Session K1: Arctic Energy: Hydrocarbon Riches & Local Energy Vulnerability

Session organizers
Daria Gritsenko

Discussant: Veli-Pekka Tynkkynen, University of Helsinki

Session description
According to the U.S. Geological Survey 2008, an estimated 13% of the world's undiscovered oil and 30% of gas resources are located beyond the Arctic Circle. These abundant energy resources are distributed unevenly, so that many Arctic communities are exposed to energy security risks. Remote settlements rely largely on diesel for energy production, which results in high consumer prices and a negative impact on the environment and public health. These systems are also very vulnerable to severe weather conditions and accidents. In the past few years, local governments in Canada, Russia and the US have had pilot projects for switching remote villages from diesel-generated to wind- and solar-diesel hybrid power. Yet, renewables do not take hold easily in the Arctic.

This panel sets to unveil how Arctic energy inequality is produced and how it can be addressed by pondering:

1) How does the narrative of 'resourceful Arctic' affect local energy security?

2) How do regional authorities and communities engage with federal governments and transnational businesses in renewable energy projects?

3) How can policy making help remote off-the-grid areas to benefit from renewable energy systems?

Order of presentations

Time: VIII: 21 June, 14:15-16:00
Room: Y20, House Y

1. Frozen assets in a globalized Arctic: creating a path for resilient innovation in the high north
Victoria Hermann
University of Cambridge

3 Local and national perspectives on the modernisation of heating systems with the help of renewables: the case of Arkhangelsk
Hilma Salonen
University of Helsinki

Paper abstracts

1. Frozen assets in a globalized Arctic: creating a path for resilient innovation in the high north

Victoria Hermann, University of Cambridge

In the Arctic, natural resource production and pricing is often used as a proxy to measure community wellbeing. More recently, many of these ventures have been dubbed 'sustainable' to promote good press and economic investment. But often this type of sustainability does not help communities build adaptive capacities for long-term growth in a region seeing rapid connectivity, social, and climate changes. The proposed paper argues that a more globalized North and volatile oil markets have created a path to redefine development away from extractive industries and towards human-centered innovation. The proposed paper and presentation will offer an analysis of that opportunity by specifically focusing on microgrid and localized energy research, development, and implementation in the North American Arctic. It will argue that the prospect of stranded assets in fossil fuels, climate change policy, and the globalization of the Arctic have offered a chance to invest in resilient development and build community capacity to deal with the challenges of the 21st Century by supporting localized renewable energy projects in Alaska and northern Canada.
First, the paper will examine the triggers – both proximate and systemic – of asset stranding in Arctic hydrocarbon resources. Part two of the paper will contend that stranded oil assets provide an opportunity to move away from unequal energy development towards resiliency through investments in localized renewable energy projects. It will examine the potential for a transformation from current development structures based on exporting raw materials to a more resilient development platform based on exporting knowledge. It will focus on economic clusters of technology and technical expertise innovation in remote renewable energy and microgrid systems. The research will use path dependence theory and the rich scholarship on Arctic sustainable and resilient development to understand both the theoretical dimension and paradigm shift of such a transformation.

3 Local and national perspectives on the modernisation of heating systems with the help of renewables: the case of Arkhangelsk

Hilma Salonen, University of Helsinki

Despite the idea of the Russian Arctic as a very energy-rich area, due to its vaste size it is clear that some regions are actually very energy-poor. However, they may have other resources such as forests, giving the Russian state finally a reason to show interest in pushing the use of local, renewable energy sources instead of tapping into subsidies available for importing heating oil and coal. By focusing on the case of modernising the district heating systems of Arkhangelsk, I examine the how a simple plan of replacing boilers burning fossil fuels with ones burning biomass products becomes tangled with several political, financial and practical issues in its way from Moscow to Arkhangelsk. Does the government in the end have the same aspirations -- or even the same understanding -- as the local actors? ? How do the prospects of renewable energy development in this field correlate with the broader objectives of the Russian Arctic development?