energies

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Special Issue:

Solar Energy Harvesting in Northern Territories

Deadline for manuscript submissions: 15 January 2022

Special Issue Editor: Lavinia Rogojina

Guest Editor:

Dr. **Stanislav Boldyryev**

Department: Research School of Chemical and Biomedical Sciences,

Institution: Tomsk Polytechnic University

E-Mail**: sboldyryev@tpu.ru**

Interests: Energy Saving, Process Integration, Total Site Integration, Waste Heat Utilisation, Energy Transition, Process Simulation, Heat Exchanger Network Design & Retrofit, Heat Transfer Enhancement.

Special Issue Information

Summary:

The sun's energy reaching the earth is most widely used to generate heat and power, including a combined generation of heat and power. The rapid population growth and urbanization lead to the global economy's growth that significantly expands global demand for clean water and energy, and affects sustainable development. Northern territories become more available due to climate change, but the Arctic and permafrost regions' eco-systems are more sensible when affecting pollutants. High transportation cost and other issues limit fossil fuels for heating, ventilation and hot water supply in Northern Territories. Using fossil fuels for energy generation exhausts the supply of non-renewable resources and damages environmental systems. The use of solar use in many countries was investigated, and global maps show the significant potential of this kind of renewable energy.

The duration of sunshine in northern territories, at some places, is very high, which is favourable for the use of photovoltaic systems or the use of solar energy for hot water supply. Sustainable development of northern territories is naturally associated with energy-saving and enhancement of energy efficiency by applied technologies and equipment, including clean and renewable energy. Current Special Issue focuses on the main problems when implementing the solar energy in Northern Territories, which have their features. It is essential within the global energy transition and sustainable energy grids to reduce modern society's environmental pressure.

Keywords

Solar Energy, Renewable Energy, Northern Territories, Photovoltaics, District Heating and Cooling, Energy Transition, Energy Efficiency, Energy Planning, Smart Grids.