Policy DP7:
Renewable and low carbon energy

Proposals for energy generation and storage schemes from renewable and low carbon sources including wind turbines, solar photovoltaic arrays, geothermal heat, green hydrogen production, sustainable aviation fuel, biomass and hydropower (marine, river and tidal) will be supported subject to no unacceptable impact on:

Ecological assets, including local, national, and international designated sites and impacts on biodiversity;

- The historic environment, including heritage assets and their settings;
- Townscape and landscape character;
- Living conditions in local communities from vibration, noise, shadow flicker, glint, glare and air quality; and
- Infrastructure assets including power lines, roads, rail, ports/ shipping lanes and aircraft safety.
- The availability of Best and Most Versatile Agricultural Land

Priority will be given to proposals with potential for positive cumulative impacts with other renewable energy schemes, developments on previously development land and solar photovoltaics on roof tops.

On greenfield sites, all proposals should seek to support continued agricultural use and demonstrate biodiversity improvements.

Priority will be given to renewable and low carbon energy generation developments that are led by and/or meet the needs of local communities. Support will be given to community energy schemes which provide energy for local facilities or development areas. Projects that are capable of connecting to the lower-voltage local distribution systems will be given positive weight. Where community support is identified for a specific technology at a given location, this will be identified as a preferred location for that technology. Commercial led energy schemes with a capacity over 5MW must, subject to viability, provide an option to communities to own at least 5% of the scheme.

Any proposals which include renewable energy of equal to or greater than 1MW generation capacity are encouraged to include energy storage, or provide a direct connection to the energy user.

All renewable and low carbon energy schemes must aim to generate the maximum energy potential from the site and consider options for how they might deliver additional value in terms of, increasing local energy resilience and helping to conserve and support local water resources and wildlife.

Proposals for biomass/bioenergy developments will be approved provided they are of a scale and type which is appropriate to the location. Support will be given to community energy schemes. These

developments should be located away from urban areas and must not have a detrimental impact on air quality. A whole life carbon benefit will need to be evidenced. All schemes using crops should demonstrate a positive impact on local biodiversity.

The infrastructure required for the production and distribution of low carbon hydrogen, particularly using local renewable energy sources, will be supported in principle subject to no unacceptable impacts as outlined above.

Proposals for repowering and extending the life of existing schemes will be supported in principle.

The development of heat networks will be encouraged provided that:

- They use renewable and low carbon forms of energy generation;
- Individual developments make all reasonable efforts to meet net zero standard onsite, before connecting to a heat network; and
- Opportunities for co-locating heat customers and suppliers are explored.

Listed building consent will be required for any applications relating to renewable and low carbon installations on listed buildings.

Justification

This policy is intended to encourage increased levels of renewable energy generation across the district. This is an important part of the Climate Emergency Declaration and the aim of carbon neutrality by 2030.

Accelerating the decarbonisation and decentralisation of the energy system in the UK is essential to mitigating climate change. It can also bring wider environmental and economic benefits and improve the security of our energy supply. North Somerset has the opportunity to increase renewable energy generation and facilitate development to enable a more flexible, smart, decentralised energy system. This includes initiatives to promote the transition to renewable energy technologies and alternative fuels such as green hydrogen, particularly at the airport and port. Fossil fuel-based energy installations will no longer be acceptable.

North Somerset Wind Energy and Solar PV Supplementary Planning Documents will be updated to highlight potential locations identified as most technically suitable areas for renewable energy schemes from the Renewable Energy Resource Assessment Study (2021). The SPD will also provide guidance in relation to the Landscape Sensitivity Assessment (2021), which assessed the landscape sensitivity of different parts of North Somerset in relation to solar PV and wind turbine development.

Energy storage has a vital role to play in enabling a zero carbon electricity system. Energy storage is required to reduce the impact from intermittency of electricity output which varies according to weather conditions and to address grid capacity constraints. Renewable energy storage provides reserves for use when demand is high, when supply is low, or at times of system stress.