

SVALBARD'S GREEN GAMBLE

As Norway's isolated islands leave coal mining behind, Huw Paige asks if it is realistic for them to become a green exemplar for the Arctic.

If you die on the Norwegian archipelago of Svalbard, it's best if you've planned ahead. Burial in the permanently frozen ground is prohibited as it prevents decay, and healthcare is very basic, so anyone seriously or terminally ill must leave for the mainland.

It's the same story for those starting out in life: the lack of a maternity hospital on the islands means that expectant parents make a similar journey. These realities demonstrate the problem faced by Longyearbyen, Svalbard's main town: this is not a place set up for growing up, and nor for growing old. Most people come here to work for a few years, then leave.

Governed by a 1920 treaty which allows visa-free access for citizens of signatory countries (there are nearly 50), Svalbard is a place of great change, warming six times faster than the global average.¹ The islands got 4°C warmer between 1971 and 2017 and until the 1990s, Longyearbyen primarily served several coal mining operations.²

Svalbard is home to the last Norwegian coal mine, Mine 7, and human habitation in the deeply hostile environment has

long been dependent on the industry for energy and jobs. The mine's closure later this year will represent a decisive shift towards Svalbard as a green exemplar, depending on ecotourism and scientific research for its economy and renewable sources for its energy. Longyearbyen will lead the way as a self-sufficient community, demonstrating to the world that the threats of melting ice and warming temperatures need not be met with a rush to extract fossil fuels, and that the Arctic, where inter-state tensions are increasing, can be a place of innovation.

At least, that's what the Norwegian government is planning. The islands have already been billed as a 'showcase for renewable energy solutions in the Arctic'; symbolizing both Norway's commitment to an Arctic presence and its green credentials.³ But given that sustainable technologies face myriad challenges thanks to the islands' inhospitable conditions, can Svalbard really go green?

The closure of Mine 7 was directly prompted by the retirement of the town's elderly coal-fired power station in favour of its back-up diesel generator in 2023, a

decision made by the national and local governments two years prior. Since then, diesel has remained Longyearbyen's main energy source, with the mine only staying open this long to take advantage of high energy prices and German demand for coal due to the Russia-Ukraine war.

As the four-month long polar night renders solar panels ineffective for much of the year and the savage Arctic conditions put any wind turbines at risk, progress towards a true green transition is by necessity gradual. A large battery park installed in late 2023 has helped to regulate supply, but is only as sustainable as the energy sources used to power it.

Despite the challenges with renewable technologies, Longyearbyen can't rely on imported diesel forever, and this stopgap is also threatened by the extraordinary climate. The local newspaper, *Svalbardposten*, has reported a series of equipment failures and fuel impurities at the diesel plant which led the company responsible, Svalbard Energi, to explore the feasibility of turning the coal power plant back on.⁴

A failure of planning?

As responsibility for Svalbard's energy passes from the local authority to the Norwegian government – as part of a concerted effort to increase national control over the islands – a cheap, green solution is sorely needed. Grete Hovelsrud, a research professor at Nord University in Norway, believes that coal was abandoned too quickly, before any affordable alternatives were in place.

'I think that it was rushed', she says. 'It was a symbolic act in a way... it looked really good for Longyearbyen to be a zero carbon emission place.'

The council's community development manager Anne Vera Skrivarhaug disagrees, explaining that abandoning the coal power plant was unavoidable. It was a 'difficult lady', she says, causing regular blackouts having exceeded its planned lifespan.

Regardless, Zdenka Sokolíčková, a Czech researcher who lived on Svalbard from 2019 until 2021, highlights how the lack of ready-made alternatives attracted ire from residents. 'I think many people think if there were a green solution ready, do it, but not if it's this tricky,' she says. She has observed that 'the feelings that are being collectively shared in the bars are just utterly negative'. A 2024 survey by the research foundation Cicero found



that 60 per cent of Longyearbyen residents favoured the reintroduction of coal power.⁵

Even if Longyearbyen were able to use exclusively renewable energy sources, emissions from the transport of goods and people would still be vast. In 2023, the year of the transition from coal to diesel power, direct emissions per person for the town's residents were around 50 times higher than Oslo's. A large part of the explanation for this is Svalbard's remoteness; Longyearbyen is 850 kilometres from the Norwegian mainland, and 1,300 kilometres from the North Pole.

There is also an environmental cost from tourism. The islands' pristine isolation has long made them a haven for adventure travellers who are happy to hike with a gun over one shoulder in case of a polar bear encounter. But in recent decades, there has been a growth in last-chance tourism – the morbid pursuit of natural wonders before they disappear – and the industry has ballooned. Svalbard's 2,600 residents now welcome over 100,000 tourists per year.

While Isabelle Johansen of Visit Svalbard, a body representing the local

tourism providers, says the industry aims to 'reach travellers who value sustainability, responsible tourism, authentic experiences', she accepts that 'complete sustainability is not achievable'. Other than by sea, flights of 90 minutes from Tromsø or 3 hours from Oslo are the only way for tourists to access the islands.

Sokolíčková says that there is no simple answer: 'Moving from coal mining to tourism is not clear cut. You can't say "now we've got rid of something dirty and we're replacing it with something clean".'

Demographic shift

The arrival of 'outsiders' also brings its own political problems. Coal mining, managed by the Norwegian state firm Store Norske, was a Norwegian-majority industry. In contrast, Svalbard's tourist industry is multinational, taking advantage of the Svalbard Treaty's visa provisions. Similarly, Ny-Ålesund, a research station to the north of Longyearbyen, is home to many states' Arctic science operations. The Norwegian government has long aimed to increase the proportion of its citizens on the islands, culminating

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An old coal train in Ny-Ålesund on the island of Spitsbergen, Svalbard.

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A group of hikers relax near the remnants of transportation equipment for a coal mine in Longyearbyen, Svalbard in September 2016.

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most recently in preventing people who have not previously lived on the Norwegian mainland for at least three years from voting in local elections.⁶

But why does Norway feel so insecure about Svalbard? The answer lies 55 kilometres to the west of Longyearbyen, accessible via snowmobile in winter and boat in summer: the Russian settlement of Barentsburg.

The unique nature of the Svalbard Treaty means other signatory nations may conduct commercial operations on Svalbard, an opportunity which Russia has taken in the form of its own coal mine. As tensions between the neighbours have increased following Russia’s invasion of Ukraine, Norway is today less comfortable with the Russian presence.

With shipping lanes opening up in a warming Arctic, and Norway increasing its subsea mining operations, Svalbard could prove a pivotal territorial asset. Tiril Vold Hansen, a researcher at Nord University, says the islands are ‘the crown jewel in Norway’s Arctic identity’, making Norway ‘a much bigger player in the Arctic’.

Vold Hansen suggests that Svalbard’s symbolic significance is part of the reason for the state’s emphasis on a green transition. ‘Norway wants to be able to be an important player in international climate negotiations,’ she says. ‘That is very difficult for them to do with continued coal mining in what is supposed to be one of Europe’s best-managed wilderness areas.’

Alongside its history with coal on Svalbard, Norway is the world’s fourth

largest exporter of natural gas. Attempting to pioneer renewable technologies in Longyearbyen, even if all that has been achieved so far is a move to a stuttering diesel generator, is an easier PR win than closing the rest of the country’s fossil fuel industry.

‘It costs a lot of money to run Longyearbyen, it’s hugely subsidized’, says Hovelsrud. ‘It’s there because the Norwegian government wants it to be there.’

A chosen path

While the residents of Longyearbyen serve their government’s wider ends, with their physical presence underlining Norwegian control, the archipelago will remain a political and environmental exception. Svalbard may well become a green exemplar in time, if only because the Norwegian state is able to subsidized energy bills and override local resident concerns.

Returning to coal is likely not an option, with the mine and power plant closed and no desire from the state to see that reversed, so the only way to get away from expensive imported fuel is to develop other local energy sources. Svalbard’s path, one of ‘sustainable’ tourism and work on pioneering Arctic green technologies, has been chosen for it.

The last-chance tourists will keep coming, as renewable technologies are attached to houses at risk of subsiding into once-frozen ground. The risk of avalanches, like the one which killed one man and consumed 11 homes on the outskirts of Longyearbyen in 2015, will only increase.⁷

As climate change accelerates, it destabilizes fragile polar habitats and wears away the spectacles tourists come to see. In Svalbard, where death is forbidden, loss is all around. ●

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¹ Joseph Phelan, ‘Svalbard: the Arctic islands where we can see the future of global heating’, *The Observer*, 13 May 2023, [a.nin.tl/heat](https://www.theguardian.com/environment/2023/may/13/svalbard-arctic-islands-global-heating) ² Gudrun Urd Sylte, ‘Svalbard has experienced warming of 4°C the last 50 years’, University of Bergen, 4 February 2019, [a.nin.tl/uniberger](https://www.uib.no/en/2019/02/svalbard-has-experienced-warming-of-4c-the-last-50-years) ³ UNIS, Store Norske and SINTEF, ‘Svalbard will be a showcase for renewable energy solutions in the Arctic’, The University Centre in Svalbard, 15 March 2022, [a.nin.tl/unis](https://www.unis.no/en/2022/03/svalbard-will-be-a-showcase-for-renewable-energy-solutions-in-the-arctic) ⁴ Martin Kristiansen, ‘Svalbard Energi is still working to get operations in order’, *Svalbardposten*, 28 October 2024, [a.nin.tl/energi](https://www.svalbardposten.no/2024/10/28/energi) ⁵ Ole Magnus Rapp, ‘The people of the city want to return to coal’, *Svalbardposten*, 10 June 2024, [a.nin.tl/coal](https://www.svalbardposten.no/2024/06/10/coal) ⁶ NewsInEnglish.no, ‘Svalbard’s foreign residents lose their voting rights’, 20 June 2022, [a.nin.tl/voting](https://www.newsinenenglish.no/2022/06/20/svalbard-foreign-residents-lose-their-voting-rights/) ⁷ Nancy Bazilchuk/NTNU, ‘A force more deadly than polar bears’, The University Centre in Svalbard, 16 February 2017, [a.nin.tl/polar](https://www.unis.no/en/2017/02/polar)