Enabling renewable baseload generation from flying subsea kites

Minesto

EUSEW Webinar
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Dr Martin Edlund, CEO

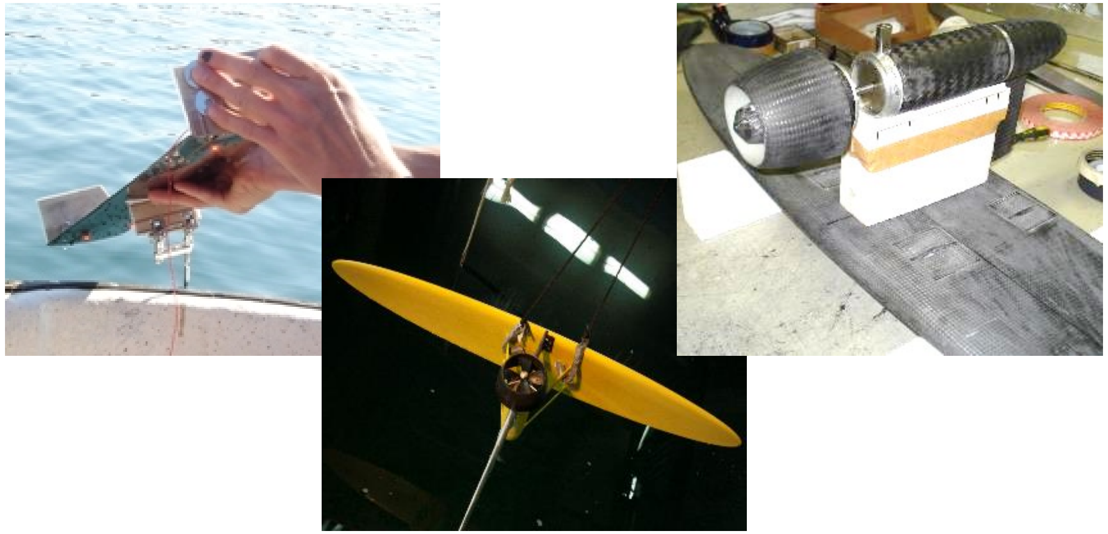
An equipment provider of a game-changing renewable energy technology

Founded 2007 – SAAB Group spinoff

Main owners: BGA Invest and Midroc New Technology

60 employees, operations in Sweden, UK, Taiwan, Faroe Islands

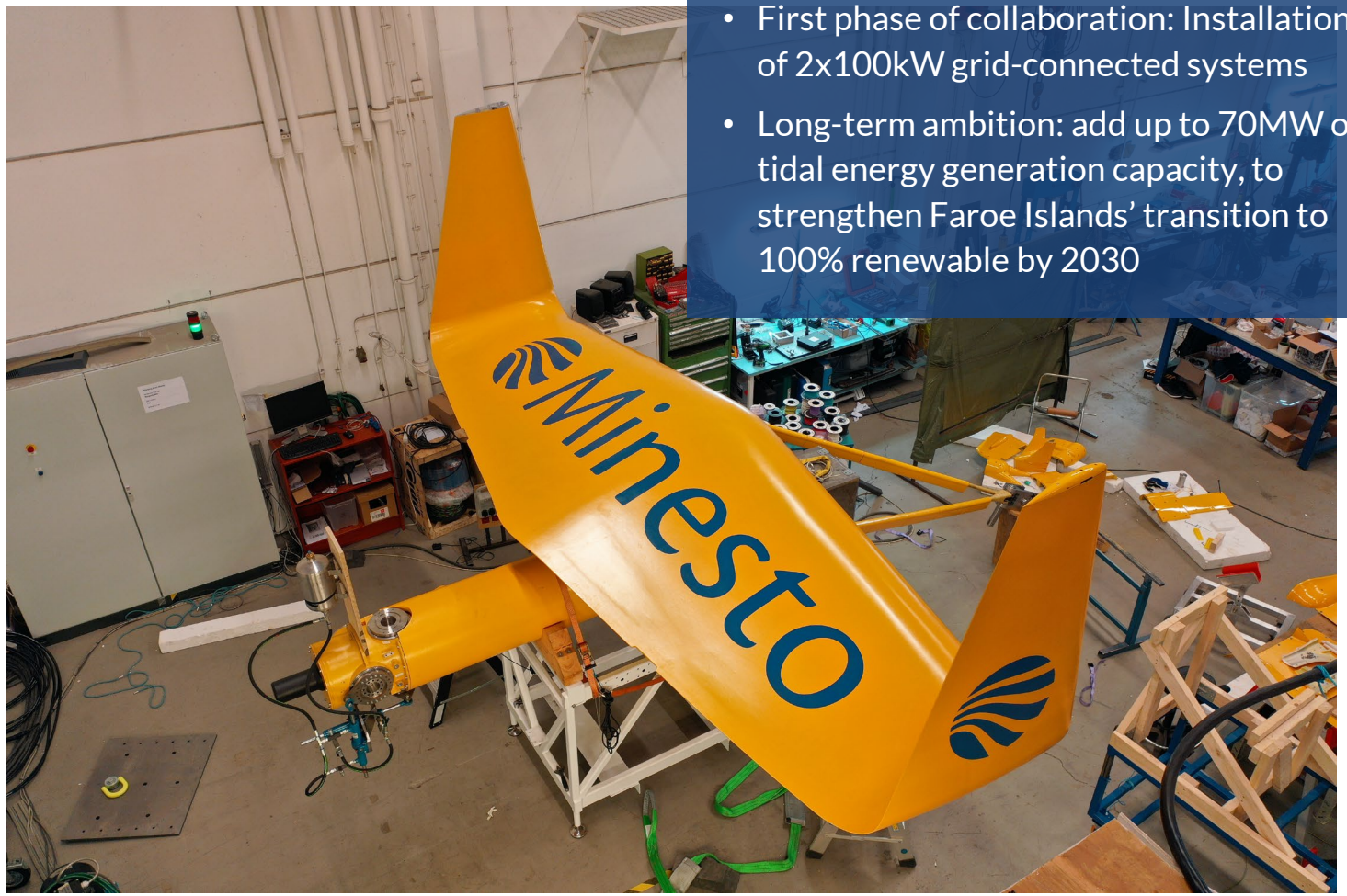
€100m invested in & awarded to the Deep Green technology



2007 2020

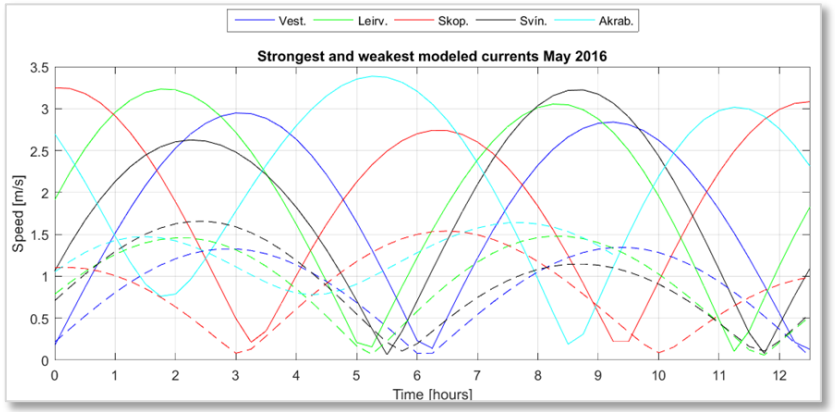
Co-funded by the Horizon 2020 programme of the European Union

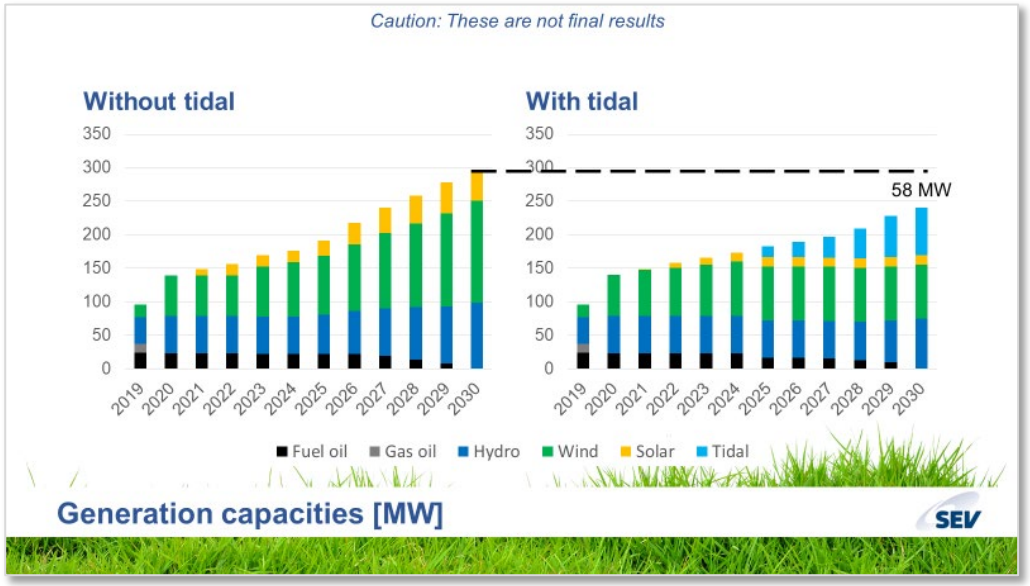
Adding utility-scale tidal energy capacity to the Faroese energy mix

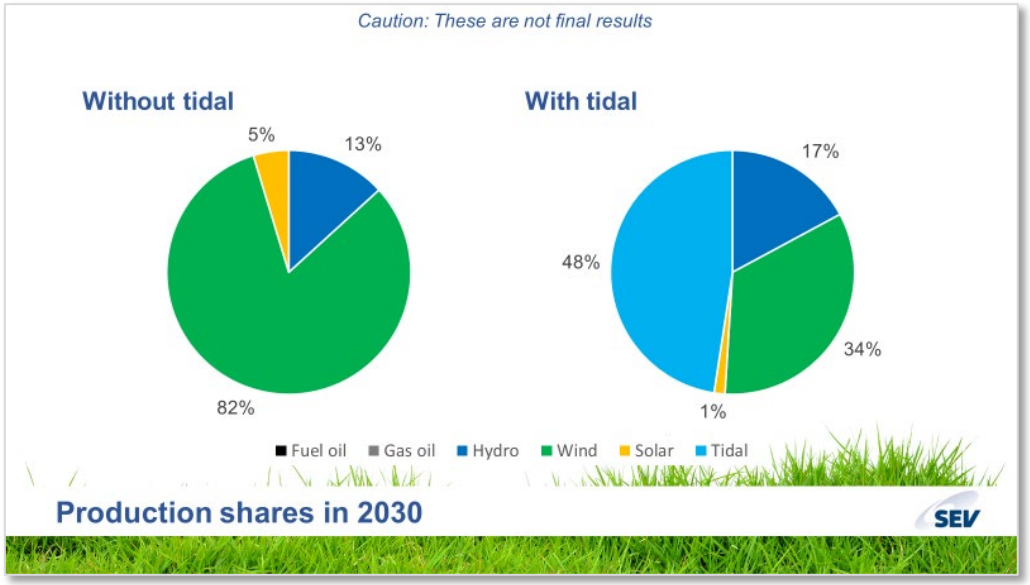


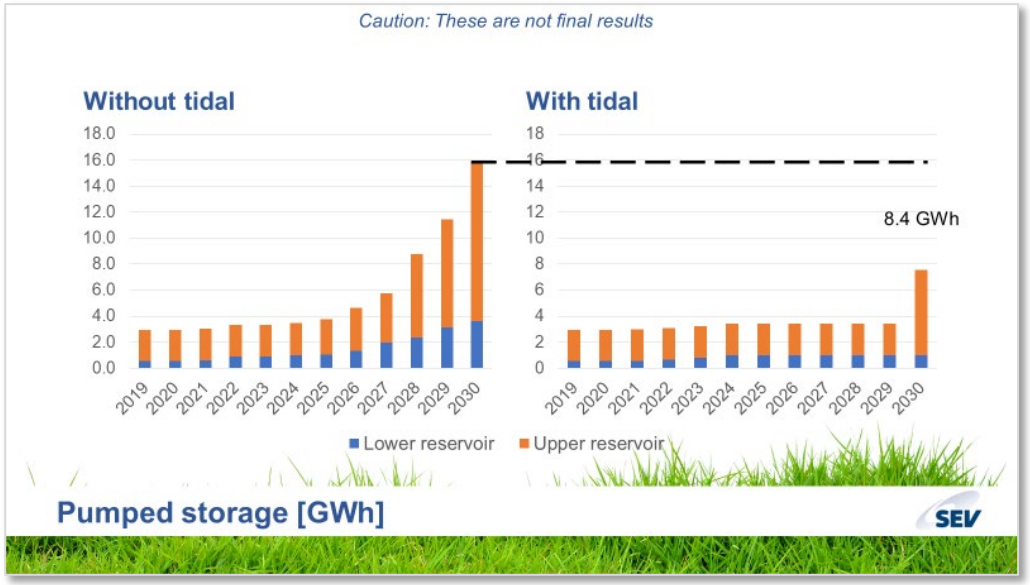
- First phase of collaboration: Installation of 2x100kW grid-connected systems
- Long-term ambition: add up to 70MW of tidal energy generation capacity, to strengthen Faroe Islands' transition to 100% renewable by 2030

Reducing overcapacity and storage needs with predictable tidal energy



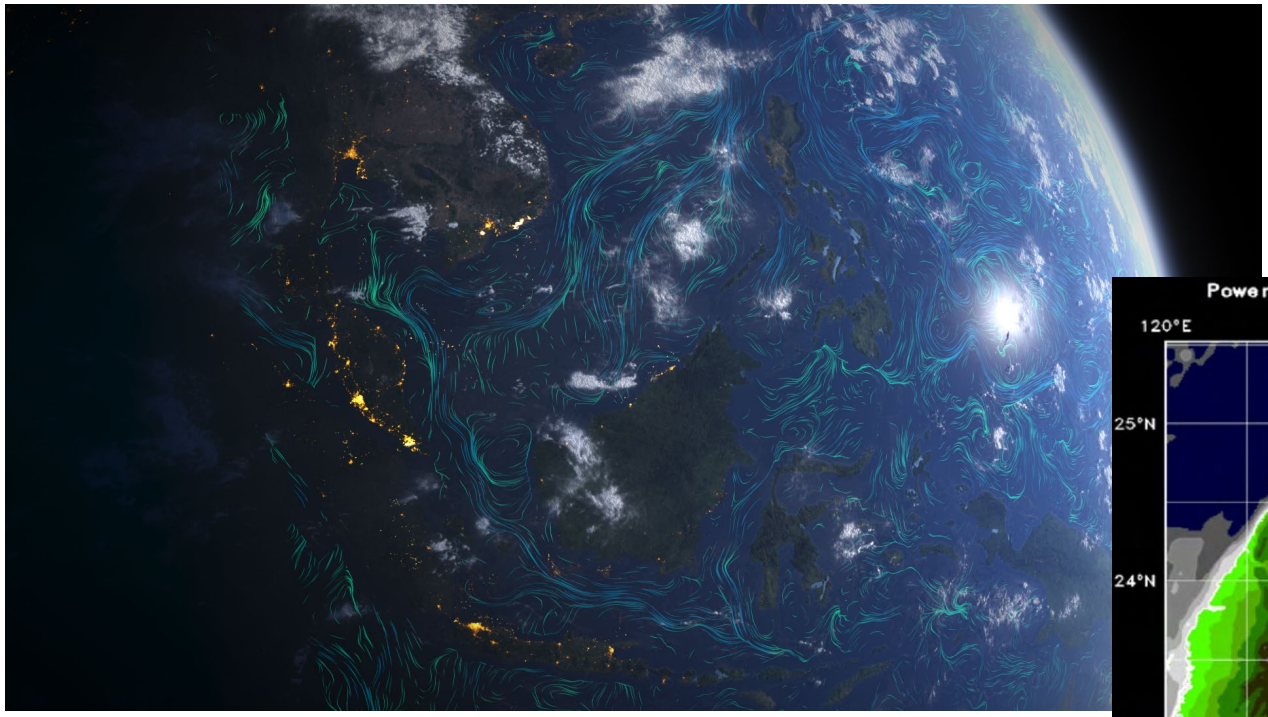


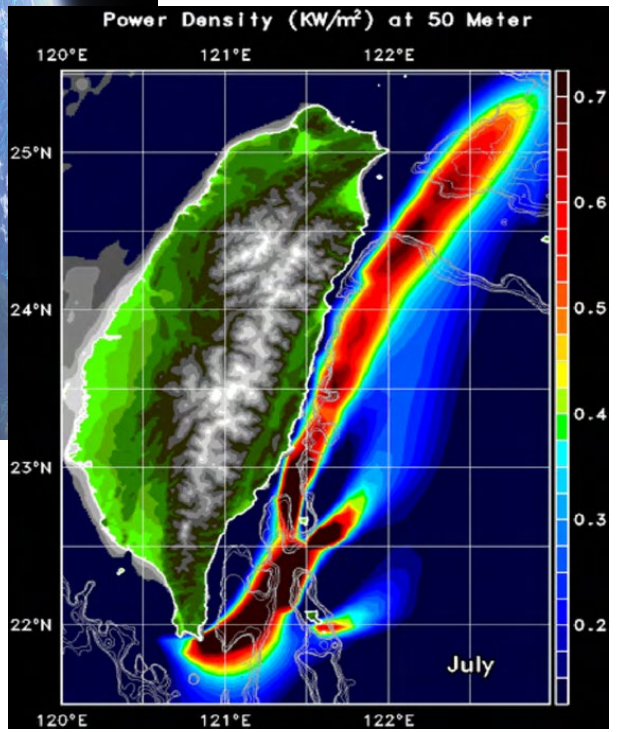




Utilising ocean current energy for renewable baseload generation

- Site development for both tidal stream and ocean current deployment
- Near-term focus:
  - Pilot project installation
  - Local supply chain collaboration
  - Off-grid applications
- Long-term ambition: hub for Asian expansion





Average velocity profile of the Kuroshio ocean current at the average water depth of 50 m.

Source: Chen (2010) Kuroshio power plant development plan.

Low-flow currents: Significant addressable market size

Estimated global expansion potential

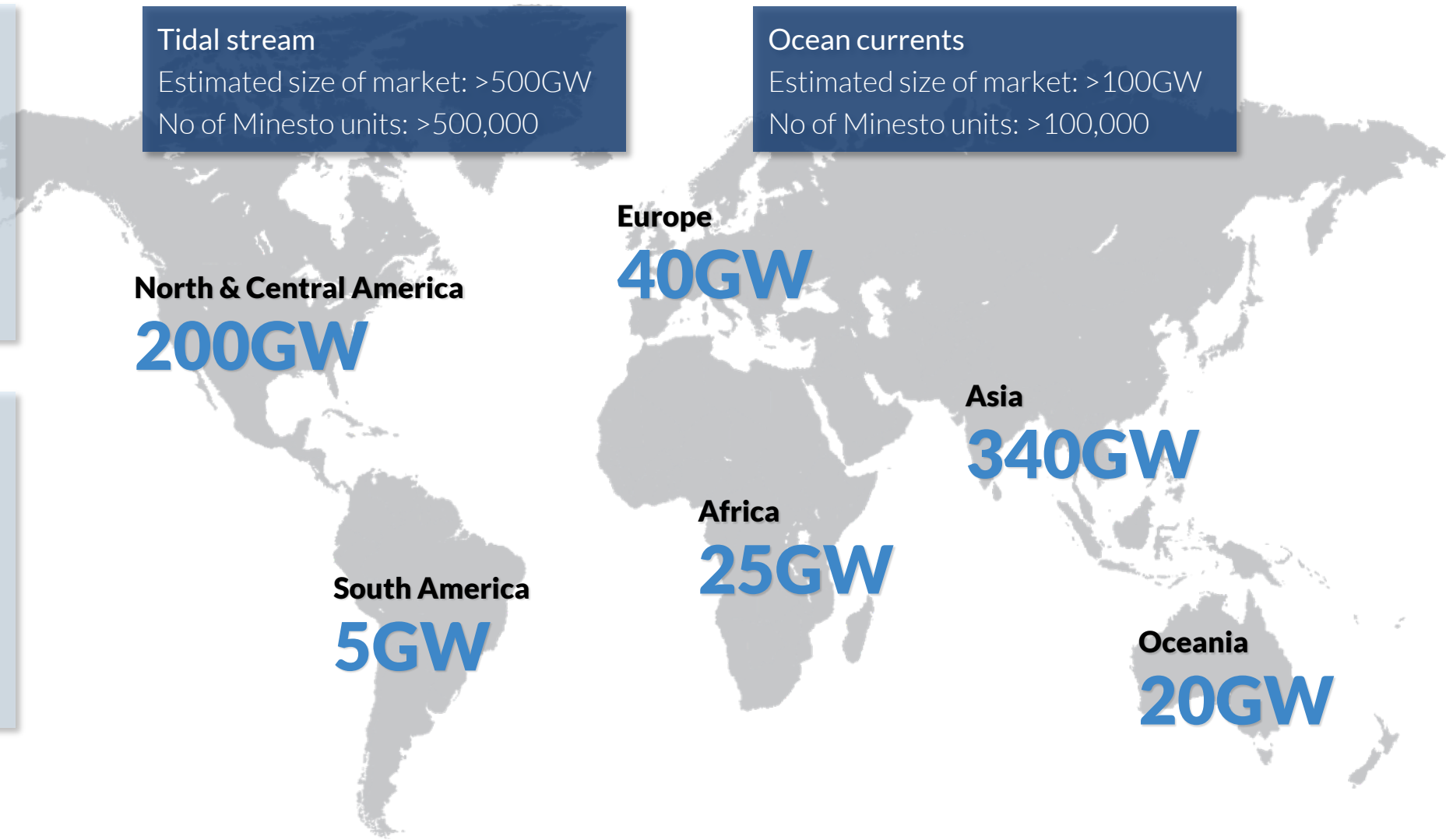
>600GW

Global nuclear power capacity

400GW

Tidal stream
Estimated size of market: >500GW
No of Minesto units: >500,000

Ocean currents
Estimated size of market: >100GW
No of Minesto units: >100,000

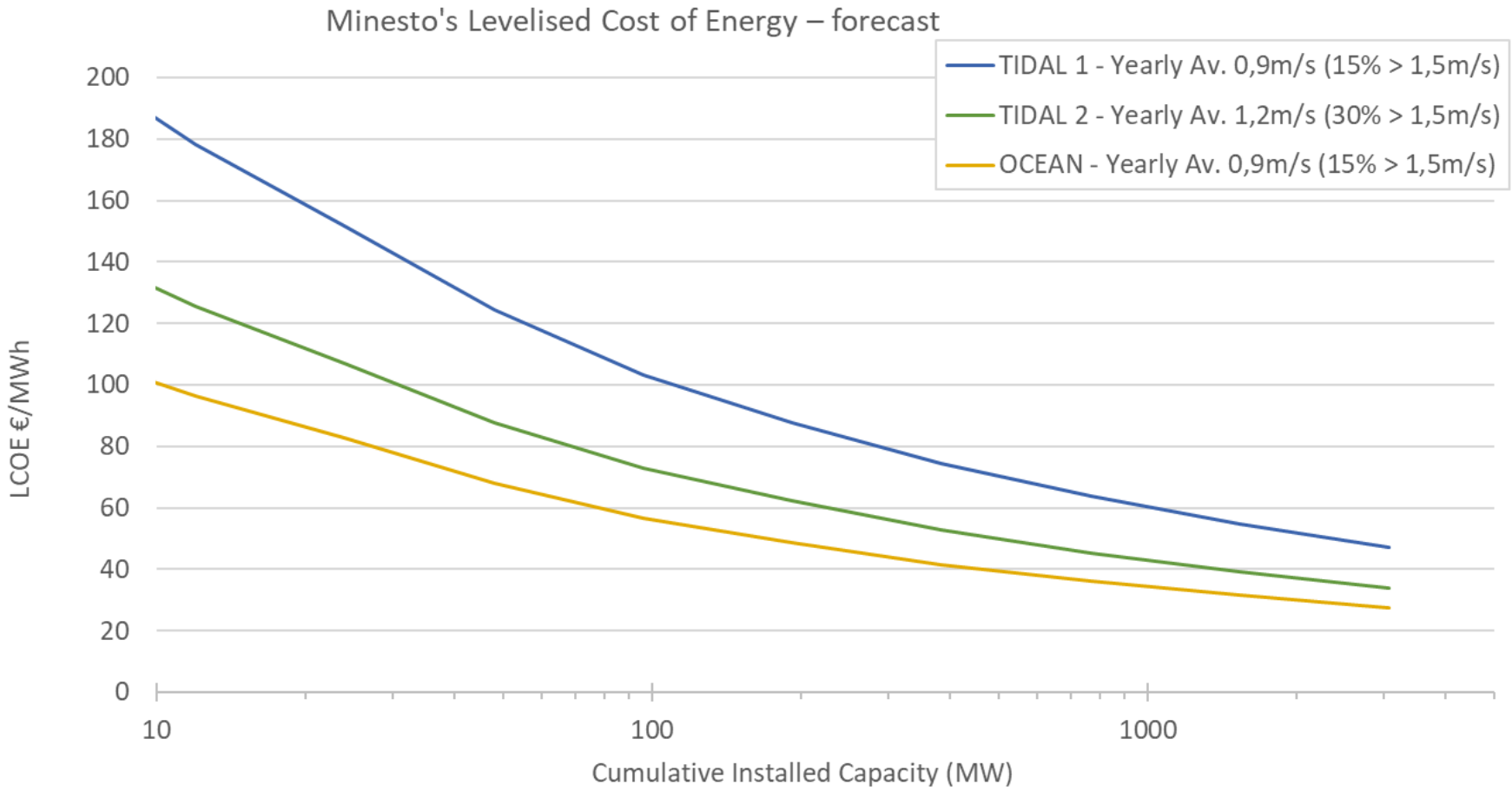


Source: Internal study on available research and industry studies

Affording a sustainable energy transition

Significant cost drivers:

- Weight of system
- Installing and operating at low-flow sites
- Recoverable O&M concept



Thank you!

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