

# Radyr Weir Hydro Scheme

## Frequently Asked Questions

### What is Radyr Weir Hydro Scheme?

A hydroelectric energy generation scheme that uses the water from the River Taff to produce electricity.



### How does it work?

The scheme takes advantage of the power of the water flowing through the river Taff. The site is particularly suitable for this due to the fast flowing water as well as the height difference caused by the weir at Radyr.

Part of the project involves building a channel alongside the Taff. This allows water to pass down through two turbines (called Archimedes screw turbines). The power of the water turns the turbines. The turbines are attached to a generator which produces renewable energy in the form of electricity. Once the water passes through the turbines it returns back into the river.

### How big will the scheme be?

Each of the two screw turbines are 4 meters in diameter and approximately 10m in length. The scheme will generate enough electricity to power the equivalent of up to 550 homes. The maximum amount of power at any one moment that the system can produce is approximately 400kW.

### What will happen to the energy that is generated?

The scheme is connected to the local electricity distribution network which runs alongside the scheme.

### What improved facilities will there be?

- **Picnic Area** – A picnic area will be incorporated adjacent to the scheme to allow users of the Taff Trail to take a break and enjoy the surroundings.
- **Fish Pass** - An improved fish pass will be constructed as part of the schemes. This will make it easier for fish to travel upstream.
- **Information Boards** – Providing information on the heritage of the weir itself as well as information on the hydro scheme.



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### Why are the Council doing this?

Cardiff has an aspiration to be a One Planet City by 2050. This vision focusses on environmental sustainability alongside the socio-economic benefits of this approach, of which energy is a major component. The council have an aspiration to lower its environmental impacts as well as helping Cardiff become a one planet city.

The government also provide a financial incentive for generating renewable energy such as hydro. This allows the scheme to make sense financially.

### When are key activities scheduled to take place?

Piling works completion	30 <sup>th</sup> October
Concrete Works	26 <sup>th</sup> October – 28 <sup>th</sup> January 2016
Turbine Installation	23 <sup>rd</sup> November

### When will the scheme be open to the public?

We are anticipating the scheme to be connected to the local distribution network and generating energy from late December 2015. The scheme is then expected to be fully operational from April 2016.

