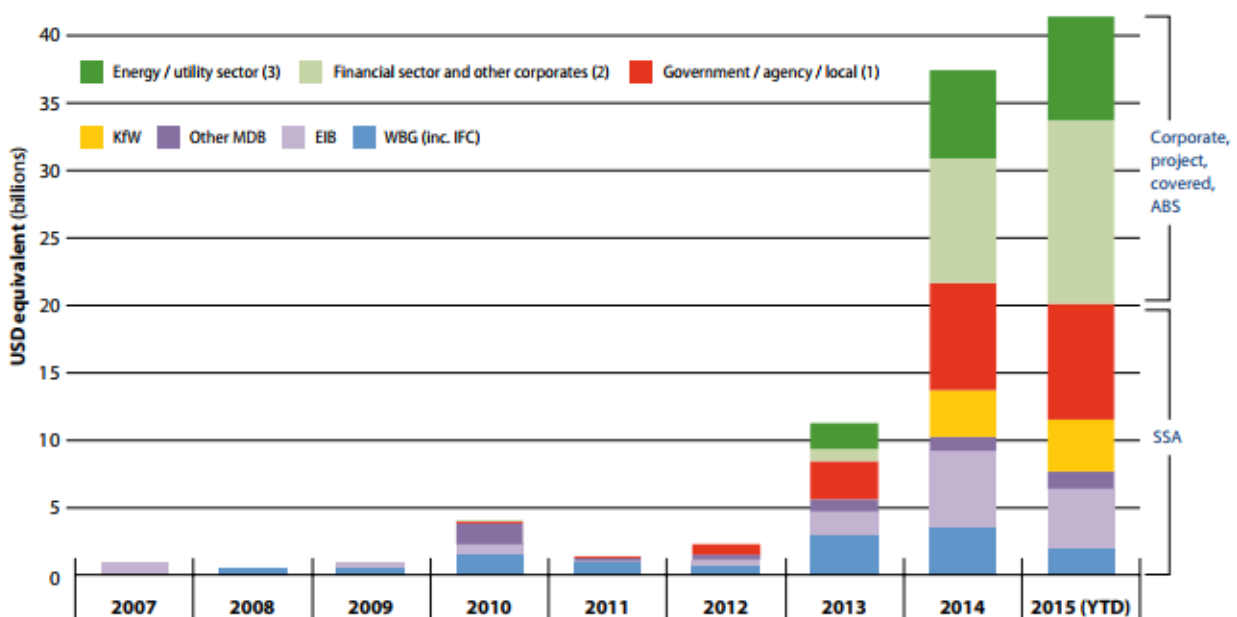
With the growing number of issuances the demand has increased for a robust rating system to which Moody's and S&P are both publishing methodologies for green impact ratings. 2017 looks to have continued growth with various sources estimating issuances to reach well over USD 100bn, if not reaching close to USD 200bn.

<https://www.climatebonds.net/files/files/2016%20GB%20Market%20Roundup.pdf>

The 2017 report is scheduled to be released in Q1 2018.

Green Bonds

In 2007, the European Investment Bank marketed a EUR 600m Climate Awareness Bond, the first green bond. In 2008, the World Bank began its marketing of green bonds with a USD 300m issuance. Since then the market has grown



¹Composition of the Green Bond Market

The market had doubled in 2016 to \$81bn. So what exactly are green bonds?

¹ <https://www.oecd.org/environment/cc/Green%20bonds%20PP%20%5Bf3%5D%20%5B%5D.pdf>

Green Bonds are any type of bond instrument where the proceeds will be exclusively applied to finance new and/or existing eligible Green Projects and which are aligned with the four core components of the Green Bond Principles². There are presently four different types of Green Bonds that exist in the market (Bonds that intentionally mix green and social projects are referred to as Sustainability Bonds which are similar to Green Bonds but have their own specific guidance). They are not considered fungible with bonds that are not aligned with the four components of the Green Bond Principles:

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

Looking at the bonds issued with OPUS, the projects and structure fit the Green Bond concept and ethos. The market and industry continue to grow with 2017 looking to be another record year. The OPUS bonds fit in with the kind of investment which is becoming the norm in the green and sustainable global drive. The increased activity and the current yields bolster our case for smaller projects where yields are not suppressed by demand.

Green Bond in the UK

³*Sizing up Anglian Water's green bond debut*

The first green bond to emerge from the UK water sector attracted £800 million of appetite from investors keen to see their money put to work funding projects which mitigate and adapt to climate change. Was it worth all the trouble? While continental Europe is still debating infrastructure, PPP and why bonds are necessary for fixed income projects, the rest of the investment world is moving on swiftly.

Anglian Water has become the first UK water company to issue a green bond, pricing £250 million of 8-year paper into more than £800 million of demand earlier this month. Having secured an eligibility assessment from third-party provider DNV GL, Anglian marketed the issue via a series of roadshows in London and Scotland, with more than 65 investors understood to have participated, including some which were new to the Anglian name.

"It was good to be able to go out and tell our sustainability story, and to evidence that in the financial markets through a green bond," explained Anglian Water treasurer Jane Pilcher. Although the bond's green credentials attracted a number of continental European funds more accustomed to buying green bonds denominated in €, Pilcher conceded that it is very difficult to determine how competitive the pricing was compared to where Anglian could have printed a regular sterling bond of a similar maturity.

A report published earlier this month on the performance of €- and \$-denominated green bonds in the primary market undertaken by the IFC on behalf of the Climate Bonds Initiative – attested to the fact that green bonds attract a broader range of investors, but conceded that on the whole, they behave "in line with vanilla equivalents". This raises the question of why a UK water company such as Anglian, which enjoys access to a variety of debt markets – including EIB loans, and bonds denominated in £, €, and \$ – would go to the trouble of preparing, marketing and issuing a relatively small green bond which offers little if any price advantage.

"The extra work enabled us to convey what we do as a business into a language that the financial community can understand and relate to," explained Pilcher. "As a business, we report a lot of different metrics, and we've specifically used carbon as our currency of sustainability. If you've invested 10% of that bond, then you can say that your money has saved x tonnes of carbon – that's the commitment that we've given," she told GWI.

The bond's proceeds will be placed into a dedicated capital expenditure account and used to fund projects which help mitigate climate change such as energy-efficient facilities and water conservation, as well as projects which address flood risk. Although the summer break is unlikely to result in a rush of "me too" is-

² <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/GreenBondsBrochure-JUNE2017.pdf>

³ GWI, Vol 18, Issue 8 (August 2017)



sues from elsewhere in the UK water sector, Pilcher is bullish on the prospects for more issuance. "I'd hope that more companies will do the same, and if the economics work, there's no reason why we can't look at a € green bond in the future," she told GWI.

US & Canada Contract Operations

⁴*Utility Partners guns for O&M growth after successful integration into H2O Innovation*

Despite a faultless contract retention record over the past year, H2O Innovation's operating arm will have to get acquisitive if it wants to beat the industry's modest single-digit organic growth rate. CEO Frédéric Dugré set out his vision for the business.

Listed Canadian water group H2O Innovation has assembled a top-flight advisory committee to guide it through a new phase of organic and inorganic growth in the North American contract operations market. Since entering the sector last July through the acquisition of Utility Partners, the group has maintained a 100% renewal rate on existing contracts, diversified its portfolio by entering the state of New Mexico, and appointed key business development staff.

The company aims to grow between 5-10% by growing recurring revenues. In July, the company brought on Elisa Speranza, the former head of CH2M's operations business, and Len Graziano, the ex-CEO of Severn Trent Services, to sit with Lisa Henthorne on its O&M committee, whilst bringing Utility Partners veteran Greg Bishop back into the fold as head of business development for the O&M pillar.

H2O Innovation's original rationale for entering the O&M market stemmed from its frustration at seeing third parties contracted in to operate the bespoke water treatment systems that the company was supplying to its customers, particularly in the oil and gas industry. When it sold Utility Partners last year, parent company OpTech retained a legacy portfolio of public works contracts in Florida and Georgia, but agreed a non-compete clause with H2O Innovation relating to water and wastewater contracts.

Dugré believes that H2O Innovation's expertise in membrane filtration gives it an edge when pitching for O&M contracts where the client lacks specific knowledge in that field. H2O is confident that the first acquisition will come during the current fiscal year (which began on 1st July), and emphasised the successful integration of Utility Partners in under a year as a solid foundation on which to make future acquisitions. While the purchase of Utility Partners gave an instant boost to H2O Innovation's recurring revenue base, the company aims to combine the existing process engineering knowledge with its newly acquired operational expertise to capitalise on design-build-operate opportunities in North America.

⁴ GWI. Vol 18, Issue 7 (July 2017)

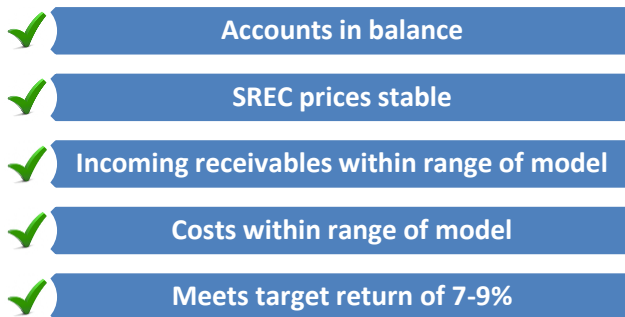


III. Ongoing Projects

Wastewater plant, NJ:

The summer months provided energy creation results in line with expectations. The project is running smoothly with no issues to address.

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



Sustainable Sewerage, Ontario

There have been three main developments of note in the past quarter:

1. Clearford was awarded the Frost & Sullivan's 2017 Global Enabling Technology Leadership Award with its Clearford One™ Water Treatment System. Every year Frost & Sullivan present the award to a company that has developed a pioneering technology that enables the development of new products and applications. It recognizes the high market acceptance potential of Clearford's technology.

The award is based on Clearford's decentralized packaged water and wastewater treatment system. Such a system provides a sustainable and economical alternative to traditional centralized treatment systems. The efficiency and cost-effective nature of the product technology offers a solution to the growing population and industrialization of isolated locations in need of regulatory approved solutions. Details can be found here:

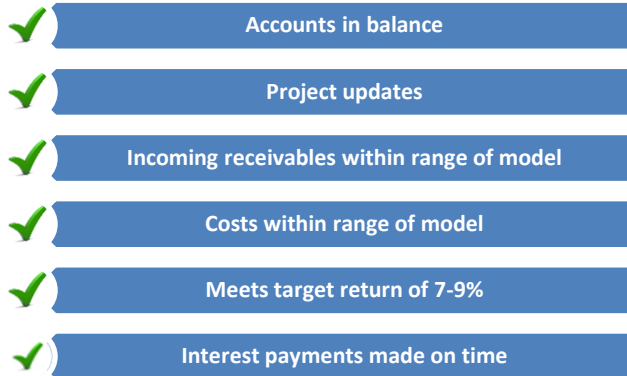
<https://ww2.frost.com/news/press-releases/frost-sullivan-recognizes-clearford-water-systems-enabling-technology-leader-its-clearford-onetm-water-treatment-system/>

2. Clearford announced in September a Memorandum of Understanding with Tata Projects Limited; an engineering, procurement and construction services company of the Tata Group, and one of the fastest growing infrastructure companies in India. Under the terms of the Agreement, Tata Project Limited, Clearford and its subsidiary Clearford India Private Ltd. will jointly pursue opportunities to deliver the Clearford One wastewater system for projects in India and globally on a non-exclusive basis. Initial project efforts will be focused on the States of Tamil Nadu, Punjab and Rajasthan.

This is a great partnership for Clearford and has vindicated the Jambudiyapura project. The technology solution had been creating a lot of traction in India where sanitation is one of the hot topics for Prime Minister Modi.

3. We have been continuously looking at a variety of operating assets that may be available to purchase. This is an ongoing process with due diligence under way on a variety of wastewater operating assets in Ontario.

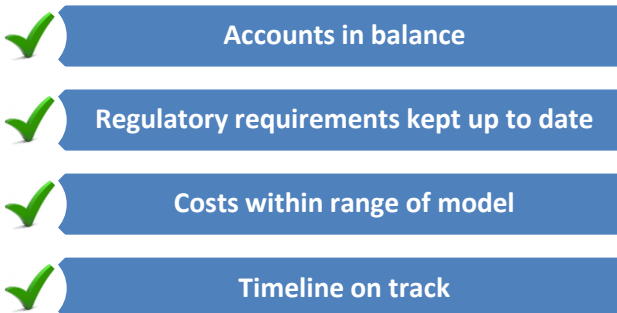
- Maintain monthly communication with Kevin Loiselle and Mark McGuire regarding projects
- Document any changes to the investment expectations



Hydropower, Illinois

There has been little to update since the last quarter. The site is still progressing as planned and is in the final phase of pre-construction work. Expectations remain the same with the main work to begin in late autumn. We can leave that for now.

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



IV. Latest Developments

Latest Actions

Similar to last quarter there are potential extensions to the New Jersey program with the installation of more solar panels on surrounding sites. The to-be-installed solar plants will allow us to receive very high income as with the current investment. The position is still being researched with a due diligence process to begin before the end of the year if everything matches up.

The various operating assets in the sustainable sewage sector are currently going through a due diligence process as initially discussed in the last report. These assets create a stable cash flow but need to be scrutinised heavily as a package of contracts will likely be purchased. It is difficult to purchase contract by contract as we look at smaller contracts which large operators do not consider. The H2O strategy above indicates the industry shift to operating assets to create stable cash flows to supplement the design and build contracts of such businesses.

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