



veturi

program
for tackling
climate crisis

Neste Approach to Green Hydrogen

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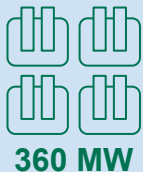
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NESTE

Project SHARC:

Neste develops large-scale green hydrogen supply to Porvoo refinery

Neste's SHARC project is a clean hydrogen project focusing on investing in production capacity of green hydrogen and reducing emissions from hydrogen production at the Porvoo refinery. The project is currently in the feasibility phase and the target is to start the first phase of operations (120 MW) around mid 2020s. Funding from the EU Innovation Fund*.



Green hydrogen

Producing green hydrogen with water electrolysis technology, to be executed in two phases.



Green hydrogen to refining

Transforming hydrogen production at the refinery



Green hydrogen to mobility

Building up the hydrogen economy



Waste heat utilization

Sector integration to district heating



Emission reduction

~4 Mt CO₂

saving in the first 10 years of operation

Increased Innovation:

Green hydrogen to refining

We will demonstrate green hydrogen production **at our Rotterdam refinery** with CEA, Sunfire, Paul Wurth and Engie in an EU project MULTIPLHY. The project aims at the installation and integration of the world's first multi-MW scale high-temperature electrolyser system into a refinery:

2.6 MW
nominal power input

60 kg/h
green hydrogen

16,000
operating hours

This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking under grant agreement No 875123. The Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme, Hydrogen Europe and Hydrogen Europe research.

Leading the way in green transition: Key enablers for renewable hydrogen investments

Electricity ramp-up

Massive investments to renewable power production and transmission capacity

Infrastructure build-up

Power transmission and hydrogen storage & distribution infrastructure development

Electrolysis

Electrolyzer manufacturing capacity is not meeting the demand - accelerated capacity ramp-up needed

New partnerships

Value chain development and cross sectoral integration between industry and utility sector

Regulation

Clear, enabling regulation to drive investments

Funding

Financial support to kick start the hydrogen economy



Thank you

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