

Innes Community Council

Minute of special Zoom meeting held

Tuesday, 21st January, 2025

Re Hydrogen plant proposal for Marypark.

Attendees: - Toby Christie, Chair, James A Mackie, Crinan Dunbar, Angus Fettes.

Apologies: - Peter Fitch, Sand Anderson, Kenny Henderson.

JM addressed the meeting explaining the single issue was to discuss the proposals for a hydrogen production plant at Marypark on Spey Side and what implications it may have for the Innes Community Council area and the River Spey in particular. Water extraction within the River Spey catchment area is already very high. It is estimated that less than 50% of rainfall in the area reaches the sea because of current water extraction licences.

JM described the location and what was planned. The site was to cover approximately 40 acres opposite Grant Transport yard in Marypark. The plan is to build a plant that would produce hydrogen (with oxygen as a by-product) using the electrolysis process of using electricity to split water into hydrogen and oxygen. (See <https://www.energy.gov/eere/fuelcells/hydrogen-production-electrolysis>) Fresh water would be sourced through a borehole. Information from the developer is that the production process will require 500,000 litres of water per day and produce 12,800 kgs of hydrogen. The process uses 10 litres of water to produce 1 kg of hydrogen. Research has shown that more than 50% of the water extracted will be used for cooling the manufacturing process. The site developer has already received a £3.1 million grant from the Scottish Government to develop the proposal. That was part of a Scottish Government initiative in 2022 where grants were given to approximately 100 companies to develop hydrogen production across Scotland.

Through FOI's to Moray Council and the Scottish government, it was ascertained that no environmental studies have been commissioned by either of them to assess the full environmental impact of using fresh water for the production of hydrogen. Hydrogen is being presented by the Government as an alternative to diesel fuel and natural and LPG gas. In 2023, the consumption of diesel alone within the UK was 23 million tonnes. It takes 10 litres of water to produce 1 kg of hydrogen with a similar or higher amount used for cooling purposes.

Concerns raised included: -

A vast volume of water is to be extracted by a borehole. What impact would this have:-

From how big an area would the water be drawn from the water table? Would it reach into the catchment area of the Findhorn?

Would the extraction process reduce water levels in the River Spey? If so what impact would that have on water temperatures in summer months? Higher temperatures would mean lower oxygen levels which would be a threat to salmonids.

Lower water levels would lead to less availability of feed sources for juvenile fish.

Low water levels would increase the risk of predation on juvenile fish in particular.

Would the extraction process reduce water levels in tributaries of the River Spey thus reducing the number of areas used by salmonids for spawning?

Would reduced water levels in the river and tributaries have any adverse impact on wild animals, birds, plants and insects?

Lower water levels especially during periods of normal low water flows would reduce the ability of the river to wash eroded sand and gravel out to sea, thus causing greater build-up of sediments in the river bed and banks which would increase flooding during periods of heavy rain.

Would the combination of the above have an impact on the run of salmon and thus be detrimental to the angling tourism business in the Spey Valley?

Would extracting water from the water table have an impact on land use? Would lower water table levels affect the growth and profitability of agricultural crops and forestry plantations? (drier land thus an artificial drought situation?)

Would the extraction of water from the water table have an adverse impact on forestry plantations and areas of peat, thus reducing their ability to capture carbon?

Would the volume of water to be extracted have any impact on other major industries within the area that rely on fresh water for the production of whisky? Would the proposed plant reduce the volume of water currently naturally available to the distilleries? Would the proposed extraction reduce the ability of distilleries to expand production in a growing industry? By altering the water table levels would the planned proposals alter the water quality being used by the distilleries in a way that may alter the flavour of the finished product?

What impact would the proposed plant and water extraction have on the Scottish Water extraction plant near Inchberry, water that is used by households and commercial premises across Moray?

Would the proposed plant have an overall adverse impact on the economy of Moray?

Overall agreement that Innes Community Council should take the lead in organising a meeting with interested parties as discussed. The chair volunteered to draft a letter to be sent out on the subject from ICC and SEP. Agreed groups invited should include Speyside Community Council, Councillors from both electoral wards, estate factors/fishery managers, Spey District Salmon Fishery Board, Angling Associations, and representatives of the farming community.

CD agreed to write to Moray Council asking what environmental studies they would require to be carried out should a planning application be submitted for a hydrogen production plant.

AOCB

Was agreed that JM would organise a Teams meeting with SSEN and others to discuss SSEN's thoughts on how they can protect their assets from future climate change weather events.

Demand for bio- and hydrocarbon petrol and diesel fuels in the United Kingdom (UK) from 2000 to 2023

<https://www.statista.com/statistics/382036/demand-for-petrol-and-diesel-fuels-in-the-united-kingdom-uk/>

Links to Government papers on green hydrogen production

Hydrogen action plan

<https://www.gov.scot/publications/hydrogen-action-plan/>

A Unique Opportunity for Scotland

<https://www.gov.scot/publications/hydrogen-action-plan/pages/4/>

Hydrogen Action Plan

See page 18

<https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2022/12/hydrogen-action-plan/documents/hydrogen-action-plan/hydrogen-action-plan/govscot%3Adocument/hydrogen-action-plan.pdf>

Realising Scotland's Hydrogen Potential: Plan for Exports

<https://www.gov.scot/publications/trading-nation-realising-scotlands-hydrogen-potential-plan-exports/>

<https://www.gov.scot/publications/trading-nation-realising-scotlands-hydrogen-potential-plan-exports/pages/8/>

A Trading Nation: Realising Scotland's Hydrogen Potential - A Plan for Exports

<https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2024/11/trading-nation-realising-scotlands-hydrogen-potential-plan-exports/documents/trading-nation-realising-scotlands-hydrogen-potential-plan-exports/trading-nation-realising-scotlands-hydrogen-potential-plan-exports/govscot%3Adocument/trading-nation-realising-scotlands-hydrogen-potential-plan-exports.pdf>

Scotland: an ideal home for hydrogen energy investment

<https://www.sdi.co.uk/business-in-scotland/find-your-industry/energy-transition-industries/hydrogen>

Support for green hydrogen

<https://www.gov.scot/news/support-for-green-hydrogen/>

Supply Chain

<https://www.gov.scot/publications/trading-nation-realising-scotlands-hydrogen-potential-plan-exports/pages/5/>

Electricity production, consumption and market overview

https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Electricity_production,_consumption_and_market_overview

United Kingdom Energy Information

<https://www.enerdata.net/estore/energy-market/united-kingdom/>