

ENVIRONMENT OVERVIEW & SCRUTINY COMMITTEE

Date of Meeting	Wednesday 2 nd November 2016
Report Subject	Renewable Energy Action Plan Update
Cabinet Member	Deputy Leader and Cabinet Member for the Environment
Report Author	Chief Officer for Planning and Environment
Type of Report	Strategic

EXECUTIVE SUMMARY

The Renewable Energy 10 Year Action Plan (see appendix 1) was developed to ensure that Flintshire County Council maximises the social, environmental and economic opportunities of low carbon and renewable energy generation including the provision of an income stream for the Council through UK Government incentives and reducing the Council's energy spend. A number of activities have been completed in the first year of the Action Plan and are contributing towards the achievement of actions identified in Years 1-2. The development and construction of 2 solar PV installations at Brookhill and Standard Landfill Sites has also contributed towards actions identified in Years 3-5 with a progress update given below.

RECOMMENDATIONS

1	The Committee continue to support the actions set out in the Renewable Energy Action Plan and the progress made so far.
---	---

REPORT DETAILS

1.00	Renewable Energy Action Plan Update
1.01	The Renewable Energy 10 year Action Plan aims to assess and develop renewable energy systems on Flintshire County Council owned land and assets to ensure that the social, economic and environmental benefits of

	<p>renewable and low carbon energy generation are maximised by the Council. Following Cabinet approval (17th March 2015) this report provides an update on the activities completed under the actions listed below, during the first year of the plan. Each action is listed and commented on below.</p>
1.02	<p>RE1: Identify potential generation sites (eg landfill sites and other known brownfield sites). Tender and appraise submitted costs vs ROI. Report to Cabinet for approval rejection.</p> <p>Activities completed:</p> <ul style="list-style-type: none"> • Headline list of potential brownfield sites developed by Valuation and Estates with a more detailed list of sites to follow • Opportunity to work in collaboration with Planning Policy Officers, in identifying potential sites, as part of the Renewable Energy Assessment required for the Local Development Plan.
1.03	<p>RE2: Identify all FCC land holdings with potential to develop renewable energy systems.</p> <p>Activities completed:</p> <ul style="list-style-type: none"> • As above
1.04	<p>RE3: Appraise opportunities to extend /install Photo Voltaic panels, (P.V.) on and or within Primary and Secondary Schools grounds.</p> <p>Activities completed:</p> <ul style="list-style-type: none"> • Assessment carried out by the Design team to highlight spare capacity in Primary and Secondary School grounds whilst still meeting playing field space requirements. • Next step is to select sites and develop designs and proposals and assess funding options in partnership with Officers in Education. • This would also include the feasibility of onsite battery storage.
1.05	<p>RE4: Undertake desktop assessments of generation /sustainable potential e.g. P.V. , hydro, tidal and wind</p> <p>Activities completed</p> <ul style="list-style-type: none"> • Initial assessments carried out for hydro generation at Wepre Brook in Wepre Park and Greenfield Valley Heritage Park. • Wepre Brook initial assessment has enabled a feasibility study to be completed with the contractor now developing a detailed design. Electricity generated is to be used to power the visitor's centre and ranger's office. • Initial assessment of Greenfield Valley indicated that any hydro projects would have a long payback period and have not been considered feasible. The Energy Unit has however installed new cabling (which had previously been stolen) to reconnect the generator to one of the waterwheels which can provide power to one of the museum buildings, and are working towards registering this for the Feed in Tariff. • Opportunity to work in collaboration with Planning Policy Officers, in identifying potential sites, as part of the Renewable Energy

	<p>Assessment required for the Local Development Plan.</p> <ul style="list-style-type: none"> • Major Domestic Solar PV investment through the Domestic Energy Efficiency Project in partnership with Community & Enterprise, both within the Vibrant and Viable Places area and across the wider county housing stock in bungalows to maximise tenant benefit and create long term reinvestment fund. Blue sky modelling and investment profile being reviewed to assess further feasibility. • Domestic-scale battery storage pilot on off-gas council housing sites in progress, including integration of solar photovoltaic, air source heat pumps and domestic scale battery storage. Funding has been obtained from EDF's Blue Lab Innovation Fund.
1.06	<p>RE5: Undertake desktop assessments of Flintshire C.C. land holdings to determine suitable areas of land to plant trees to enhance the environment and provide a future sustainable wood (biomass) supply.</p> <p>Activities completed:</p> <ul style="list-style-type: none"> • Initial assessment carried out by Coed Cymru Officer and Tree Officer (see Appendix 2). • In FCC owned woodlands there is 220 m³ of timber available per annum without depleting the capital reserve of timber. These woodlands contain a significant proportion of medium/high quality timber which should be directed into the appropriate market niches as opposed to use as wood chip. • There is the opportunity to establish short rotation coppice biomass (e.g. willow) on FCC owned agricultural estates. Sealand was highlighted as having the potential capacity to supply a strategic quantity of wood chip fuel with good highways links. 1300 tonnes of willow/poplar woodchip etc. could be produced annually. • Other areas of biomass that could be developed further include; waste from tree surgeons etc, sawmills, timber from FCC recycling centres and private woodlands. • This assessment also contributes towards actions RE10; Develop planting programme on all suitable identified land (accessing grants as available) and RE11: Develop woodland management strategy to create a mix of specimen and harvestable timber. • Next step is to look in more detail at the opportunities on FCC landholdings
1.07	<p>RE6: Undertake public consultation exercise, consider and develop further actions from feedback for inclusion within a future updated version of this plan</p> <p>Activities completed:</p> <ul style="list-style-type: none"> • 9 people answered the online questionnaire; this sample size is too small to draw any meaningful conclusions. • All were supportive of the plan and its aims. • Consider future engagement options
1.08	<p>RE7: Develop plan to consider feasibility of creating wood chipping facility</p> <p>Activities completed:</p>

	<ul style="list-style-type: none"> • Initial assessment of waste wood amounts collected at FCC recycling centres completed. • Feasibility assessment of wood chipping facility to be developed.
1.09	<p>Progress has also been made towards achieving RE8; Progress additional identified sites, where funding and payback periods are confirmed; with regards to the solar PV installations at Brookhill and Standard Landfill Sites.</p> <p>Following Cabinet and Planning Committee approval; principal contractor Lark Energy Commercial Installations started construction work on 22nd August with a grid connection deadline of 3rd October. Both sites were successfully connected to the local electricity grid and witness tested by Scottish Power Energy Networks on 1st October. Lark Energy are now in the process of completing the Feed in Tariff application for both sites, to be submitted to Ofgem for accreditation, with minor installation snags to be completed onsite. The solar PV installations at both sites will complement the existing low carbon electricity generation from the landfill gas.</p> <p>At Standard the 650 kWp solar PV installation has been connected to the Mixed Recycling Facility (MRF) to provide electricity for the onsite plant. This will reduce the amount of electricity and associated cost that the MRF has to use from the grid. As Standard is an open site, accessible to the general public, an information board will be installed at the public entrance with details of the solar PV and landfill gas generation.</p> <p>At Brookhill the 370 kWp solar PV and landfill gas generation will be connected via a private cable to Alltami Depot to provide electricity which will reduce the amount of electricity drawn from the grid and the associated costs of this. This will also complement the proposed electric vehicles and associated charging infrastructure. The private cable connection is due to be completed by the end of March 2017.</p> <p>The solar PV is predicted to generate an income and electricity savings of £2.8 million over the 20 year lifetime of the installations.</p>

2.00	RESOURCE IMPLICATIONS
2.01	There are no direct financial implications or other resource implications associated with this report.

3.00	CONSULTATIONS REQUIRED / CARRIED OUT
3.01	<p>No consultations required as a direct implication of this report.</p> <p>Consultations carried out with relevant officers in Design, Valuation and Estates, Conservation, Countryside Services, Planning and Streetscene.</p>

4.00	RISK MANAGEMENT
4.01	Anti-poverty Impact: None as a direct result of this report. Environment Impact: None as a direct result of this report. Equalities Impact: None as a direct result of this report.

5.00	APPENDICES
5.01	Appendix 1: Renewable Energy 10 Year Action Plan Appendix 2: RE 10&11 Flintshire CC Renewable Energy Plan

6.00	LIST OF ACCESSIBLE BACKGROUND DOCUMENTS
6.01	N/A Contact Officer: Sadie Smith, Energy Conservation Engineer Telephone: 01352 703767 E-mail: sadie.smith@flintshire.gov.uk

7.00	GLOSSARY OF TERMS
7.01	<p>Generation: Electricity or heat that is produced from a renewable energy resource such as from solar (in the context of this report).</p> <p>Local Development Plan: a framework of policies and proposals which seek to regulate and control the development and use of land, and to provide the basis for consistent and transparent decision making on individual planning applications.</p> <p>Low Carbon Generation: Energy (heat or electricity) which is produced from sources such as ground source heat pumps, energy from waste etc.</p> <p>Ofgem: the Office for Gas and Electricity Markets.</p> <p>Renewable Energy: Energy that is produced from resources that are naturally replenished and can be used without depletion of these natural energy sources. Types of renewable energy include; the sun, wind, hydro, tidal and biomass (wood chips, wood pellets etc).</p> <p>Renewable Energy Assessment: This assesses the renewable energy potential within an area. This is a specific requirement for the local development plan to identify how the provision of renewable and low carbon generation can be maximised.</p> <p>Short Rotation Coppice: This is an energy crop which consists of densely planted (15,000 stems per ha) high yielding varieties of willow and poplar.</p> <p>Solar PV: Solar panels which produce electricity from the Sun's energy. PV stands for photovoltaic which describes this process.</p>