

# Green hydrogen investment in Harjavalta

**Herkko Plit**  
**P2X Solutions**

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## Finland's Strengths:

Cheap electricity

Biogenic CO<sub>2</sub>

Stable grid

Clean water

An aerial photograph of a vast, blue lake in Finland, surrounded by dense green forests. The water is calm, reflecting the sky. In the bottom left corner, there is a circular inset showing three wind turbines against a sunset sky with orange and purple hues.

Government: at least  
10% EU green hydrogen  
production in Finland

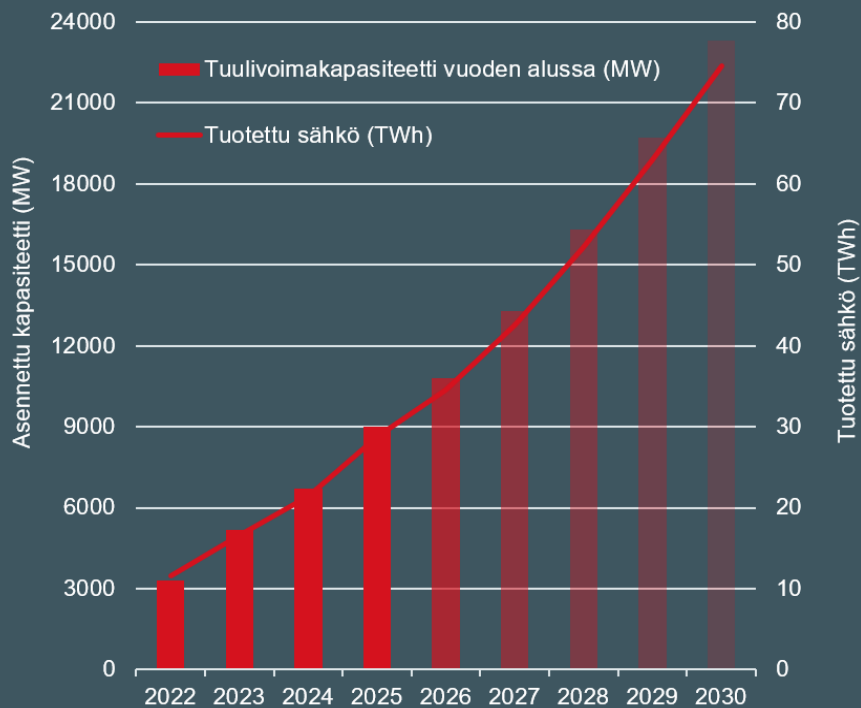


Marriage of wind and hydrogen inevitable

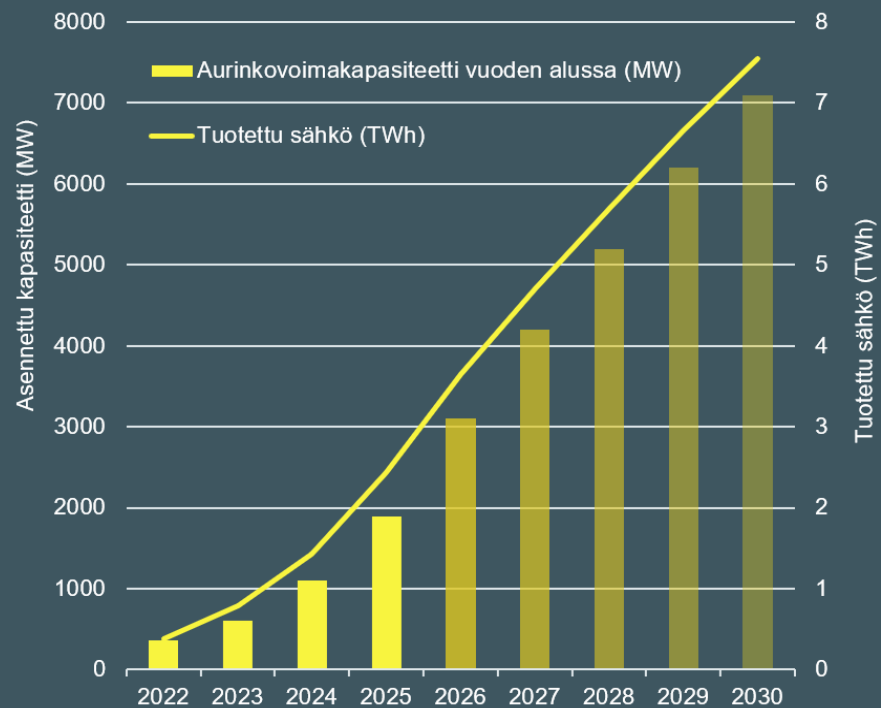


# Uusiutuvan energian kasvuvauhti kiihtyy

## Tuulivoimakapasiteetin kasvuennuste



## Aurinkovoimakapasiteetin kasvuennuste



Fingrid Best estimate skenaario H1/2023

**FINGRID**





# Opportunities tomorrow...

<b>10 000 B€</b> Global green hydrogen market for utilities in 2050	<b>2 000 B€</b> Europe's green hydrogen market for utilities in 2050	<b>630 B€</b> Global annual sales of clean hydrogen in 2050	<b>Up to 24 %</b> Share of green hydrogen from global energy needs by 2050 (~4 % in 2020)
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# Harjavalta green hydrogen production opens up Finnish hydrogen economy



15.2.2024



# Harjavalta green hydrogen production opens up Finnish hydrogen economy



Kuva: Esa Syväkuru / Yle



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Pic: Esa Syväkuru / Yle



# We scale systematically our production up to 1 GW



2022: Harjavalta 20 MW

2024: Harjavalta 20 MW

2026: Joensuu 30-40 MW

2027: TBA

Green hydrogen

Green methane

Green methanol

Green ammonia





It's people's business





# Pioneer view points

- Path of pioneer – opening the track or something else
- Safety and permitting – almost everything new
- Mind set: Forerunner, innovativeness, curiosity, winning challenges, creation of new and foremost the purpose
- How to split and define various project parts including technical and commercial





# Change of system level and society

- Societal view necessary
- System solution vs single company solution
- Creating demand through political decision making
  - Permitting, land zone plan
  - Geopolitical status
  - Market conditions
  - Is the hype over?
- **Politics enable the change, the investments are doing it**
- **Change needs to be done together – each of us has important role on it**







**Herkko Plit**  
**Founder & CEO**  
**P2X Solutions Oy**  
+358 50 462 0788  
herkko.plit@p2x.fi

