

## Example of Innovation – Scottish Water Difgen

The Difgen is a pump that when run in reverse can act as a turbine. This allows for renewable energy to be generated from the water distribution network. The technology has been adapted and transferred from the oil and gas industry and the first unit was installed in Scottish Water in March of this year. The energy produced is around 600 MWh per annum, which is enough to power 150 homes. A further 4 sites have been developed across the 3500 pressure reducing valves (PRVs) currently installed across our water networks. Realisation of the potential is dependent on local operational conditions and ease of local grid connection.

It is the latest renewable energy project designed to reduce Scottish Water’s energy bill for the benefit of customers. Scottish Water has 10 hydro schemes in operation, while 23 other sites - either hosting hydro or Difgen technologies - are in development. Scottish Water is also looking at the potential for further schemes across its network.

Deputy First Minister Nicola Sturgeon in March 2013 welcomed the installation on a visit to Denny to find out more. Nicola said:

*“This is an excellent and innovative project and it is a tribute to the pioneering work Scottish Water is doing that this is a UK first. It is fantastic to see two of Scotland's vast natural resources, water and renewable energy coming together to benefit both the environment and Scottish Water customers. It matches the Scottish Government's ambition to make Scotland a Hydro Nation and ensure the water we have in Scotland delivers the maximum possible benefit to our people”*

