

6. Scaling-up our solar



Situation

We have 57 roof or reservoir mounted photovoltaic (PV) installations plus an 8MW solar farm built at Dunore Point. We are targeting reduced carbon emissions, reduced energy costs, cost certainty and improved energy resilience in the long term. It is recognised that PV installations could support this.

We have several sites which could be suitable for ground mounted solar, potentially giving further self-generation of 8MW (doubling the current installation capacity). There may be an option to extend the current solar PV farm at Dunore Point, with the potential to combine with grid connection or energy storage on site. With the falling costs of solar projects, we wish to increase the amount of solar generation to address the rising cost of electricity, reduce carbon emissions and enhance the supply resilience challenges they face.



Action

Our plan is to install solar in a manner which minimises the requirement for an export connection, meaning that most of the electricity generated can be used on site. Projects may also be optimised with deployment of energy storage to further align demand and generation.

We are continuing its site selection process to pick out the most feasible sites, where electricity can be used behind the meter. A procurement strategy is currently being developed.

Benefits to customers include better value for money due to the reduction in operating costs, reduced carbon impact and provision of a more secure supply. The business will also benefit from increased operational resilience and providing a more reliable service to customers.

Results

A PC21 solar investment of £6m, with additional annual Opex of £72k, will reduce the amount of electricity bought from the grid. This will provide an annual recurring benefit of approximately £536k (6.6GWh/year) and carbon emission reductions of 2,024tCO₂e/year compared to grid electricity. Greater security of supply will be provided to the sites where solar is installed.

We will develop Solar opportunities to align with any relevant outcomes from the new energy strategy for Northern Ireland. This may result in the availability of new support mechanisms which NI Water can avail of.