QASIGIANNGUIT HYDROPOWER For Aasiaat and Qasigiannguit



Energyproduction	94 GWh
Turbine size	22,5 MW 3 x 7,5 MW
Buidling time Related infrastucture inv.	~2026-2030 ~2025-2030
Population	4.500
Energy from hydropower (inklusive all heating)	85%
Transmission	116 km
Technical challanges	Permafrost



- Cruise ships (approx. 3000 passengers) use 10 times more energy than cargo ships
 - Usually, 5-6 x 9-15 MW (45-90 MW) installed power
 - Short time in harbor (if at all)
 - High installed power, large infrastructure investments, long payback time
 - Environmental issues (exhaust)
 - Grid frequency conversion for ships with running other than 50Hz.
 - Necessity to differentiate ship type, harbor, location
- Efficient Power to X needs big size specially step after H2 (methanol, ammonia)
- Power to X is an expensive use of energy start with "direct use".
- Cold ironing requires special installations on the ships.
- Best efficient energy use would be on harbor installations (pumps, cranes, vehicles)
- Is it possible to use heat of cooling units for heating, drying etc.?

