



SOLAR|21 NEWS

Q1 2018

TANSTERNE
BIOMASS
PLANT IS COMMISSIONED

SUNNY OUTLOOK
OUR ITALIAN SOLAR FARMS BENEFIT
FROM A SUNNY SUMMER

Solar 21, Premier Office Centre, Rathcoole, Co. Dublin
Tel: +353 (0)1 458 6599 Email: marketing@solar21.ie

WELCOME TO SOLAR 21'S NEWSLETTER



SANDRA DONOVAN, OPERATIONS DIRECTOR.

Welcome to Solar 21's quarterly newsletter.

2018 is off to a fantastic start at Solar 21 as we announce the commissioning of our flagship project, the 22MW Tansterne Biomass plant in Hull. We are delighted that the plant is exporting clean power to the grid. As for biogas, we are working away on the pre-commencement planning conditions for our first biogas plants, scheduled for development this year.

We believe it is important to align ourselves with partners promoting the green agenda and the move to a low-carbon economy both at home and abroad and to this end we have joined Sustainable Nation Ireland and the Renewable Energy Association in the UK.

It has been a year of great achievement for our staff too. Silvia Raineri, Solar 21's Energy Engineer, won the award for best overall academic performance in DIT's MSc in Energy Management while Senior Investment Analyst Brian Tiernan completed his first Ironman in Italy in excellent time. We look forward to another successful year ahead for our staff, business partners and investors.

SUMMARY

- 2 AN EXCEPTIONAL YEAR FOR OUR SOLAR PORTFOLIO
- 3 FIRST EXPORT OF CLEAN ENERGY FROM TANSTERNE
- 4 BIOGAS SUCCESS STORY
- 4 GIVING BACK
- 4 OUR TEAM - BRIAN TIERNAN

SOCIAL MEDIA

-  www.solar21.ie
-  www.twitter.com/solar21_
-  www.linkedin.com/company/solar-21

SOLAR

AN EXCEPTIONAL YEAR FOR OUR SOLAR PORTFOLIO

Solar production benefitted from a double boost last year in the form of excellent, sunny weather over the spring and summer and the effects of our inverter revamping activity.

Thanks to our efficient asset management and preventative maintenance activities we were perfectly poised to exploit the good sunshine, that Italy experienced particularly last Spring, resulting in strong production and consequently revenue.

We upgraded our monitoring system following the inverter revamping, so we can now monitor every part of our PV plants, from module temperature, to strings performance and inverter data, allowing us to quickly overcome any technical problems that arise.

The replacement of around 80 underperforming modules (solar panels) in September enabled us to avoid even minimal losses.

We also undertook the mammoth task of cleaning our modules with deionized water - that's over 4,000 modules per solar plant. This resulted in a 5% increase in productivity.

This year we have just completed the first round of preventative maintenance of the year, in time for the start of the sunny season, which begins in March.



Sant'Alieni solar plant benefited from inverter revamping last year

TANSTERNE

FIRST EXPORT OF CLEAN ENERGY FROM ADVANCED BIOMASS PLANT



The moment we have been working towards with all our partners on Tansterne Biomass has come. On 15th February, Northern Powergrid, the electricity distributor for North East England, confirmed that power was exported from Tansterne Biomass to the national grid.

The plant is one of the most compact and efficient clean power producers anywhere in the world, thanks to the combination of a fluidised bed boiler and a power module patented by plant designers

HRS Energy and built by Hull steel manufacturers CF Struthers. Tansterne will produce the cheapest renewable energy from biomass (in terms of cost per megawatt) of any comparable facility.

The biomass in question is grade-C waste wood which originates in the UK, most of it from the local area. It is important to emphasise that this wood would otherwise be landfilled. Instead, it is producing electricity for homes and businesses in the Hull area.

The plant will now begin generating income from its power purchase agreement and government-backed incentives for renewable energy generation – ROCs (Renewable Obligation Certificates).



Plant Manager, Matthew Hill, heads up the team charged with managing the day to day operation of the plant and ensuring continuous and efficient production.



We thank you for supporting this ambitious renewable energy project, which will power over 30,000 homes with clean energy whilst producing approximately 162,000 tonnes of carbon dioxide less than a similar-sized coal plant every year.

BIOGAS

RENEWABLE HEAT INCENTIVE (RHI) PROVES ITS WORTH IN BRITAIN

Smart renewable energy policy and efficient implementation works. While Ireland lags significantly behind on renewable energy policy implementation, a report published in February by the UK National Audit Office finds that the RHI has been instrumental in moving the UK towards its renewable energy targets. For example, it has supported the production of 22.7TWh of renewable heat to date, enough to heat over 1.8 million homes for an entire year.

We are scheduled to begin development of the UK biogas plant portfolio next quarter. These plants

will benefit from RHI tariffs. Discharge of pre-commencement planning conditions has been in progress since Q4 2017 and we expect all outstanding conditions to be resolved this quarter.



"The RHI is an essential policy tool that is supporting the decarbonisation of Britain's heating sector as necessitated by our climate targets."
James Court, Head of Policy and External Affairs at the Renewable Energy Association.

GIVING BACK IRONMAN - ITALY

A full Ironman is one of the most grueling races that an athlete can complete. It consists of a 3.8km swim, a 180km bike ride and a 42km (marathon) run. Triathletes see it as the peak of long-distance racing. A consistent runner, our own Brian Tiernan decided in December 2015, that he wanted to become an 'Ironman'. On sharing his goal with the team, Solar 21 was delighted to get behind him to offer support and sponsorship.

An anterior cruciate ligament injury delayed Brian's dream until 2017 but it didn't dampen his resolve. On the 23rd of September, he was part of the approximately 2,000 athletes in the inaugural Italian Ironman in Cervia, on the east coast. He completed the race in a respectable 12hrs and 16min. Brian says, "It was the euphoric culmination of 12 months of training, many hours in the pool, in the saddle and running around the back roads of Rathcoole!" Well done Brian!



Brian Tiernan crosses the finish line.



OUR TEAM

BRIAN TIERNAN Senior Investment Analyst

Brian's role involves finding and scrutinising renewable energy project opportunities. He is one of the closest people to any one project as it makes its way from due diligence through to construction and on to commissioning.

Brian joined Solar 21 in 2015 after a decade in financial services working for companies such as Citi and JP Morgan. He holds an Investment Management Certificate from CFA UK – the UK branch of the global association of investment professionals. A passionate environmentalist, Brian holds a Masters in sustainable energy finance.

Training for triathlons will have to take a back seat in the future because Brian has recently welcomed his son Joseph into the world.