

Invitation and Call for Papers



International conference

Arctic energy supply – which way will Greenland choose?

Production, Distribution, Management and Legislation

Sisimiut 16 - 18 March 2010



Introduction

The cold climate and dark periods in the Arctic results in relatively high and growing energy demands. Most of the energy supply is based on imported oil. Fluctuating oil prices, dependency on unstable countries and the vulnerable Arctic environment mean that the existing systems are outdated and new solutions are needed.

The Arctic energy supply mainly involves relatively small, isolated systems with different sizes. Modification of these systems to comply with new sustainability requirements is a major challenge for the utility companies.

This conference will be concerned with possible solutions within the areas Production, Distribution, Management and Legislation.

We welcome contributions, papers and posters within the three main areas:

1. Future energy production in the Arctic

- Hydropower
- Incineration plants
- Wind turbines Notification of acceptance or refusal
- Solar panels for heat and electricity
- Heat pumps and refrigeration systems, hydro/geothermal Deadline for the submission of your final paper
- Fuel cell systems, what are the possibilities?
- Which sources will contribute to the new Arctic energy systems?
- How to design an optimal hybrid power system?
- What experiences have been gained with different technologies in the arctic?

2. Distributions systems, management and security of supply

- Flexible consumption, does the consumer have an incentive?
- Should district heating and cooling be used in management of power systems?
- District heating and industrial cooling for towns and villages
- Local power and heat production, solar panels etc.
- How do we manage the power system in an intelligent way?
- How do we handle large-scale consumers?

3. Local and national strategies

- Which resources does Greenland focus on?
- How do we make an optimal and economical supply of both small and large systems?
- Will Greenland use flexible prices to minimize peak loads?
- How can Greenland stimulate private investments in the energy area?
- How can we handle local production to the grid, settlement prices etc.
- Can we minimize local pollution from existing incineration and oil plants?
- What are the opportunities to support development in the area by proper system design and intelligent pricing?

A conference publication will be available at the conference and distributed to all participants.

The conference will be held in mainly English. Translation from/to Greenlandic or Danish will be provided.

See you in March in Sisimiut.

Dates

20 December 2009:

Deadline for paper proposal (max. 500 words).

Send to kasja@byg.dtu.dk

Mid-January 2010:

Notification of acceptance or refusal

15 February 2010:

Deadline for the submission of your final paper

(4-10 pages in length). Please send to nih@byg.dtu.dk

1 March 2010:

Distribution of final programme

16-18 March 2010:

Conference in Sisimiut.

Authors will retain copyright, but accepted papers will be published in the conference book.

Location and prices

The conference will be held in Sisimiut at Sanaartornermik Ilinniarfik, the Building and Construction School, 3911 Sisimiut, Greenland.

- Conference fee including accommodation and gala dinner at Knud Rasmussenip Højskolia (4 nights from 15th to 18th March 2010), meals and gala dinner: 2.500,00 DKK
- Conference fee, meals and gala dinner (excluding accommodation): 750,00 DKK

Organizing Committee

Arne Villumsen, Professor, Head of Centre, Arctic Technology Centre
Rasmus Sembach Olsen, Manager, Climate - and Energy office, Government of Greenland
Zenica G. Larsen, Project consultant , KANUKOKA, National Association of Greenlandic Municipalities
Esben Larsen, Associate Professor, Ørsted DTU
Kurt S. Hansen, Research Associate Professor, Department of Mechanical Engineering, DTU
Martin Otto Laver Hansen, Associate Professor, Department of Mechanical Engineering, DTU
Niels Hoedeman, Secretary, Arctic Technology Centre
Kasper Rønnow Jakobsen , scientific assistant, Arctic Technology Centre

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<http://www.arktiskcenter.gl>

Registration

Name: _____

Title: _____

Organization: _____

Address: _____

Tel: _____

Email: _____

Webpage: _____

I would like to participate in the conference (750 DKK)

I would like to have accommodation and meals provided by Knud Rasmussenip Højskolia, 16-18 March 2010 (2.500 DKK)

I would like to make a presentation with the following title: (I agree that my data will be published on the list of participants)

Send registrations and other information to:

The conference secretariat, Att. Niels Hoedeman, Arctic Technology Centre, Technical University of Denmark (DTU), DK-2800, Kgs. Lyngby, tel. +45 45252166 Fax. +45 4588 5935. **Email: nih@byg.dtu.dk** <http://www.arktiskcenter.gl>

ARCTIC TECHNOLOGY CENTRE



NAALAKKERSUISUT
GOVERNMENT OF GREENLAND



DTU Electrical Engineering
Department of Electrical Engineering

DTU Mechanical Engineering
Department of Mechanical Engineering

