Achieving climate goals is impossible without significant transformation of our energy systems in the way that reduces reliance on fossil fuels and increases the share of low-carbon energy in the form of renewables and other options, such as nuclear energy. While it is often assumed that the energy transition process is environment and community-friendly, there is a growing number of examples of energy transition projects that led to injustice and environmental harm. The Arctic is now exception – October 2023 saw protests in Oslo, demonstrating against Government’s inaction over Europe’s largest onshore windfarm, located in the Fosen region in Norway, violating the rights of the Sami indigenous people.\(^1\) Two years ago, the Supreme Court of Norway ruled that the project violated article 27 of the International Covenant on Civil and Political Rights, as the “wind power development will have a substantive negative effect on the reindeer herders’ possibility to enjoy their own culture on Fosen”.\(^2\) Despite this landmark decision, the turbines are still operating and there has been no effective remedy.

Similar issues and legal challenges arise in other Arctic countries. For example, in Sweden wind energy developments have also been challenged for having negative impacts on indigenous reindeer husbandry.\(^3\) However, Arctic is not a homogenous region, and elsewhere in the North, challenges of a just transition may take different forms.

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\(^1\) Associated Press, Norway Activists Press on with Their Protest against Wind Farm on Land Used by Herders (12 October 2023).

\(^2\) Supreme Court of Norway, Judgment 11 October 2021, para 144.

\(^3\) Cambou et al, “Reindeer Husbandry vs. Wind Energy”.
What is common is that the burdens and opportunities of energy transition are not always distributed fairly which leads to injustice. A truly just energy transition requires a robust legal and policy framework supported by institutional transformation. While there is no unified definition of just transition, it broadly refers to fair distribution of burdens and benefits of the transition to a low-carbon economy. The origin of the just transition concept dates back to the 1970s when it was born out of labour and environmental movements as an attempt to reconcile emerging environmental imperatives with achieving justice for workers. Over time, a wider approach emerged, particularly in academia, bringing together all elements of society in transition, and encompassing energy justice, climate justice, and environmental justice.

In the Arctic, challenges presented by low-carbon energy projects can be amplified due to remoteness, importance of sites and habitats for indigenous local communities, and increased impacts of climate change. While the Arctic is not homogenous, identifying risks, opportunities, and best practice can be instrumental in developing a robust framework for just energy transition in the region. Just transition challenges do not only concern low-carbon energy projects. The wind down of the oil and gas activities will present challenges for the labour market and economic development in the fossil fuel production regions in the Arctic, such as Alaska, areas of Canada, Norway, and Russia. At the same time, other Arctic States, like Denmark, Greenland, and Iceland are aiming to or already pledging to not approve any new oil and gas projects. There are further concerns about justice implications of climate mitigation and adaptation projects.

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4 Heffron and McCauley, “What is the ‘Just Transition’”.
5 Pinker, Just Transitions: A Comparative Perspective.
6 Jenkins, et al., “Politicising the Just Transition”.
7 Naalakkersuisut, “Stop oil exploration in Greenland”; Tómas, “Bill to Ban Oil Exploration to Be Resubmitted”; Beyond Oil and Gas Alliance website.
In the past few years, the research agenda turned to just transition in the Arctic. Some excellent contributions were published, for example, an interactive website on “The Changing Arctic and Just Energy Transitions” by Julia Loginova. Darren McCauley et al, created a model to “evaluate energy and equity aspects of Distributional, Procedural and Restorative” justice to “gauge which states are most likely to provide leadership in the global energy transition”. Corinne Wood-Donnelly is leading the JUSTNORTH project evaluating existing economic activities in 17 case studies and “bringing the values of Arctic stakeholders to economic development decision-making through understanding current practices, policies, and perspectives of development in the Arctic”.

This special issue was inspired by the project “Just Energy Transition in Scotland and the Arctic: Managing Environmental and Social Impacts of Low-Carbon Energy Projects”. The project was funded by the Arctic Connections Fund of the Scottish Government and ran in 2021-2022. As part of this project, scholars from Scotland, Iceland, Greenland, Norway, Finland, and Canada presented their research looking at various aspects of just transition in their jurisdictions. Researchers took an interdisciplinary approach to the concept of just transition and discussed the challenges of operationalising a well-meaning but vague concept.

The special issue starts with an interdisciplinary exploration of ice geoengineering in the Arctic with a focus on regulation and indigenous rights. In this article, Romain Chuffart et al. question the nature of ice geoengineering projects, for the purposes of regulation. Should they be viewed as resource extraction activities or scientific projects, or climate adaptation? The

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8 Loginova, “The Changing Arctic”.
9 McCauley, et al. “Which states will lead a just transition for the Arctic?”.
10 JUSTNORTH website.
article explores whether under each of these scenarios, does the regulation afford enough protections to ensure that Indigenous Peoples’ rights are included in the decision-making.

Next up, from the abovementioned JUSTNORTH project, Hannes Hansen-Magnusson and Charlotte Gehrke investigate stakeholders’ views on how to make Arctic cruise tourism more just for the host communities. The authors explain that cruise tourism has a dubious reputation for conspicuous consumption and associated environmental harm. Cruises to the Arctic promise passengers pristine landscapes and authentic and engaging experiences interacting with local and Indigenous communities. The article presents a critical analysis of various tools for improving justice and sustainability outcomes for cruise tourism in the Arctic.

In the following article, Rachael Lorna Johnstone and Karin Buhmann, offer a different perspective on a low-carbon energy project in the Arctic. While often the narrative around such projects is about a host community opposing the development, in the case of the Káráhnjúkar hydropower project in Iceland, the situation is not as straightforward. Káráhnjúkar is the largest ever industrial project in Iceland and, according to the article, had national as well as local implications, both responding to and in turn changing public expectations regarding participation, environmental impact assessment and community engagement. The articles deliver insights into key aspects of the just transition that can be applied to new projects both in Iceland and elsewhere, focusing in particular on employment and community benefits, environmental impact assessment and public participation.

Finally, in her article Alexandra Middleton, maps the portrayal of Small Modular Reactors in Canada, where there already is an established nuclear supply chain and technical capabilities. The article analyses publicly available discourse to examine various perspectives on SMRs, emphasising the most prominent viewpoints, including Indigenous perspectives. The results
in this article provide an exploration of the intricate difficulties and potential benefits associated with SMRs in the context of Canada's shift towards cleaner energy sources.

As more attention is turning to the Arctic in the search of best practices and cautionary tales on just transition, it is important to bring to light these case studies and explorations. Just transition framework can help not only guide future projects to be more inclusive and fair, but also to re-evaluate the existing projects, legal and policy frameworks, to identify gaps and areas for improvement.

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