

# Local Architect suggests hydro station project as a great possibility for Waterford in Renewable Energy Strategy

*Wednesday, 13th July, deadline for submissions on Renewable Energy Strategy*

By Paul Mooney

THE deadline for public submissions on the Council's proposed Renewable Energy Strategy for County Waterford (2016 - 2030) is close of business today, Wednesday, 13th July - and one person who has made a detailed submission on the proposed Renewable Energy Strategy is local Architect and Conservation Architect, Damien Dillon (MIArchS **MRIA**).

The proposed Renewable Energy Strategy, which will cover various forms of renewable energy for Waterford, has been on public display for submissions for the past four weeks.

Renewable energy sources being considered in the strategy includes wind power (onshore and offshore); solar; hydro; biomass; geothermal and heat pumps.

## TURLOUGH HILL

In his submission, Mr. Dillon states that there have been "various attempts / experiments to

provide clean emission free energy, including windmills, solar panels and solar farms, heat recovery, wave energy, hydro-electric, such as Ardnacrusha, Nuclear, etc."

"All of those have had varying degrees of success and or disadvantages," said Mr. Dillon.

He said that after 40 years of use, "it must be time that we revisited 'The Turlough Hill Hydro Station' and carry out the usual examination of cost benefit, environmental impact, if any, efficiency, etc."

The Turlough Hill Hydro Station is operated by the ESB and based in County Wicklow and makes use of two water reservoirs connected by a pressure tunnel.

Water is pumped up from the lower reservoir to the upper reservoir, using surplus power available at times of low demand, and then allowed to fall by gravity from the upper reservoir back into the lower reservoir, passing through turbines along the way to generate electricity.

Mr. Dillon describes it as the "closest we've come to perpetual motion".

"One potential location that springs to mind is Crotty's Lake - there may be other high-level lakes that would be suitable," said Mr. Dillon.

In his submission, Mr. Dillon said the Council should take into consideration 'The Turlough Hill Hydro Station' and a visit to the facility "would also benefit those not familiar with the concept".

"I'm sure the ESB would be willing to share their experience, without us having to 'reinvent the wheel' metaphorically speaking," said Mr. Dillon.

The ESB celebrated the 40th Anniversary of Turlough Hill Hydro Station in 2014 by opening it for free tours to the public.

It remains the country's first and only hydro electric storage station and has been hailed as "a massive feat of innovative environmental engineering" which is very relevant today as it was in 1974. The station is buried out of sight, deep in the



Local Architect and Conservation Architect, Damien Dillon (MIArchS **MRIA**).

mountain and a massive underground chamber constructed inside the granite mountain houses the station control room.

The plant can generate up to 292 MW of electricity during peak demand periods, going from standstill to full capacity in 70 seconds.