

# Why green molecules?

## 1. Success of the energy transition depends on societal acceptance and hence on societal costs

- Transport of molecules is 10-20x cheaper
- Storage of molecules is 1000x cheaper

## 2. Not enough time, it is almost 2050

- Building a power line takes 10-15 years
- Infra for molecules already exists

## 3. Strategic – don't bet on one source

- What if hydrogen becomes cheaper globally?
- What if wind supply structurally diminishes?

# Which green molecules?

## 1. Green biogas from biomass

- Potentially with CCS (negative emissions)

## 2. Green hydrogen

- Surpluses of wind & solar (limited)
- Dedicated wind farms ('far' offshore)
- Imports from e.g. Africa & Middle East (global market)
- From natural gas + CCS (temporary)

## 3. Green biogas and hydrogen may compete (gives flexibility)

- Experts: after 2025/2030, hydrogen will become cheaper than natural gas and oil, + CO<sub>2</sub>