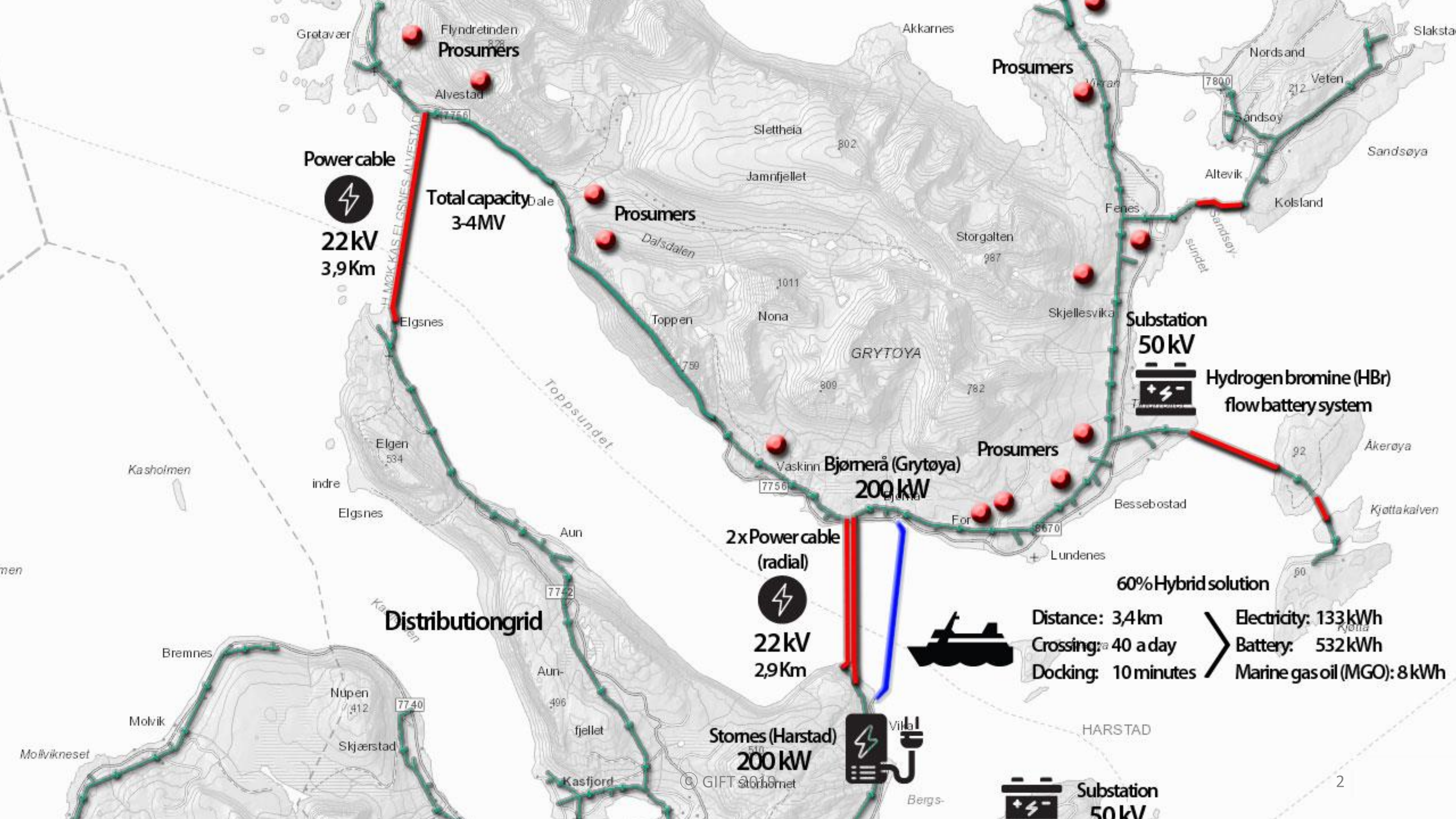
hafenstrom

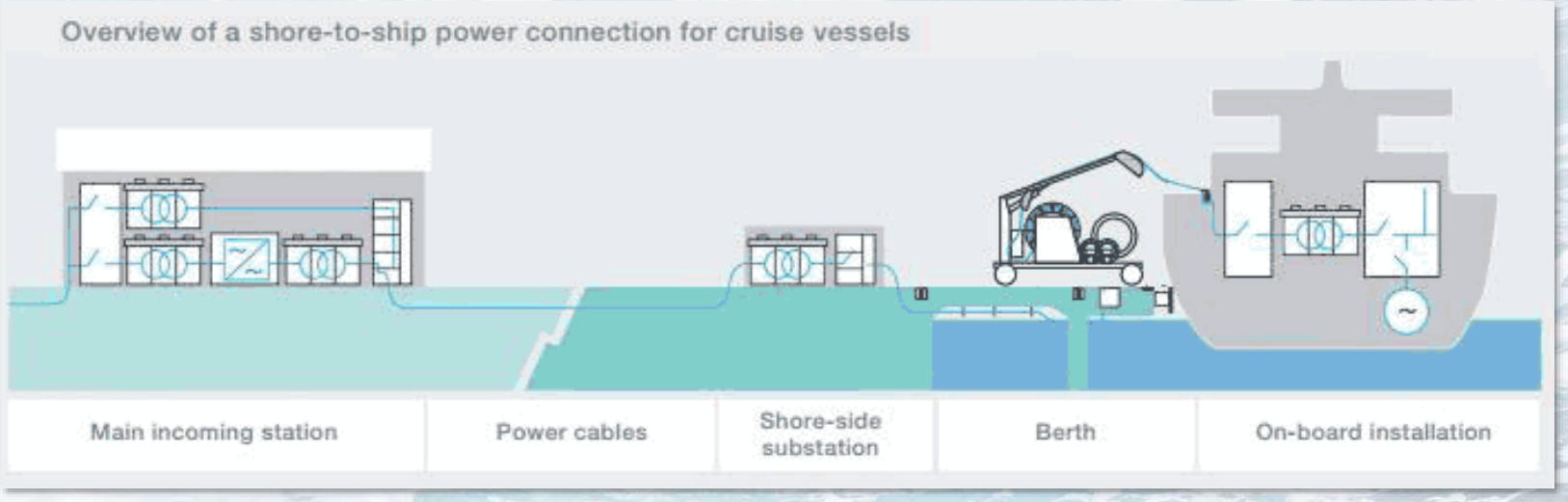
Geographic Island FlexibiliTy

H2020 Grant agreement no 824410


Grøtavær
Flyndretinden
Prosumers
Alvestad
7756
Power cable
22 kV
3,9 Km
Total capacity
3-4 MV
Dale
Prosumers
Dalsdalen
Slettheia
802
Jamnfjellet
Elgsnes
Toppen
Nona
1011
759
809
GRYTØYA
Toppsundet
Elgen
534
Kasholmen
indre
Elgsnes
Aun
7742
Distributiongrid
Bremnes
Nupen
412
7740
Molvik
Skjærstad
Mollvikneset
Aun-
496
fjellet
Kasfjord
Vaskinn
7756
Bjørnerå (Grytøya)
200 kW
2 x Power cable
(radial)
22 kV
2,9 Km
Stornes (Harstad)
200 kW
Storhornet
Vika
Bergs-
Akkarnes
Prosumers
Vikran
Nordsand
Slaksta
7800
Veten
212
Sandsøy
Sandsøya
Altevik
Kolsland
Fenes
Sandsøy-
sundet
Storgalten
987
Skjellesvika
Substation
50 kV
Hydrogen bromine (HBr)
flow battery system
782
Prosumers
92
Åkerøya
Bessebostad
Kjøttakalven
For
8670
Lundenes
60% Hybrid solution
60
Distance: 3,4 km
Crossing: 40 a day
Docking: 10 minutes
Electricity: 133 kWh
Battery: 532 kWh
Marine gas oil (MGO): 8 kWh
HARSTAD
Substation
50 kV

Electric ferry charging methods

- Direct grid charging of the onboard battery during loading/unloading time.
- Using battery-to-battery charging system where a stationary onshore secondary storage battery at the two docking stations are charged.
- Diesel engine supports the onboard battery with recharging the entire time.



GIFT video 1: Properties of electrical ferry
Link: https://youtu.be/TxniXycVMAs

GIFT video 1: Properties of electrical ferry
Link: https://youtu.be/TxniXycVMAs

GIFT video 2: Substation battery and factory EMS
Link: https://youtu.be/qQw7ZEyFRIA

Links of interest

- About Hafenstrom (https://hafenstrom.com/)
- GIFT: https://www.gift-h2020.eu/
- GIFT video 0: Area and concept (https://youtu.be/BuU-SBkfCHY)
- GIFT video 1: Properties of electrical ferry (https://youtu.be/TxniXycVMAs)
- GIFT video 2: Substation battery and factory EMS (https://youtu.be/qQw7ZEyFRIA)
- Some of Hafenstroms other ongoing and upcoming projects
- (https://youtu.be/08QP4fbgGTg)

Get in touch!

www.hafenstrom.com

Asbjørn Hovstø (asbjorn.hovsto@hafenstrom.com)