

# Upcoming findings from NewSETS to Ålanders

#### Outline



#### What's NewSETS?



#### Status and future



#### **Relevance for Ålanders**



What's coming next?



### What's NewSETS?

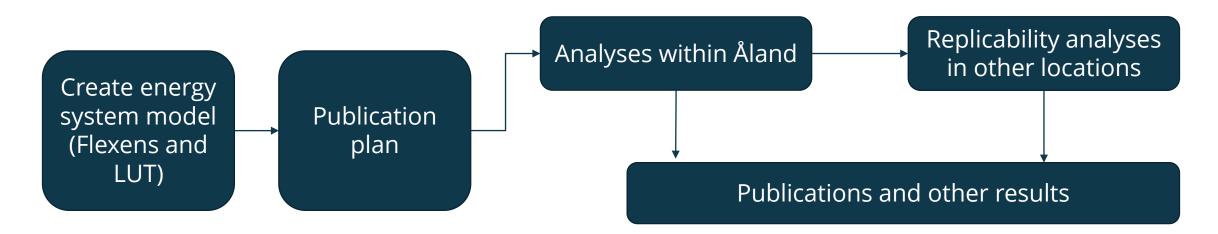
- Public R&D project
- Focus on energy storage
- Most activities around thermal energy storage by Polar Night Energy and underground pumped hydro storage by SENS
- Analyses & basic research by LUT University & Flexens Oy Ab (also PM)
- 06/2021 05/2024
- Main outcomes: a wide range of publications
- <u>https://www.newsets.eu/</u>







#### **Project status and future**

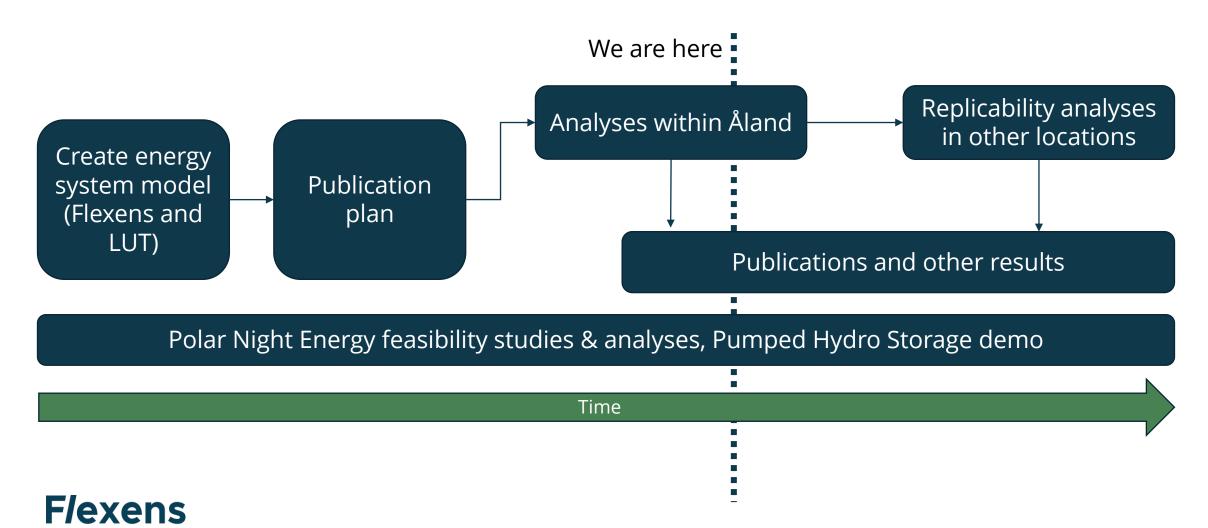


Polar Night Energy feasibility studies & analyses, Pumped Hydro Storage demo

Time



#### **Project status and future**



# **Relevance for Ålanders**

Potential business cases in Åland for storage owners

How the storage types increase the RES share in Åland?

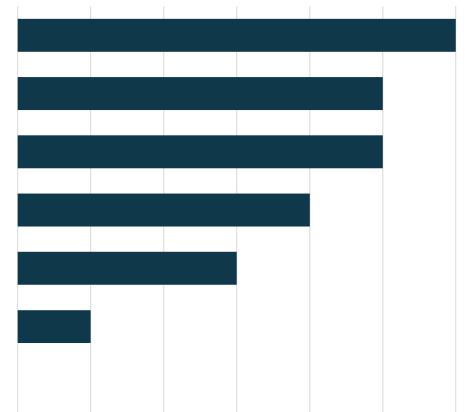
Benefits of the storage types to other energy storage

How the storage types improve Åland self-sufficiency?

Development needs in energy policy & regulation to promote the storage types in Åland

Co-operation potential of the storage types in Åland

Replicability of the storage types after Åland





Potential business cases in Åland

Increase the RES share in Åland?

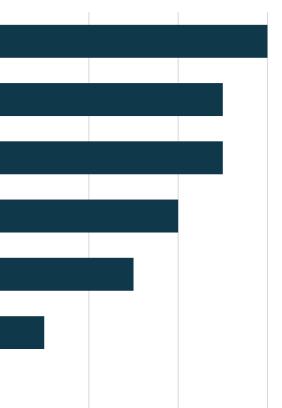
Benefits of the storage types?

Improving Åland self-sufficiency?

Development needs in policy

Co-operation potential

Replicability of the storage types





Potential business cases in Åland

Increase the RES share in Åland?

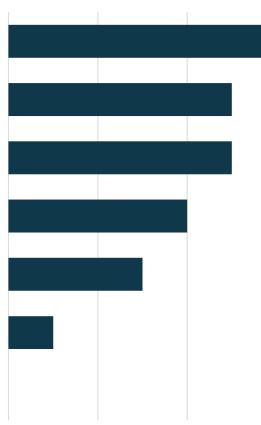
Benefits of the storage types?

Improving Åland self-sufficiency?

Development needs in policy

Co-operation potential

Replicability of the storage types



Combined utilization of the storage types, case Åland

Cost-efficient DH in Åland; promotion of thermal energy storage business cases



Potential business cases in Åland

Increase the RES share in Åland?

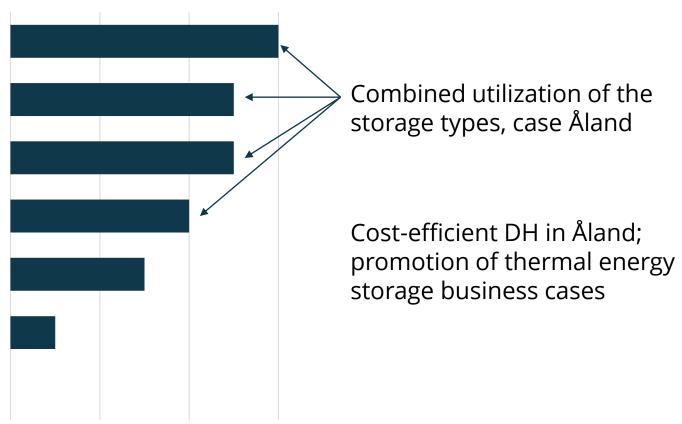
Benefits of the storage types?

Improving Åland self-sufficiency?

Development needs in policy

Co-operation potential

Replicability of the storage types





Potential business cases in Åland

Increase the RES share in Åland?

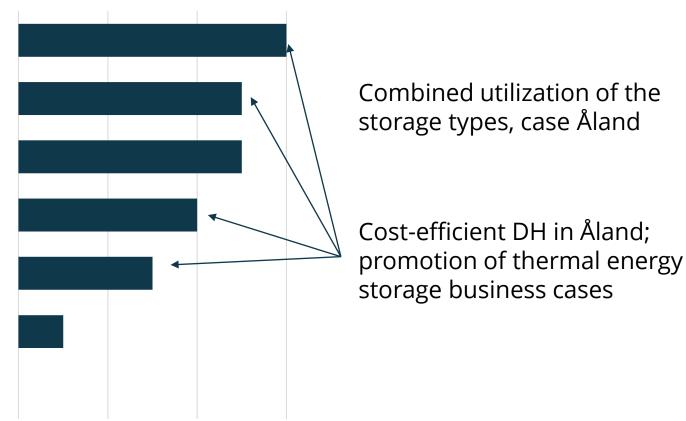
Benefits of the storage types?

Improving Åland self-sufficiency?

Development needs in policy

Co-operation potential

Replicability of the storage types











# newsets.eu

#### Thank you!

Juhani Riikonen Head of System Design juhani.riikonen@flexens.com +358 404 111 547





This project has received funding in the framework of the joint programming initiative ERA-Net Smart Energy Systems' focus initiatives Smart Grids Plus and Integrated, Regional Energy Systems, with support from the European Union's Horizon 2020 research and innovation programme under grant agreements No 646039 and 775970

The content and views expressed in this material are those of the authors and do not necessarily reflect the views or opinion of the ERA-Net SES initiative. Any reference given does not necessarily imply the endorsement by ERA-Net SES.

