

SMART ENERGY MANAGEMENT MODEL (SEMM)

Community Engagement

Messaging Apps Civil behaviour public displays dashboard



Mapping



Data

standards big data INTEGrated ai



Networks

5G lora internet wifi sigfox



Sensors

air temp humidity co2 quality lumination indoor outdoor



Pilot
SMART
STORAGE

Pilot
public
buildings

Pilot
DISTRICT
ENERGY

Pilot
Centralised
charging

Pilot
SMART
GRID

Pilot
public
transport

Pilot
PUBLIC
LIGHTING

SMART city models and digital transformation technologies provide the foundation for the SEMM adapted for communities in NPA regions. This model provides a technological framework to monitor & analyse energy usage in these communities.

Advanced ICT tools facilitate an integrated energy communications channel between public authorities & energy consumers. Public authorities will use the SEMM to raise awareness and energy consumers can view energy data outputs relating to their communities.



FOR MORE INFORMATION

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PROJECT PARTNERS



Northern Periphery and
Arctic Programme
2014-2020



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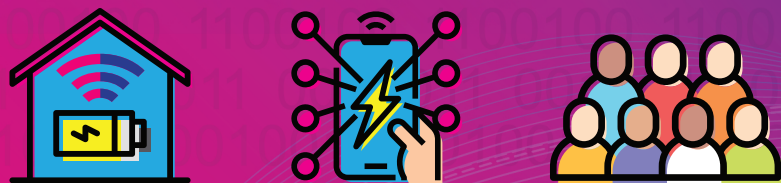
Smart energy management in remote
Northern, Peripheral and Arctic regions



smarctic.interreg-npa.eu

ABOUT

The SMARCTIC project takes a new innovative ‘whole-community’ approach to reducing energy usage within specific geographical areas in the Northern Periphery and Arctic area. Adapted from SMART City models and digital transformation technologies, it involves citizens to help reduce energy usage in remote and rural areas. Utilising a specially developed SMART Energy Management Model (SEMM), SMARCTIC provides an integrated platform that allows citizens, universities, companies, and public authorities to work together in their community to reduce energy usage.



MAIN OBJECTIVES



The SMART Energy Management Model: Provide a technological framework to decrease total energy usage



Test the SEMM’s impact on energy efficiency and renewable solutions awareness in housing & public infrastructure



Create an ecosystem of collaboration among communities to deliver innovative energy solutions

PILOTS

- SMART Grid/Intelligent Battery Storage integrated management
- Intelligent energy management of public indoor environments
- SMART solution for indoor air quality in Arctic/Sub-Arctic buildings
- Crowd-sourced energy management in rural communities
- ICT-based energy management for densely populated communities
- Off-grid photovoltaic and SMART Energy Storage management

The SEMM will support development of six innovative energy pilots that integrate digital transformation technologies to trial new solutions, raise awareness & change energy behaviour.



NPA SMART ENERGY ADVISORY SERVICE

The project facilitates a SMART Energy Advisory Service that provides demonstrations & expertise to support regional stakeholders in implementation of SMART energy solutions. The service will advise on the benefits of the SEMM and SMART technology, and how these can reveal SMART energy management opportunities.

PARTNER REGIONS



PARTNERSHIP

The partnership contains a selection of partners from the public sector, university and business in Finland, Ireland, Sweden, UK and Iceland; with associate partners in Norway and Canada.

This will facilitate new innovative energy services to be piloted as they emerge, while the SEMM provides a common platform to facilitate long-term energy cooperation by communities across the NPA.