

HIGHLAND RENEWABLE ENERGY COMPANY



A proposal by Extinction Rebellion Highlands and Islands

to the

Highland Council

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The problem

The UK Government is planning for a 60% increase in electricity demand by 2035[1]. and as the current energy system is flawed this will intensify the current problems that we already have today. These include:

Fuel poverty in the Highland Region:

The Scottish “Highlands and Islands have some of the highest levels of fuel poverty in UK and Europe”[2]. Caithness produces almost ten times the energy it needs, but charity is handing out record number of blankets. Electricity prices in the Highland Region are some of the highest in UK[3]. Pay as you go electricity bills are the second highest in the UK[4].

High prices in the Highland Region are reflected in the Council’s tariffs for charging electric vehicles, which will be key to achieving Net Zero targets particularly in the Highland Region with its widely dispersed population and poor public transport network.

[1]

https://www.edie.net/uks-2035-clean-power-goal-at-risk-without-better-grid-planning-ministers-warned/?utm_content=UK%E2%80%99s%202035%20clean%20power%20goal%20at%20risk%20without%20better%20grid%20planning%2C%20Ministers%20warned&utm_campaign=edie%20daily%20news%20alert&utm_medium=Email&utm_source=AestraCampaign

[2] <http://elighthouse.eu/content/highland-council>

[3] <http://elighthouse.eu/content/highland-council>

[4]

<https://news.stv.tv/highlands-islands/home-start-caithness-handing-out-more-blankets-despite-windfarms-producing-more-than-enough-energy>

High price of electricity from renewable sources:

UK Electricity prices are far higher than the cost of producing electricity from renewable sources, which hands electricity generators large profits. For example, SSE's Renewables business made £456 million profit on revenue of £776 million in the year to March 2022; so 59% of the revenue was profit[5].

UK prices paid to electricity producers are linked to wholesale gas prices. This resulted in £7.2bn of extra costs for UK homes and businesses in 2021 and 2022[6]. Part of the reason that Scotland pays more than it needs for electricity is that it lost out on £60bn in leasing rights for new offshore wind farms, which were undersold[7].

Profits of renewable energy producers may increase further, if prices stay linked to gas, while costs of renewable electricity generation continue to fall[8].

[5] SSE plc Annual report 2022, note 5 to its financial statements. The £456 million was operating profit before exceptional items. SSE Renewables generates "electricity from renewable sources, such as onshore and offshore windfarms and run of river and pumped storage hydro assets in the UK and Ireland" (Page 225). <https://www.sse.com/annualreport2022/>.

[6] <https://www.edie.net/poor-electricity-market-design-landed-brits-with-7bn-in-additional-energy-costs-during-2021-2022/?regwall=success®ister=success>.

[7] <https://www.heraldscotland.com/news/homenews/23300089.scotwind-scotland-faces-loss-60bn-new-offshore-wind-farms/>

[8] <https://www.youtube.com/watch?v=fXSqWLCaQ5o>

Profits extracted from the Highland Region and the UK:

The UK won nature's lottery with oil and gas in the North Sea, and huge potential for wind and hydropower around the coastline. But we're squandering it, allowing foreign governments and private companies to take the profit.

Large profits are extracted from the Region by foreign governments and big private sector corporations from selling electricity in the Highland Region at high prices.

Nearly half of UK's offshore wind capacity is owned by state-owned or majority state-owned foreign entities such as Equinor (Norway), Orsted (Denmark), Vattenfall (Sweden), and EDF (France). In 2021 "£2.5 billion of energy bills went to foreign state-owned entities"^[9]. But only 0.07% of it is publicly owned by the UK^[10]. If electricity generation in the UK was UK publicly owned, Britons could save nearly £21bn a year, according to new analysis that bolsters Labour's case to launch a national energy company if the party gains power^[11]. Some of these profits from our offshore wind are going to China and the United Arab Emirates, both of whom are accused of abusing human rights^[12]. Much of the rest of UK's offshore wind energy

[9]

<https://news.sky.com/story/nearly-half-of-uks-offshore-wind-capacity-owned-by-state-owned-foreign-entities-analysis-shows-12705500>

[10] Bring energy into public ownership <https://weownit.org.uk/public-ownership/energy>

[11] State-owned electricity generation firm 'could save Britons nearly £21bn a year'

<https://www.theguardian.com/business/2023/mar/07/state-owned-electricity-generation-firm-save-common-wealth>

[12] <https://www.heraldscotland.com/news/homenews/23267705.fury-china-uae-multi-million-offshore-wind-profits-scotland/>

is owned by foreign private sector companies, such as Germany's RWE, and Spain's Iberdrola[13].

Little of these profits, repatriated to abroad by foreign producers, flows back to Scotland or the UK. While the £90 billion allocated by the UK Government to shielding households and businesses from soaring energy costs since September 2021 are in effect subsidies for the fossil fuel industry^[14].

Much profit made by UK producers of renewable energy in the Highland Region, such as SSE, is paid as dividends to shareholders outside the Region. Although SSE donates money to help communities, including those in the Region[15], it invested only £11 million to support NGOs and communities in the year to March 2022, but paid £506 million in dividends[16].

Extraction of profits from Highland Region denies residents and businesses of the Region much of the value of our renewable energy resources.

[13]

<https://news.sky.com/story/nearly-half-of-uks-offshore-wind-capacity-owned-by-state-owned-foreign-entities-analysis-shows-12705500>

[14]

<https://www.euronews.com/green/2023/02/13/energy-crisis-europes-spend-to-shield-consumers-nears-800-billion-where-is-the-money-going>. This article estimates that the Britain allocated equivalent to 103 billion euros to the energy crisis.

[15]

<https://www.sserenewables.com/news-and-views/2022/07/sse-renewables-powers-the-highlands-to-a-net-zero-future/>

[16] SSE plc Annual report 2022, pages 12 and 218. <https://www.sse.com/annualreport2022/>

Highland Region resource profile – key facts and figures:

- A third of the land area of Scotland, including the most remote and sparsely populated parts of the United Kingdom.
- The 7th highest population of the 32 authorities in Scotland (235,540)
- The lowest population density at 8 persons per square kilometer.
- The number of households in Highland was 110,743 (2021).
- The length of coastline including islands at low water is 4,905 kilometers, 21 percent of the Scottish total, and excluding islands is 1,900 kilometers (49 per cent of Scotland).
- The geography of the Highlands is also diverse ranging from fertile farmland around the Black Isle and Cromarty Firth; dramatic seascapes on the west and north coasts; some of the tallest mountains in the British Isles (including the tallest, Ben Nevis, Lochaber); and the largest blanket bog in Europe (Flow country, Sutherland).
- Highland Region also contains an abundance of lochs including Loch Ness, the largest by water volume in the United Kingdom, containing nearly twice as much water as all the lakes of England and Wales combined; and Loch Morar which at 310 meters is the deepest. Other significant lochs include: Loch Maree, Loch Long and Loch Shin.

Solution

Highland Renewable Energy Company (HREC):

The Highland Regional Council should set up a Highland Renewable Energy Company (HREC), as a public sector generator of renewable energy in the Highland Region. It could generate renewable energy from wind, solar, run of river hydro, tide^[17] or wave power.

HREC might be similar to the renewable energy company being set up by the Welsh Government^[18]. However, unlike the Welsh company, its renewable energy developments might not be restricted to Government owned land, and so compete with other businesses in establishing new renewable energy sites.

HREC might either develop renewable energy on its own, taking a 100% stake in some developments, or develop renewable energy in joint ventures with developers^[19], landowners or communities.

The Highland Region has more natural resources for renewable energy than any other region in the UK with Highland Council Leader (Cllr Raymond Bremner) stating that

[17] https://www.heraldscotland.com/business_hq/23343139.scotland-energy-firm-generates-world-first-50gwh-tidal-power/
<https://eandt.theiet.org/content/articles/2023/02/is-it-time-for-tidal-stream-energy/>

[18] <https://www.gov.wales/renewable-energy-developer-wales/about-renewable-energy-developer-wales>.

[19] The Welsh renewable energy company will enter joint ventures with various developers,
<https://www.bbc.co.uk/news/uk-wales-63917570>.

^[19] <https://www.gov.wales/renewable-energy-developer-wales/about-renewable-energy-developer-wales>.



estimates suggest that Highland has the potential to generate a third of Europe's energy demand[20].

So HREC has greater potential for benefiting its local community and economy than the Welsh renewable energy company.

The Highland Region Council could lower prices for HREC electricity sold to residents and perhaps businesses in the Region.

If HREC were owned by the Highland Region Council, profits would go to the Highland Region, where they could be invested in improving infrastructure.

Funding:

- Equity stake invested by the Highland Regional Council, and perhaps by other state bodies such as the Scottish Government as being done by the Welsh Government for its renewable energy company^[21].
- Community grants
- Loan finance

[20] Highland Council Leader says Highland has the potential to be a powerhouse for Europe
https://www.highland.gov.uk/news/article/14608/highland_council_leader_says_highland_has_the_potential_to_be_a_powerhouse_for_europe

[21] <https://www.gov.wales/renewable-energy-developer-wales/about-renewable-energy-developer-wales>, says that a renewable energy developer will be wholly owned by the Welsh Government, and that the income from it will come back to the Welsh Government. The Welsh Government will therefore have a 100% equity stake, so that it can receive all of the profit and bear the ultimate financial risk of the developer.

Community owned company:

If the Highland Regional Council is unwilling or unable to set up an energy company such as HREC, communities could alternatively take the matter into their own hands by forming community owned renewable energy projects through schemes such as Energy4all[22], and as being done near Bristol[23].

Benefits of the solution:

Fuel poverty. A government-owned renewable energy generator could cut electricity bills[24]. Analysis by the Trades Union Congress suggests British households will each miss out on up to £4,400 over the next two years because the UK does not have a nationalised energy generation company[25]. HREC, as a local government-owned company, could reduce fuel poverty in the Highlands by making energy free for basic heating and power of less well-off households in the Highlands, similar to the first £12,750 of income being free from income tax. Or HREC prices could be reduced, such as the relatively low starter rate of income tax on incomes from £12,750 to £14,732, perhaps with an admin charge. The scheme could exclude second homes and properties

[22] <https://energy4all.co.uk/about-us/>

[23] https://www.theguardian.com/environment/2023/feb/09/england-tallest-wind-turbine-bristol?utm_term=.63ee1bf04577fca13561670e7ec43073&utm_campaign=DownToEarth&utm_source=esp&utm_medium=Email&CMP=greenlight_email

[24] <https://www.bbc.co.uk/news/uk-wales-63917570>

[25] <https://www.org.uk/research-analysis/reports/public-ownership-clean-power-lower-bills-climate-action-decent-jobs>

- above a certain value, say £250,000, to make the scheme viable (average house price in the Highlands is approx. £220,000[26]).
- **Improve educational achievement and attainment.** “We know that children’s educational achievement and attainment can be improved if they go from living in a cold home to living in a warm home,” says Dr. Rose Chard, fuel poverty and consumer vulnerability lead at Energy Systems Catapult. “We know that people are more likely to be able to stay in work if they are well, if they are warm at home. There is real opportunity for this sort of innovation because the effects of living in a cold home are so widely spread across the population.”[27]
- **Reduce deaths and pressure on the NHS.** “Underheating can be fatal: It’s the cause of roughly 10,000 deaths in the UK every winter, giving the country the sixth highest rate of excess winter deaths in Europe. People living in overly cold homes also cost Britain’s taxpayer-funded National Health Service an estimated £860 million (\$1 billion) each year. Now, an NHS pilot program aims to tackle both problems at once. Between November 2022 and March 2023, the trial program is covering the heating costs of 1,000 vulnerable patients selected by the NHS based on pre-existing conditions, ... that are impacted by cold weather, as well as their hospital-admission track record. ... Its goal is to determine whether such an approach is more affordable than the status quo, and more effective at saving lives”. The program is being run in the Tees Valley in the north of England and Aberdeenshire in Scotland. [28]

[26] <https://www.zoopla.co.uk/house-prices/highland/>

[27] [A UK Pilot Program Is Paying People’s Heating Bills for Them.](https://www.energyconnects.com/news/gas-lng/2022/december/a-uk-pilot-program-is-paying-people-s-heating-bills-for-them/)
<https://www.energyconnects.com/news/gas-lng/2022/december/a-uk-pilot-program-is-paying-people-s-heating-bills-for-them/>

[28] *Ibid.*

- **Attract business and industry and more employment.** Make business in the Highlands more competitive and attract new businesses and industry to come to the Highland by selling them energy at discounted rates.
- **Help achieve Net Zero targets.** Encourage people to move away from heating their homes with fossil fuels if they get virtually free or cheaper electricity to power electric heating systems such as heat pumps etc. This will in turn help Highland Council area reach Net Zero carbon emissions. It will also contribute towards achieving the UK's Net Zero target[29].
- **Improved standard of living.** A higher living wage for people in the Highlands, if businesses pass some savings from cheaper electricity to their employees.
- **Improved infrastructure and amenities.** Money made by HREC from selling energy to other areas of Scotland and the UK could be invested in better infrastructure and services for people in the Highlands.

[29]

https://www.edie.net/uks-2035-clean-power-goal-at-risk-without-better-grid-planning-ministers-warned/?utm_content=UK%E2%80%99s%202035%20clean%20power%20goal%20at%20risk%20without%20better%20grid%20planning%2C%20Ministers%20warned&utm_campaign=edie%20daily%20news%20alert&utm_medium=Email&utm_source=AdestraCampaign