

### erendas

Northern Power, Oulu, 13.2.2025, Vivi Marttila (Simo municipality), Antti Pohjoranta (eTehdas)

#### Simo Karsikko PtX hub

- 52 ha plot reserved with zoning on-going
- Site formerly approved for nuclear power purpose
- Site electrical power capacity up to ca. 1.2 GW via recently opened Simojoki 400 kV power station
  - 450-800 ktpa RFNBO e-methanol
  - ~1 Mtpa CO2 consumed / abated
- Site build-up based on 300 MW steps, with production expected to start in the early 2030's.
- Excellent logistics by road, rail and sea

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 National hydrogen backbone pipeline planned nearby, connecting the site to southern Finland and northern Sweden



## The renewable heat vision

- A large-scale power-to-x facility produces significant renewable low-grade heat as byproduct – ca. 1/3<sup>rd</sup> of consumed power is emitted as heat
  - ~1-10 TWh/a available
- The heat could be utilized to support e.g.
  - Greenhouse farming
  - Drying of lumber
  - A large laundry
  - A spa

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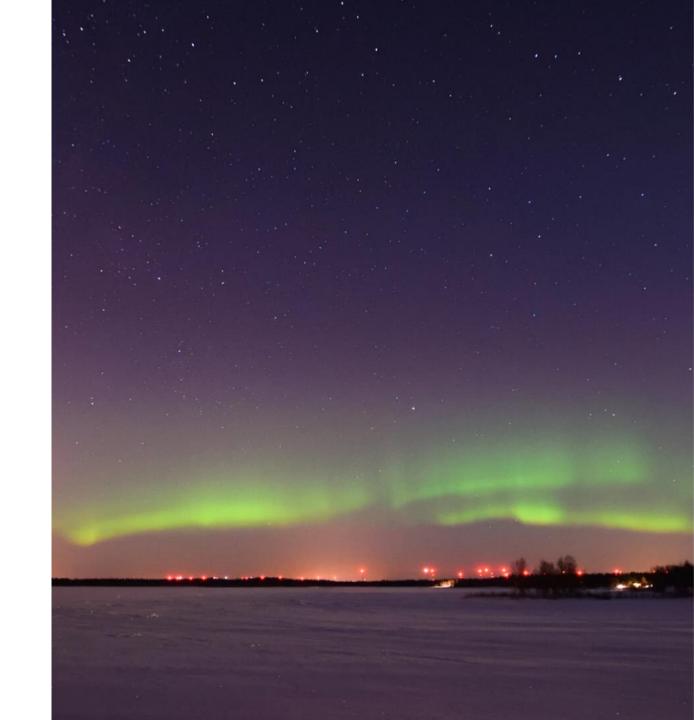
 By fully utilizing the by-product heat from power refining, new local business opportunities can emerge imo Karsikko Suunnittelualuevaraus Greenhouse Spa Saw mill Laundry Karsikko efehdas efenda JULKINEN

# Simo: in the middle of green transition

- Karsikko PtX hydrogen hub with eTehdas
  - About 50 hectars additional land available
- Wind power 280 MW / 64 wind turbines
  - 90 wind turbines in planning phase
  - Ranked 1st in wind power producing cities in 2021, now at 8th place
  - Offshore wind power being planned
- Solar power 70 MW in construction
  - 220 MW being planned
- Electricity battery storages 70 MW
  - 100 MW in construction

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 Simojoki power station and good connections to the main power grid



#### Thank you!

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