Electrolysis:

* Main cost: electricity
* For an ideal system operating at 100% efficiency, electricity costs must be less then 7.5 cents per kWh to produce hydrogen at lower than $3.00/kg.
* Norsk Hydro: Atmospheric Type No.5040 (5150 Amp DC) has the greatest production rate

Electricity cost in Minnesota: 6.83 cents per kWh (note that we could also utilize renewable energy)

<https://www.electricitylocal.com/states/minnesota/>

DI water cost: $1/1000 kg [5]

[5] Turton, Richard, et al. Analysis, Synthesis, and Design of Chemical Processes. 4th ed., Pearson Education International, 2012.

Norsk Hydro (80% conversion):

Water basis: 485 kg/hr

Hydrogen gas produced: 434 kg/hr

Oxygen gas produced: 347

Operating cost: 53.5 kWh/kg

Capital cost estimate: $1631248 (2,2 MW PLANT (485 Nm3/hr))

<https://www.sintef.no/contentassets/9b9c7b67d0dc4fbf9442143f1c52393c/9-hydrogen-production-in-large-scale-henning-g.-langas-nel-hydrogen.pdf>