

Electric Aviation and the Effects on the Nordic Region

Nordic Energy

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Rebecca Cavicchia, PhD

Senior Research Fellow

Nordregio

Hilma Salonen, PhD

Senior Research Fellow

Nordregio

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Introduction//Project Partners







Introduction//Project's topic

The project explores the possible impacts of electric aviation on Nordic regional development, with a particular focus on critical factors for its implementation and on possible benefits and drawbacks for local communities.





Which routes would benefit the most from EA?

All airports and routes

Nordic

Forum

Green Transport



Beneficial routes



Selected routes





Future scenarios for electric aviation

- > 5 focus groups discussions
- > 4-8 participants
- representatives from regional and local authorities, aviation specialists and experts in the field of energy





Scenario #1 Denmark. Copenhagen-Bornholm

Distance between the airports	141 km
Travel time by electric airplane	approx. 22 min

- > Aim of Bornholm to become a Bright Green Island
- Potential to improve health care accessibility







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Scenario #2 Finland. Oulu-Kuusamo-Kajaani

Distance between the airports	Kajaani-Kuusamo	205 km
	Oulu-Kuusamo	183 km
	Oulu-Kajaani	138 km
Travel time by electric airplane	Kajaani-Kuusamo	41 min
	Oulu-Kuusamo	37 min
	Oulu-Kajaani	28 min

- Potential for more flexible routes between regional centers and remote areas
- > Possibility to improve tourism







Scenario #3 Iceland. Akureyri-Reykjavik

Distance between the airports	250 km
Travel time by electric airplane	approx. 50 min

- Potential for cheaper and more frequent flights
- > Better connections to remote areas
- > Better access to services in the capital region







Scenario #4 Norway. Leknes-Bodø

Distance between the airports	250 km
Travel time by electric airplane	approx. 50 min

- Very high number of flights along the route (average 45 per person/year)
- Significant potential for reducing emissions
- Increase accessibility across geographical obstacles







Scenario #5 Sweden. Skellefteå-Oulu

Distance between the airports	215 km
Travel time by electric airplane	approx. 43 min

- Establishment of a new and lowemission transport route
- Higher accessibility between remote areas
- Attractiveness of an over-water and cross-country route







Main drivers and challenges

- Importance of political committment and necessary national and local regulations
- > Need for high incentives
- Social acceptability of the new technology
- > Uncertanties concerning the ticket price and the affordability of the flights





Conclusive reflections and key learnings

- Routes crossing geographical obstacles and bodies of water appear to be the most competitive during the very early stages of introduction of electric aviation
- Importance of exploring alternative sustainable fuels, such as hydrogen or sustainable aviation fuel (SAF)
- Need for common standards on upgrading airport infrastructure to accommodate electric aviation







Thank you for the attention!

Rebecca Cavicchia, Senior Research Fellow, Nordregio Hilma Salonen, Senior Research Fellow, Nordregio





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