

Evidence from Ripple Energy Welsh Renewables Deep Dive

Consumer ownership could reduce Welsh electricity bills by £30m per year

We welcome the recommendations of the Welsh Renewables Deep Dive, especially those regarding shared ownership. These recommendations should, however, go further. All new renewable energy projects in Wales should make available at least 30% for consumer ownership. Opportunities should be open to all consumers across Wales.

If consumers owned just 30% of the additional renewable capacity needed for Wales to reach its target of being self sufficient in renewables, Welsh consumers could benefit from:

- Annual average bill savings of £130 per household owner
- £99m bill savings per year in total
- 760,000 Welsh households could own their own source of low cost, stable priced, renewable power

Intro to Ripple

Ripple enables consumers to part own large scale wind farms and be supplied by the low cost, green electricity they generate. Ripple is a clean energy ownership platform. It partners with energy suppliers who supply owners' electricity from their wind farm to their home via the grid. Members collectively own wind farms, or parts of wind farms, via ownership co-operatives. They receive savings on their electricity bills based on how much their share of the wind farm generates.

As well as reducing owners' bills, wind farm ownership also works to stabilise them. This helps shield owners from fluctuations in electricity price.

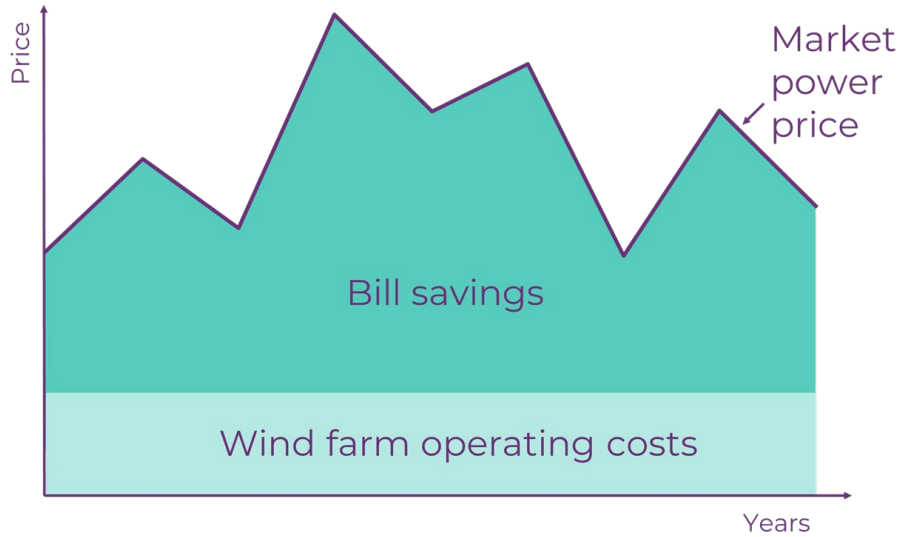
Whilst also receiving economic benefits from being part of a Ripple project, members are also directly funding the construction of new renewable capacity.

Wales has huge renewable energy resources. Ripple's innovative model of shared ownership could allow the Welsh people to directly benefit from these resources and the opportunities associated with them. These opportunities were previously only available to those living in areas appropriate for wind or solar projects. Often they were restricted to small scale projects. Ripple has, however, opened up shared ownership to people from across Wales and the rest of the UK.

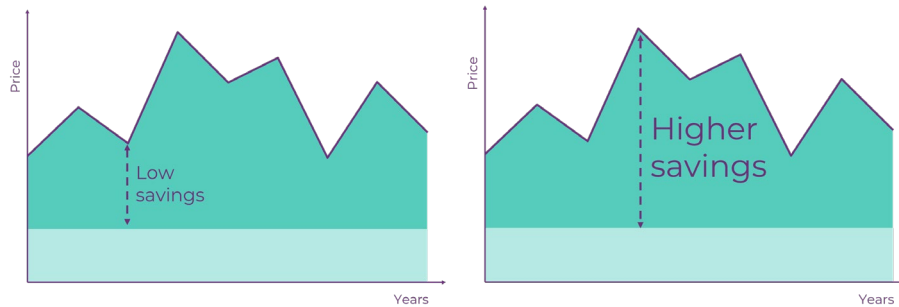
We launched our first wind farm, Craig Fatha in Rhondda Cynon Taff in 2020. We launched our second, much larger, wind farm, Kirk Hill in Scotland in February 2022. Ripple is also a partner to the NextGen offshore wind consortium. This could pave the way for consumers to be able to part own offshore wind farms in the future.

How wind farm ownership reduces consumers' electricity bills

Over the wind farm's 25 year life, we expect our members to save up to 23% off their electricity bills. Members' bill savings are the difference between the wholesale market electricity price and the wind farm's low and stable operating costs.



In years of low electricity prices, owners' savings will be lower. In high price years, savings will be higher.

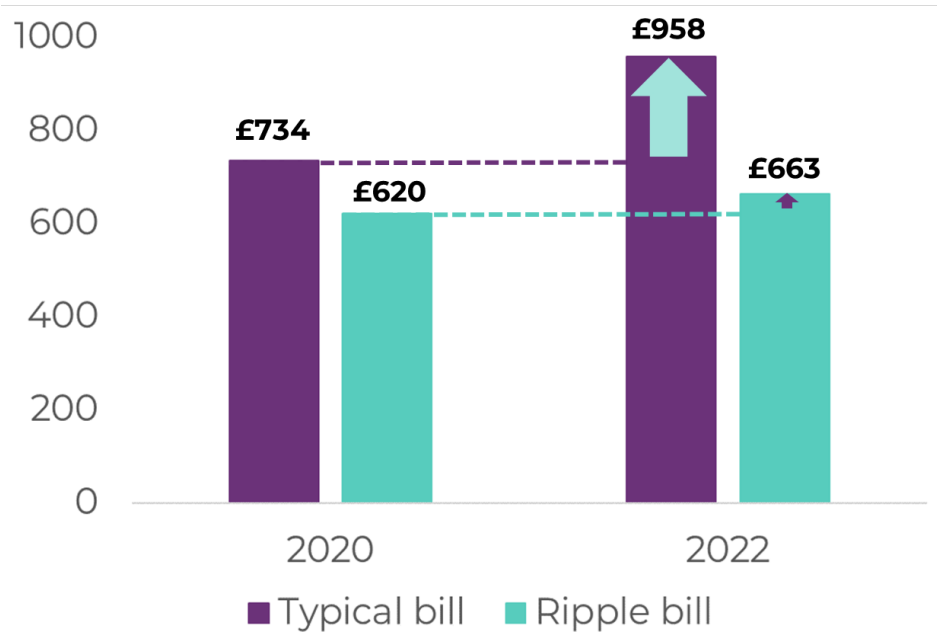


The current high electricity price has increased the level of savings our members will receive. Members of Craig Fatha wind farm will receive 9.5p/kWh of electricity bill saving for each kWh their share of the wind farm generates. This compares to

expected saving of 4p/kWh in 2020 when the wind farm was launch (a low priced period).

This equates to an average saving of £342 per member in the turbine's first year of operation. The 907 members will in total save £310,000 off their electricity bills.

Wind farm ownership protects against price spikes



Ripple members have been largely shielded from the price rises witnessed in recent months. The high wholesale prices, which have driven the rise in bills, has also increased Ripple members' savings. The net effect (with the exception of increases in levies and taxes) is a much more stable bill overall.

Case Study: Graig Fatha

Ripple's first project, Graig Fatha, was built in December 2020. It has show Ripple's innovative ownership model works and has the potential to be scaled up to larger projects. The project consists of a single 2.5MW turbine co-owned by over 900 individual members. These members form the co-operative which owns the turbine, alongside a co-investor.

For a typical household to own enough of the wind farm to cover its annual electricity consumption, they would have needed to buy a £1,880 share of the project. On average our customers bought more, around £2,300, collectively contributing £2million to fund the construction costs.

While our members are spread across the whole of the UK, Welsh consumers have been particularly interested in the Ripple model. With over 11% of our members living in Wales.

One of our Graig Fatha members is Gwilym from Penygroes, their decision to join Ripple was driven by a desire to “reduce [their] impact on the Earth and contribute to the local communities that also benefit from the turbine in Wales.”. Another of our members, Adam from Caerphilly, highlighted how “the upfront cost of solar makes entering the renewables market difficult, while Ripple has allowed [them] to take ownership of renewable energy in an affordable amount that [they] chose.”.

For our first project, we have partnered with Your Co-op Energy, powered by Octopus Energy. We are working with E.ON Next, So Energy and Unify Energy in anticipation of them becoming supply partners shortly.

Support from the Welsh Government

Just over 25% of the wind farm was supported by a grant from the Welsh Government. Proceeds from the portion of the wind farm supported by the Welsh Government grant will be used to support people in fuel poverty in the region. When the grant was awarded, it was expected to deliver around £75,000 of benefits per year. Since then, electricity prices have increased. This has increased the amount of funding for fuel poverty to £165,000 in the wind farm’s first year of operation.

Response to Recommendations

Shared ownership of renewable projects should be open to all.

The rise of green tariffs has shown that people in the UK are eager to use their power as consumers to support the transition to renewable energy and have greater control over where their energy comes from. However, the impact of many green tariffs has been questioned. Green products that do not have the implied impact, risk undermining consumers’ confidence in their ability to be a genuine part of action on climate change.

Many consumers are looking for ways they can more directly impact the development of new renewable capacity. Traditionally, the only options available were rooftop solar and, for those living in rural areas, locally owned, small-scale projects.

Rooftop solar is expensive due to its small scale. It also isn’t a viable option for people who don’t have a suitable roof, rent, or who live in a flat. While traditional community energy projects tend to be small-scale, and uneconomic since subsidies have been removed.

Ripple's mission is to make renewable energy ownership affordable and accessible to everyone. We want as many people as possible to benefit from Wales' deployment of renewable energy.

We welcome the Renewable Energy Deep Dive's recommendation to prioritise local and community ownership when exploring additional investment options for renewables projects. Given that recent YouGov polling found that over 50% of people in the UK would consider joining an energy cooperative in order to co-own a renewable energy project, there is a clear demand for share ownership opportunities.

The traditional assumption of 'community' energy being small scale (higher cost) projects is now redundant. Ripple's model has shown large scale, much lower cost projects can be owned by an online community of people with a shared interest. .

Developers should make available up to 30% of new projects for consumer ownership

Wales' ambitions for renewable energy creates a huge opportunity for Welsh consumers. We agree with the recommendation that the tendering process for renewables should favour socially minded and community schemes such as the projects developed by Ripple. However, these recommendations should go further.

In order to take action to scale up community renewable energy in Wales, the Welsh government should require that all new renewable energy projects make available at least 30% of the project's capacity for consumer ownership. This would enable 250,000 households to own their own source of low cost, stable priced, green electricity.

Genuine renewable energy ownership can help ensure the energy transition is just and fair.

Calculations:

Our calculations are based on:

- Wales's 15TWh annual electricity consumption entirely met by renewables.
- Requires 7.34TWh of additional renewable generation per year
 - 30% is household consumer owned = 2.2TWh
 - Assume Ripple saving of 4.5 p/kWh (£45/MWh)
 - Total saving = 2,200,000MWh x £45/MWh = **£99,000,000**
- Average household usage of 2,900kWh (2.9MWh)
- 2,200,000MWh consumer owned generation / 2.9MWh = **760,000 households** able to own their own