



## Scottish Water Energy Programme

Our Energy Programme aims to reduce the cost of delivering our services to customers and reduce our carbon footprint.

We require around 440 GWh per year from the grid to provide our vital services.

Here's how we use a four pronged approach to energy management and development:

- **Reducing consumption by improving the capability of our assets and operations**  
We have installed over 4,000 smart meters to measure consumption and help target energy efficiency opportunities. Over the last 6 years we have reduced base electricity consumption from the grid by around 5%. We have made changes to operational practices and our asset base to reduce consumption or move demand to cheaper tariff periods. We are also exploring and piloting other initiatives and long-term, low energy, low carbon treatment solutions. Energy management and efficiency will play a key role in future years with the objective to reduce our operating costs.
- **Increasing self-generation**  
Since 2013 we have increased our installed renewable generation capacity to 63GWh per year, and we have diversified our portfolio to include hydro, wind, biomass, photovoltaic solar, combined heat and power (CHP) and biomass boilers. We currently have 38 hydro turbines, 18 small scale wind schemes, 44 solar schemes, 4 CHP plants, and 3 biomass boilers. These all help to offset the amount of electricity we buy from the grid, with several treatment works now self-sufficient.
- **Purchasing low-cost green energy/ Private Wires**  
We now purchase 17% of our electricity from low cost green energy production in Scotland, including Burn of Whilk Wind Farm, Caithness, Millerhill Anaerobic Digestion Plant in Edinburgh and a privately-owned renewable Anaerobic Digestion Plant next to Girvan Wastewater Treatment Works. We also purchase green energy from local renewable assets on the Fair Isle, which supplies reliable power to the island, as well as our local Water Treatment Works. These schemes bring benefits to local businesses and communities, and we are working with Local Energy Scotland to deliver similar schemes in future.
- **Hosting private renewable investment**  
We host private investment in renewables on our land where it provides a good return for customers, and is compatible with providing high quality services. In 2018/19 the large scale wind generation programme delivered £2.8 million of income. We now host over 831GWh of wind generation on our land at Whitelee Wind Farm, SSE's Clyde Extension Wind Farm and RedRock's Afton Wind Farm. We are actively investigating further opportunities with local communities and developers, not just on wind or hydro generation, but also recovering energy from waste.

Scottish Water Horizons, one of our subsidiaries, also supports renewable energy projects and enabled the first UK heat from waste water scheme to be commissioned in Galashiels. Horizons' food waste Anaerobic Digestion Plant - the first large scale plant built in Scotland - is helping to prevent the release of greenhouse gases from landfill and continues to operate successfully.