NETpositive FUTURES

Generating Your Own Energy

There are several benefits to generating your own energy as a business, some of which are as follows:

- **Lower electricity costs** – generating electricity on site can of course reduce overall energy costs. This is particularly good for businesses which use a lot of energy on a daily basis
- **Increased revenue** – following from the above point, it is possible that you will generate more energy than you need. If this is the case, excess can be sold back to the grid at a potential profit
- **Price protection** – energy prices fluctuate often. Generating your own avoids the unpredictability of the energy market
- **Reduced carbon emissions** – Harnessing renewable energy sources such as solar and wind can help reduce your business' carbon footprint. Not only is this great for the environment, but it could help your business qualify for sustainable business awards, recognition, and grants

If you would like to start generating your own energy as a business, there are a number of things to consider:

- **Stakeholder ambitions** - The decision makers and stakeholders within your business may take a more long-term stance on the overarching energy usage strategy. It is important to have their input before proceeding with the best plan of action
- **Overall targets** - The best place to start would be to identify which of the five benefits listed above have influenced your decision to generate your own electricity. Whether you're inspired by environmental ambitions or are keen to reduce your business' overheads – the long-term targets could impact how you implement your electricity-generating plans
- **Business location and physical size** - Naturally, the location and physical footprint of your business will impact how you can and should generate your electricity. For example, businesses which are located (or own land) on high ground or by the sea may be best to invest in wind turbines to take advantage of the high volume of this renewable energy source
- **Government incentives** - In a bid to encourage businesses to meet certain sustainability targets, the government offers incentives for businesses reducing their energy consumption. Research the incentives your business may be entitled to and identify your clearest path to achieving these
- **On-site restrictions** - Although restrictions on implementing renewable energy sources and supporting technology have been lifted by the government to further incentivise environmentally-friendly practices, there could still be certain restrictions. Large structures such as wind turbines, in particular, will be subject to planning permission and environmental reviews. This means it is important to review the viability of your plans being accepted before investing significant time and resources into the project

Once all of these things have been considered, it is time to decide which method of energy production is right for your business. Some options are:

- **Solar Panels -** The most widely known renewable energy generating technology, solar panels have a small physical footprint and require minimal upkeep and maintenance. Soaking up rays from the sun means solar panels have little environmental impact. However, there is a limited volume of solar power a business can use, based on the size of the premises, so it is best suited to complement a wider electricity-generating strategy
- **Wind Turbines -** Similar to solar panels, this technology turns the natural elements into electricity. However, the physical footprint is larger, and planning permission will have to be sought before a wind turbine can be constructed
- **Heat Pumps -** There are two different types of heat pumps available: air source and ground source. The first absorbs naturally-occurring heat from the outside air, whilst the second sources the heat retained in the ground. This form of electricity generation is great for powering the heating in your premises and heating up water
- **Combined Heat and Power (CHP) -** Sometimes known as cogeneration, CHP is the process of maximising the amount of usable energy when generating electricity. Traditionally, when electricity was generated, wasted heat would be emitted into the atmosphere. CHP is a process of harnessing that excess energy and turning it into useful heat. This means that for the same amount of fuel combustion, more energy can be produced

It is important to take the time to research each method and the costs and implications carefully in order to determine which is the most suitable for your needs.