

**Environment and Sustainable
Communities Overview and Scrutiny
Committee**

8 October 2021



**Climate Emergency Response Plan –
Renewable Energy Generation and New
Projects**

**Report of Alan Patrickson, Corporate Director of Neighbourhoods
and Climate Change**

Electoral division(s) affected:

Countywide.

Purpose of the Report

1. To provide an update on Renewable Energy Generation in County Durham
2. To provide an update on new projects contributing to the Climate Emergency Response Plan

Executive Summary

3. The Department for Business, Energy, and Industrial Strategy (BEIS) releases data on renewable energy capacity and generation on an annual basis which is two years in arrears.
4. Although wind makes a significant proportion of capacity and generation there has also been a steady rise in solar energy which makes an important contribution.
5. Services and Teams continue to develop projects during 2021 some of the most recent schemes include:

DCC Projects

- Woodland Primary School
- Meadowfield Depot
- New/additional Solar PV schemes on buildings and land
- Solar car ports in car parks

- Wind turbine exploration
- Durham City district heat network development
- Lumley school integrated solar

Countywide Projects

- Seaham Garden Village
- Domestic heating retrofits
- Electric van – try before you buy scheme
- Community electric vehicle charging network
- Borrow a bike scheme
- Project Gigabit Broadband Voucher scheme
- Marine Carbon
- South Stanley SUDS Accelerator Project

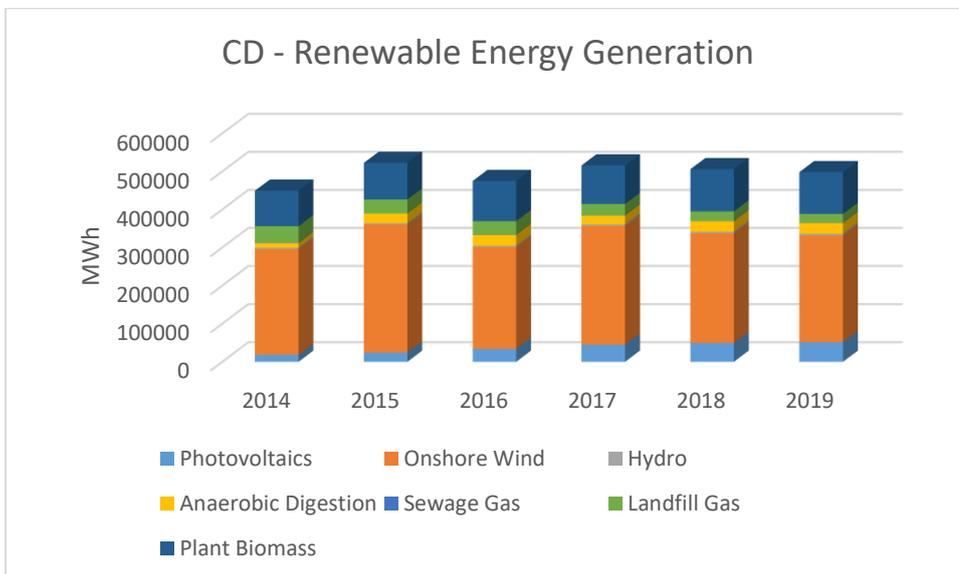
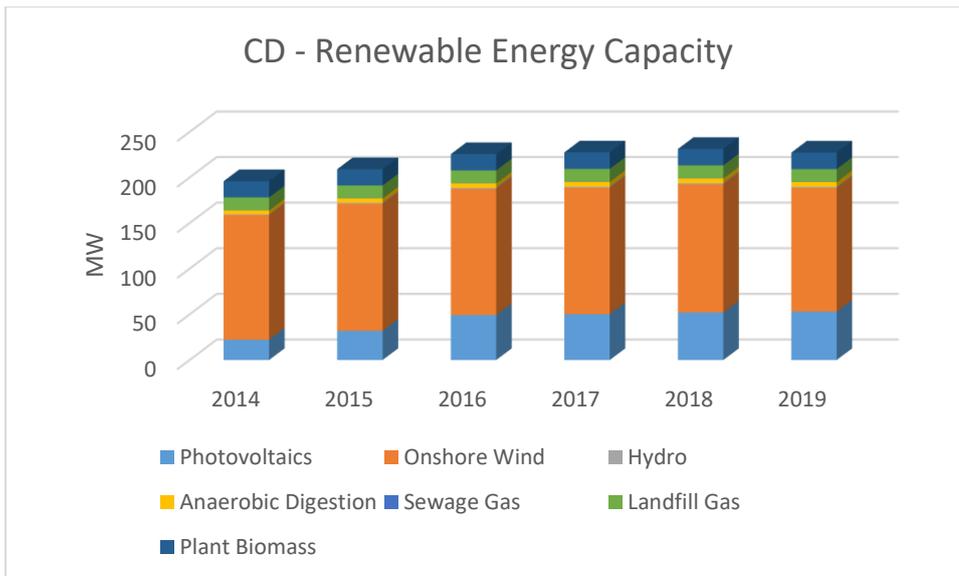
Recommendation(s)

6. Environment and Sustainable Communities Overview and Scrutiny Committee is recommended to:
 - (a) Note the renewable Energy Data and progress made on new projects in 2021

Renewable Energy generation

7. Data from BEIS on renewable energy capacity and generation is released on a yearly basis¹ and is two years in arrears. We are currently awaiting data for 2020. The graphs below show capacity and generation in years 2014 – 2019.
8. Capacity reduced from 2018 to 2019 by 4MW, due to a reduction in onshore wind capacity. This is presumably from a number of turbines being removed. Generation also reduced during this period by 7000MWh.
9. Wind still makes up the most significant proportion of capacity and generation, however solar has been steadily rising since records began and also makes an important contribution.

¹ <https://www.gov.uk/government/statistics/regional-renewable-statistics>



New Projects – DCC (Developed during 2021)

10. The Low Carbon Economy Team have continued to develop projects this year the following represents some of the more recent schemes.
11. Woodland Primary School is a small rural school built in the 1950s of traditional construction and at 560square metres is equivalent in area to around three large detached houses. It is heated with Kerosene and not connected to the gas network. A bid to Round 2 of the PSDS was submitted in April 2021 which was successful to replace the boiler with air source heat pumps together with solar PV and other energy efficiency works. Work is ongoing at present and will cost a total £119,733 (all grant funding) and will save approximately £6000 in fuel costs (April 2021 prices) and 4.9t of CO2.

12. **Meadowfield Depot** - Following a grant of £491k, work has begun on a number of interventions at Meadowfield Depot, including: Replacing some of the gas fired workshop heaters with electric equivalents; Replacing the air handling unit for office areas with a new, high efficiency, heat recovery unit; An extension of roof mounted solar PV; Automatic speed gates and LED lighting
13. **New / additional Solar PV schemes on buildings and land** - We are aiming to add to the 32 sites already with Solar PV by funding more solar arrays to new sites and adding to ones already existing. These include leisure centres, depots and crematoria
14. **Solar Car Ports in car parks** - We have been investigating the use of solar PV in car parks for a number of years, but due to higher capital costs it has never been possible. We have recently been awarded funding from a successful EU Cities Fund bid (the only UK project to get funding - 221 bids received across Europe. 65 approved). We will get 60,000 euros to appoint a consultant to develop a commercial, investable business case to install solar car ports, along with batteries, EV charging, etc and green infrastructure on larger car parks. The partners are DCC (Transport involved), Durham University and Co Durham and Darlington NHS Trust
15. **Wind Turbine exploration** - We have been exploring the potential for new micro/small scale wind installations across the County that could help power Council assets. It is hoped that a number of sites may prove to be viable.
16. **Durham City District Heat Network Development** - We have been investigating the potential for district heating in Durham City for a number of years. Following a Energy Masterplanning study in 2017, the Riverside area was regarded as a potential viable opportunity. We have recently been successful in a funding application to BEIS to support the development of a detailed business case to explore in detail viability. Consultants are about to be appointed and will report back findings in March/April 2022
17. **Lumley School integrated solar** - The need for a new roof was identified at Lumley Junior School. Construction Consultancy Services (CCS) approached the LCE team to ask if there was the possibility to develop an integrated solar scheme. Designs were developed and a funding package put in place, with a small grant from the LCE Climate Change Fund and a loan which the school took out with Schools finance. The project will pay back within 10 years and we are actively looking at other re-roofing schemes where we could implement a similar model.

New Projects - Countywide

18. **Seaham GV** – Work ongoing with the Coal Authority and development partners to supply heat from Dawdon Pumping station (mine water) to supply 1500 homes and commercial buildings proposed at Seaham Garden Village with low carbon energy. The Council are in the process of negotiating the value and purchase of the land. Planning consent for the Energy Centre was given in March 2021. Following the completion of the financial model, it is proposed that the delivery model will be through a Concession contract. Soft market testing is now complete, and a number of different utility/energy companies have expressed an interest in becoming involved in the project.
19. **Domestic Housing Retrofits** – Housing Regeneration have been highly successful in gaining funding for a number of housing retrofit schemes over 2020/21 and have more applications in for 2021/22. LAD1 bid successful for £1.8m retrofit project in Chilton and Dean Bank. LAD1b bid successful for further £3.8m. 43 Renewable Air Source Heat pumps and first time central heating systems have been installed in off gas grid homes across the County. LAD3 bid submitted for further 500 domestic retrofits. Awaiting outcome.
20. The Energy Company Obligation (ECO) requires Energy Supply Companies to supply grants to install energy efficiency measures i.e. central heating boilers and insulation measures in the homes of fuel poor households. Currently ECO phase 3 (ECO3) provides £640 million per annum and ends in March 2022. ECO phase 4 (ECO4) will commence in April 2022 when ECO3 ends. This will increase national funding for fuel poverty grants from the Energy Supply Companies to £1 billion per annum from 2022-2026.
21. In the latest figures (April 2021) released by the Department of Business and Energy Efficiency (BEIS), Durham County Council has the 4th highest uptake of ECO3 fuel poverty grants nationally, up from 6th nationally in 2020. Between April 2020 and August 2021, a total of 1,724 fuel poor households have been assisted and received an ECO3 grant for energy efficiency measures equating to over £2.9m of external funding drawn down into the county.
22. **Electric Van, Try Before you Buy Scheme** - Four EV vans have been purchased - two for delivery early autumn 2021, others no fixed delivery date yet, to be loaned to SME's considering moving towards EV's. Two year project with vehicles being retained by fleet services after project.
23. **Community EV Charging Network** – SOSCI delivering 200 charge points (£4m project £2.97 from Innovate UK). New applications successful in 2021 include WEVA – (Weardale electric Vehicle

Accelerator), which is a national demonstrator project and plans to fit 10 EV charging points across the front of Stanhope, over 8 sites all within a 5 minute walk of each other. Research told us that that is what residents were willing to walk between each charge point and DOCs (Durham Other Charge points) – This was an application for 50 EV charging points in support of the parish councils to have a charge point of their own. This will support site not covered through the SOSCI project

24. **REV UP** - The REV UP project (Regional electric vehicle unified plan) is a research project with a key output to develop a standardized (and integrated) process (a guide or template) for various local authorities (e.g. LA7 and also possibly TeesValley CA), plus regional organisations and groups (e.g. NE Energy Hub, Emergency Services) to work together to be able to submit large-scale applications for blocks of OZEV funding to install hundreds/thousands of EVCPs across the region. The project will also look at a new concept of EV charging where the local authority does the underground DNO work prior to going out for an installer.
25. **Borrow a Bike Scheme** - Pilot scheme a success in Shildon. The scheme enables residents who do not have access to a bike the opportunity to try cycling as a means of travel. Launch of second site in Durham (Abbey Sports Centre) in August 2021, with Stanley (Louisa Centre) to follow (date tbc). Access for 2 other sites tbc.
26. **Project Gigabit Broadband Voucher scheme** - DCC committed £500k top-up to the scheme in September 2020, effectively doubling the funding amounts available to properties in County Durham with speeds of 30Mbps or less. Digital Durham has undertaken a co-ordinated approach to the GBVS, working to link up GBVS registered suppliers and communities. This has led to a higher interest in the scheme than initially anticipated resulting in the initial £500k DCC top-up funding was fully committed to projects in April 2021. Sign off for an additional £1m top-up was agreed in May 2021 to enable more projects to progress. A deadline of 24 September for the approval of new projects and voucher claims by suppliers, has been imposed by DCMS ahead of a regional procurement to contract for additional gigabit-capable broadband coverage. The GBVS is set to reopen once a supplier has been awarded the contract (estimated Q1 22/23)
27. **Marine Carbon** - Significant progress has been made in the past financial year with collaborations in place for oyster seeding and kelp growing. Oyster nurseries have been installed and a programme of habitat restoration is now being developed. Initial research and site selection work on kelp progresses with on site installation of pilot sites anticipated this year.

28. **South Stanley SUDS Accelerator Project** - Is a multi-partner project, led by Durham County Council, exploring how SuDS can be used as a mechanisms to create more resilient, greener urban spaces which are shaped by their residents. This six-year project, with a value of £6M, is one of 25 projects across England sponsored by DEFRA funded through the new Flood and Coastal Resilience Innovation Programme. This Programme fulfils a key commitment of the government's policy statement on flood and coastal erosion and the Environment Agency's National Flood & Coastal Erosion Risk Management Strategy to develop and test new approaches to tackle the threat of flooding and coastal change.

Conclusion

29. Members will be aware of the work undertaken and the range of projects currently being developed.

Author(s)

Stephen McDonald

Tel: 03000 265537

Rosalind Farrow