



WCE Christmas 2020 newsletter

Dear Members,

What a year 2020 has been! Very difficult times for so many and I hope that you have all managed to keep safe. But while many sectors of the economy have really suffered, the world of renewable energy has come through almost unscathed. Global investment levels have held up, and the cost of renewables keeps coming down, so much so that even the once sceptical International Energy Agency (IEA) says that renewable energy is now the *“cheapest electricity in history”*. Over the last two years it has increased its projections for future renewable energy installation by almost 50% (and it is still probably being pessimistic.) The IEA also says that *“solar power will lead the expansion of renewables in the next 10 years”* and that *“clean power is set to meet 80% of global electricity demand growth over the next decade.”*

This matters a lot, because the IEA is the go-to organisation for global policy makers, not merely a campaigning lobby group. Similarly, Lazard, mainstream asset managers, say in their latest report: *“as the cost of renewable energy continues to decline, certain technologies (e.g., onshore wind and utility-scale solar), which became cost-competitive with conventional generation several years ago on a new-build basis, continue to maintain competitiveness with the marginal cost of selected existing conventional generation technologies.”* Which is a long-winded way of saying that renewables can cost less than just the fuel that is burnt in fossil generation.

We are truly at a tipping point in how the world secures its energy. The last decade has witnessed extraordinary reduction in the cost of energy and in the next decade the same will happen for energy storage, making the “problem” of intermittency an irrelevance. We will move to a connected world where a combination of different battery types, the electrification of heat and transport and mass production of green hydrogen make fossil and nuclear power redundant.

Globally, national commitments and policies are accelerating these changes. China has committed to net-zero by 2060, Canada, Japan and South Korea by

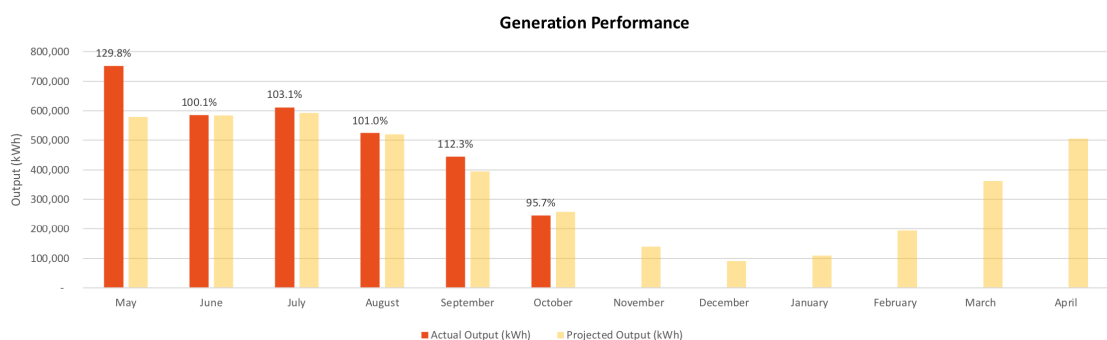


2050. The US, under Biden, has a Green Deal, as does the EU. These measures will mobilise trillions of investment.

Closer to home, the government has at last published the Energy White Paper, which has been well received by most of the industry media and commentators. Hugh McNeal, CEO at Renewable UK, said: *“Today’s white paper provides greater clarity to the companies investing across the UK to deliver our net zero emissions target. Wind and renewable energy will be at the centre of our future energy system, providing the clean electricity and green hydrogen we need to decarbonise our economy.”* Regen, my go-to for this sort of comment, welcome its release, but noted that *“it is just the start of a long period of re-shaping the energy sector.”* Still, for an administration with a prime minister who in 2013 said that *“wind farms couldn’t pull the skin off a rice pudding”*, it is quite a turn around. On a personal note, I find the way they are promoting offshore wind as a means of industrial revival especially poignant, - I trained as a ship designer and watched with sadness the declines of the UK’s shipbuilding industry.

Homestead performance

On a more local level, our Homestead project has had a good year. To date (halfway through the reporting year) the output is about 8% ahead of target and while wholesale power prices have dropped as a consequence of the pandemic, our income has been protected by our FIT contract and export tariff.



In the past our project has been plagued by loss of output due to constraints on the electricity network. Over the last couple of years these issues have been very limited and we learnt recently that by 2023 there will be a new transformer installed near Fawley, which will further reduce the likelihood of outages. (The export of electricity from the Island is not just constrained by the cables across the Solent, but also by congestion on the mainland in the Fawley/Marchwood area.)



Changes in the electricity industry

We are maintaining regular contact with SSEN (our local electricity company) through meetings chaired by Jim Fawcett at the IW Council and doing our best to influence their submission for RIIO-ED2. This is industry jargon for the second **R**evenue=**I**ncentives + **I**nnovation + **O**utputs - **E**lectricity **D**istribution price control review. Phew, there is so much jargon in the electricity industry! In essence, this is the process whereby OFGEM (the electricity industry regulator) directs how the electricity companies run their businesses and how much they can charge their customers.

Historically, the regulatory focus has been on the delivery of electricity and keeping down the costs to the consumer. But with the government's ambitious targets to cut emissions by 68% before 2030, there is going to have to be a lot more electricity generation connected to the networks, so that will require investment in infrastructure as well as making the networks smarter (the "smart grid"). If SSEN can secure agreement to invest more in supporting additional generation, we in turn may be able to develop new generation projects and help support the Island in achieving net zero by 2030.

Other Projects

In the meantime we are working on other ideas. We secured grant support from RCEF (Rural Community Energy Fund) to look at the possibility of using solar PV to power the trains on the Island and also to study the potential for hydrogen generation from our Homestead solar farm. Both these projects are due to report in the first quarter of next year.

As part of the refinancing process (more on that below) we have received funding from Power to Change to develop several different project ideas. This has allowed us to employ Suzie Mundell to help with project management and administration. Suzie has been doing a great job of keeping track of our work and also updating the website and keeping our Facebook pages up to date. The grant is already funding work by Ricardo to help us better understand and challenge the network constraints, as well as starting a project to look at the feasibility of smart solar powered water heating for the tourist market. The Power to Change funding will also allow us to develop a biodiversity plan for the Homestead site next year.



Refinancing

The refinancing work being undertaken by Finance Earth (the rebranded Environmental Finance) for CORE is taking longer than expected for a whole host of reasons, not least COVID. But they are making progress and expect to complete the process during the first quarter of next year. If all goes to plan, this will reduce the cost of our borrowing and thus improve the finances of our project.

Tidal energy

After a long period in the doldrums (or should it be slack waters?) it appears that the Island's very own tidal project may be coming back to life. PTEC, the project promoters, have teamed up with EMEC (<http://www.emec.org.uk/marine-energy/>), a very experienced outfit which already operates an array of wave energy and tidal energy testing sites. There is more information at: <http://www.emec.org.uk/press-release-emec-enters-partnership-with-ptec-to-grow-uk-tidal-energy-market/>, with the headline "*Positive market signals from the UK government have ignited a partnership between two Scottish and English islands to get the infrastructure ready for commercial scale tidal energy roll out*".

WCE is in fact working with EMEC (in partnership with Ricardo) on our hydrogen project, so I hope that this will lead to more cooperation between the Orkney Islands and the Isle of Wight. The Orkneys have the problem of too much wind generation in the winter whereas our problem is too much solar in the summer. If only we could wire the islands together! But failing that, we have great potential to exchange ideas and experience.

2021

I hope that you all have the best Christmas that you can in the circumstances, but the year does end on some positive notes. With the ever stronger global commitments to fighting climate change and with COP 26 coming up, 2021 could be a momentous year. Exciting times to look forward to.

Colin