



RHONDDA CYNON TAF COUNTY BOROUGH COUNCIL

CLIMATE CHANGE CABINET STEERING GROUP

10 NOVEMBER 2021

UPDATE REPORT ON KEY ENERGY GENERATION PROJECTS AND RELATED ISSUES

REPORT OF THE DIRECTOR OF CORPORATE ESTATES IN DISCUSSION WITH THE CABINET MEMBER FOR CORPORATE SERVICES

Author(s): David Powell, Director of Corporate Estates and Anthony Roberts, Head of Energy & Carbon Reduction.

1. PURPOSE OF THE REPORT

- 1.1 The purpose of the report is to provide a further update to the Climate Change Cabinet Steering Group with regards to the work underway on the development of renewable energy projects and certain other Carbon Reduction related issues,

2. RECOMMENDATIONS

It is recommended that:

- 2.1 The Steering Group Members read and comment on the contents of this update report as part of the ongoing work of the Climate Change Cabinet Steering Group.
- 2.2 A future report is presented to the Steering Group on the Solar Farm Installation, to highlight and realise the growing potential of these particular proposals.
- 2.3 Further reports are presented to the Steering Group in 2022 providing further updates on progress.

3. REASONS FOR RECOMMENDATIONS

- 3.1 The contents of this report provide background information and key updates pertinent to the Climate Change Cabinet Steering Group. It provides an update on the proposals for the Council to build and finance potential solar and wind schemes that will make a significant

contribution to the Council achieving its Net Zero Carbon target. It also provides an update on other key strategies and plans to reduce the Council's Carbon impact.

4. BACKGROUND

- 4.1 The Corporate Estates Energy team has previously reported on the ongoing work to investigate the potential of using RCT owned land for the development of major renewable energy projects for both wind and solar generation, with the assistance of the Welsh Government Energy Service (WGES). These are projects which would be primarily developed by the Council, either exclusively or in partnership with other stakeholders, and as such would both contribute to the increase in the renewable energy provision and carbon reduction in the area, whilst also making a positive economic contribution to the financial situation of the County Borough, which could then be invested in further related improvements or other services for the benefit of citizens.

5. UPDATE ON RENEWABLE ENERGY PROJECTS

5.1 Solar Farm Installation.

An outline timeline and budget proposal has now been discussed and agreed with the assistance of the Welsh Government Energy Service (WGES). A High Voltage (HV) specialist has been appointed to advise on the Private Wire connection to a local facility, and Geotechnical / Topographical Specialists have been engaged to explore, examine, analyse and report on the ground conditions at the site. Specialist Lawyers have also been appointed to draft heads of terms for the private wire connection, and this stage of development is now nearing a conclusion.

It should be noted that the project was described in previous reports as a 5MW Solar Farm and was given this title because of the magnitude of the grid connection offer that the Council originally accepted from Western Power Distribution (WPD). However, since the original project conception, feasibility works have identified the potential to increase the generation potential for the total size of the solar farm to a maximum of 7.2MW to include the private wire connection.

It is now proposed that the Solar Farm Proposals should be elevated to Project Status, and a separate report will be presented, in due course, to justify this decision.

5.2 Taffs Well Thermal Spring

This project has been merged with the project delivery team for the Ffynnon Taf Primary School. The team will ensure delivery of the new school extension, together with the heat network projects, and the refurbishment of the park pavilion (following recent flood damage).

Contracts have been finalised and all necessary insurances, etc. have been exchanged. The site programme has commenced with completion expected by February 2022.

The contractors have started the installation of the heat network and the pipework is now installed. The Pavilion will be connected onto the heat network first and the school will be added as soon as the new plant room becomes available.

5.3 The WBRID Challenge

As previously reported, we were recently successful in obtaining a Welsh Government (WG) Whole System Business Research Innovation for Decarbonising (WBRID) grant of £100,000.00. The challenge was advertised on Sell to Wales and submissions received to reduce the carbon footprint at Ty Elai, as a contribution towards our overall Net Zero goal.

The final proposal identified involved the potential design of a system that was intended to deliver the site's base load energy, provided by an array of Hydrogen fuel cells, with a control link combining the energy generated by the buildings solar PV arrays.

Having been successful in Phases 1 and 2 of the WBRID Challenge, the Council was unsuccessful in getting to the final stage of the process to further develop the proposals.

However, it was encouraging that the WBRiD Project Board advised that the learnings of RCT WBRID Phase 1 and the Phase 2 proposal review, would be used to inform future initiatives surrounding WGES's aspirations to inspire the sustainable use of hydrogen within the wider Wales economy and public estate.

5.4 Amgen Developments

A 1.5MW wind turbine at Nant Y Gwyddon is currently being developed by Amgen and their development partner 'Infinite'. They already have planning consent for the overall scheme and it is all ready to proceed, subject to legal agreements between themselves, RCT, Amgen and other interested parties. Amgen have advised us that work is now proceeding with a view to having the wind turbine in place and operational by the spring of 2022.

The development of the Bryn Pica site remains on the Council's agenda. As has been reported separately, there are currently several projects already planned for this particular site, under the supervision of the Amgen board and being developed by Special Projects. However, there remains a collective will, within the various service areas of the Council, to ensure that this interesting site is able to realise its full potential within the field of renewable energy

opportunities. In view of this a cross cutting meeting is planned for 2nd November 2021 with the WGES and RCT officers, to explore the full potential of the site moving forwards.

5.5 9MW Windfarms

High level feasibility considerations are still ongoing with two potential windfarms on Council land which, if feasible, will be subject to a future planning application. However, the lack of any spare 33Kv grid capacity at WPD's upper boat grid connection point has been proving a barrier to progress, on both the proposed Windfarms.

Representatives of the Council recently met with WPD at their HQ to discuss the grid capacity issue in detail, and to see if a solution could be arrived at. WPD have agreed to keep in regular contact with our officers and it is hoped that such regular dialogue will result in WPD looking favourably on the aspirations of RCT, regarding any spare grid capacity that may become available in the near future.

To plausibly circumnavigate the recognised obstacles regarding grid constraints, and ultimately realise our wind power ambitions, talks have recently been held with two local developers who both have similar plans to develop Windfarms on land adjacent to our outline proposals. Both these companies have established and confirmed 'substantial' grid connection offers from WPD, and although talks are in the early stages, initial signs are encouraging. We will continue to hold further dialogue with both developers to determine if collaborative working arrangements can be agreed upon and enacted, for the benefit of both parties.

5.6 3MW Windfarm

High level feasibility discussions are still ongoing with an adjoining developer and are primarily focused on the final size and form that the overall project may take. If the Council decide to take up the opportunity to work with the developer, the size of the entire 'Windfarm' is likely to increase to around 14.1MW and if feasible, may be subject to a future planning application.

Respective grid connection offers are currently being discussed in detail with the developer and WPD to determine the potential levels of curtailment that may be enforced at both voltage levels, 11kV and 33kV. The outcome of these discussions will have a major bearing on the future size and shape of the project, and any viable proposals that emerge will be presented for further approval, at the appropriate time, and before proceeding to the next stage.

5.7 Hydro Electricity Opportunities:

A specialist company has been engaged to reconsider the previous feasibility study (circa 2010) for a potential hydro-electric scheme at Treforest Weir. The outcome of this review is imminent and will be the subject of a further update report in the future.

Due to current WPD grid constraints, the viability of such a project will depend on promoting and securing a private-wire connection agreement with a substantial, nearby partner. If the first phase of the review confirms that this is something worth considering, we will then pursue feasibility discussions.

The team have also engaged a specialist company to review all the previously considered 'high-head' hydro sites of potential, across the County Borough. The review will highlight and prioritise prospective project locations, for further in-depth review, that also have potential for private-wire opportunities nearby. Once processed and priorities are decided, we may also share the results with community groups, who might wish to consider community-based projects.

The specialist providers have been asked to provide a detailed study of the previously published Dare Valley Country Park proposals. This review is also imminent and will be the subject of a further update report in the future.

5.8 ULEV Project

We have recently received the final report from the WGES ULEV Team. The report is in three sections, each with its own considerable level of technical detail, with highlighted issues and recommendations. There are sections on Electrical Vehicle charging infrastructure aspects of the relevant RCT locations, the RCT directly operated vehicle fleet (by vehicle category) and the RCT 'Grey Fleet' usage (mainly staff mileages).

The contents of the reports are currently under consideration by the relevant RCT Officers and further discussions with the ULEV team of the WGES are underway to consider the issues and clarify certain points raised. The details and conclusions of the report will then be used to inform future policy and set the future direction for decarbonisation measures in this area.

5.9 Carbon Reduction Programme

Work is now well underway in delivering the programme for financial year 2021/22. The works include a wide range of proposals including such schemes as New and Extended Solar Energy projects, LED Lighting and Boiler Upgrades, etc. The programme for 2021/22 is valued at over £1.2M and could generate estimated annual savings of

3,112,345 kWh which is the equivalent to circa. 611 tonnes of CO₂ annual savings.

5.10 Carbon Footprint Project

The Carbon Footprint Project and associated Welsh Government Carbon Reporting requirements are the subject of a separate report to the Climate Change Cabinet Steering Group where all aspects are covered in further detail.

The RCT Carbon Footprint Project commenced in conjunction with Carbon Trust in January 2021 and produced a report on RCT Council Emissions for the Financial Year 2019/20, finalised in April 2021. This report gave a comprehensive analysis of the RCT Carbon Footprint for 2019/20 and was followed by a second and complimentary report on the 2019/20 data entitled 'Insights and Recommendations', which focused primarily on the Emissions that were identified as being related to externally Procured Goods/Services and Capital Assets. The content and conclusions of the Insights and Recommendations report will be used to guide future policy direction and activities in this area.

Following the completion of the 2019/20 Carbon Footprint, it was agreed to commence Phase 3 of the project to establish the RCT Carbon Footprint for the Financial Year 2020/21. This exercise commenced in July 2021 and a further comprehensive report on the RCT Carbon Footprint for the Financial Year 2020/21 was finalised in September 2021.

During the Council's progress of the Carbon Footprint project, Welsh Government published its Welsh Public Sector Net Zero Carbon Reporting Guide in May 2021 and subsequently clarified the reporting guidance in September 2021. The Welsh Government Carbon Reporting requirement from this is that both Financial Years 2019/20 and 2020/21 need to be reported on by 31st October 2021.

The Welsh Carbon Reporting data requirement, although very much like that used for the RCT Carbon Footprint exercises for 2019/20 and 2020/21, nevertheless has some differences, particularly in regard to how it analyses the Emissions resulting from externally Procured Goods/Services and Capital Assets.

6. ASSOCIATED STRATEGIES AND PLANS UPDATE

6.1 Climate Change Working Group

The Climate Change Working Group was set up to support the work of the Climate Change Cabinet Steering Group. Several meetings have taken place through the Spring and Summer, and there is another meeting planned for the Autumn period. Recently, attendance at the Group has been honed to include mainly key officers from across all

Service Groups, including the Chairs and/or Vice-Chairs of the various working groups. Feedback has been positive to date.

6.2 Electric Vehicle Charging & Transportation Sub Group

The EVC Strategy and Implementation Plan are the subject of a separate report to the Climate Change Cabinet Steering Group where all aspects are covered in further detail.

This group has now submitted the final version of which EVC Strategy and are awaiting approval to proceed to publishing. To follow on from this, the group is now in the process of compiling an Implementation Plan, which will provide a road map to people and organisations aspiring to provide EVC infrastructure, together with an Action Plan to help drive future decisions under the influence of the Council.

Public consultation via a Web based system has been used to support the work of the group and to receive and collate feedback from members, the general-public and staff. The consultation reports resulting from this have been used to inform the process.

Impact assessments have been prepared and submitted for comment and a review panel took place on 20th October, the outcomes of which have had positive influence on the whole process.

6.3 Natures Assets Working (NAW) Sub Group

The NAW sub group are addressing Carbon Capture and pulling together data on RCT's peatland assets, wooded areas, and grasslands, for the purpose of identifying potential restoration projects. Such potential projects could have a substantial impact on the council's carbon footprint, as well as improving air quality and also assisting with ground water management.

The Group are looking at carbon capture opportunities by restoring failing peatlands and naturalising areas, whilst also improving ecology and biodiversity. The group have already appointed a specialist to investigate and report on RCT's peatland assets. The report will provide test results and a series of recommendations for restoration and improvements.

The group are also looking at sequestration opportunities as well as 'greening' our town centres by introducing rain gardens, together with the more recent Queens Green Canopy initiative, and an ancient woodland project has been recommended for further work with support from the QGC initiative.

This woodland work will form part of the proposed Tree Policy and the group will provide support in its development, and some of this work will be the subject of a separate report to the Climate Change Cabinet Steering Group.

6.4 Community Activity, Comms and Engagement Sub Group

The aim of this Sub Group is to support the Council's work to reduce Carbon Emissions across the geographical area of the County Borough. The Group currently consists of representatives from across the Council that will inform and deliver an initial programme of work, including the following:

- Identifying, categorising and mapping relevant decarbonisation / climate change activity across the County Borough, including nature-based projects, energy generation, food production, arts and reuse projects.
- Identifying existing and contributing to the development of new community networks, including with third sector partners and potential to support and encourage funding bids.
- Implementing a Comms programme that supports national campaigns including RCT countdown to COP 26 and showcasing the Council's clean air / energy and nature projects arising from the work of other subgroups.
- Delivering an ongoing Climate Change Conversation using online and Face to Face methods to capture understanding of Climate change, the local impact, and ideas that the Council can use and develop to shape future activity. Online conversations include Let's Talk EV Charging, [Let's Talk Climate Change](#), Let's Talk Wildflowers, with Let's Talk Trees appearing imminently. A video specific to RCT has been produced and appears on our Let's Talk Climate Change platform <https://youtu.be/lyg5c4XABdk>, the platform also encourages residents to give us their ideas about how we can tackle climate change.
- Developing a Climate Dashboard that will show the Council's progress to meeting its Net Zero target, initially as a Council and then also across the County Borough.

As part of their work, the group are also learning more about community attitudes to Climate Change which currently range from excellent ground-breaking projects to clear resistance. They will use this information to inform and shape our engagement activity to encourage and support the behaviour change needed to facilitate a notable difference.

7. EQUALITY AND DIVERSITY IMPLICATIONS / SOCIO-ECONOMIC DUTY

- 7.1 This supporting report is for the purpose of update and consequently an Equality Impact Assessment is not required with regard to this report.

8. WELSH LANGUAGE IMPLICATIONS

- 8.1 This supporting report is for the purpose of update and consequently Welsh Language Impact Assessment is not required with regard to this report, however a copy can be made available in Welsh if requested.

9. CONSULTATION / INVOLVEMENT

- 9.1 There are no consultation requirements at present with regards to this supporting report.

10. FINANCIAL IMPLICATION(S)

- 10.1 All existing 'live' projects are currently funded through relevant cost centres and an existing enabling budget so there are no further financial implications aligned to this interim report.

11. LEGAL IMPLICATIONS OR LEGISLATION CONSIDERED

- 11.1 There are no legal implications aligned to this report

12. LINKS TO THE CORPORATE AND NATIONAL PRIORITIES AND THE WELL-BEING OF FUTURE GENERATIONS ACT.

- 12.1 The purpose of the report is to provide an interim update report relating to the work of the Climate Change Cabinet Steering Group with regards to the work underway on the development of key renewable energy projects and certain other related issues. Any future actions that arise as a result of the recommendations of the Climate Change Cabinet Steering Group report will be considered by the Council's Cabinet and it will take full regard to the seven national wellbeing goals.

13. CONCLUSION

- 13.1 This report provides background information pertinent to the Climate Change Cabinet Steering Group. It provides updates on the proposals for the Council to build and finance potential solar and wind schemes that will make a significant contribution to the Council achieving its Net Zero Carbon target. It also provides key updates on some other associated strategies and plans to reduce the Council's Carbon impact.