Westcon Power & Automation

WPA sustainable solutions





- More than **30** hybrid/electric projects / More than **30** shore power/charging stations
- More than **15** mooring projects (ferry)
- More than **60 MWh** of maritime batteries
- Delivered the **world's first hybrid ship** with dynamic positioning
- Delivered ess, power and automation systems on Future of the Fjords; **Ship Of The Year 2018**
- Delivered ess, power & automation system for the **world first** floating charging solution
- ESS, Power & automation system to the **world's first liquid hydrogen-electrical ferry (FC)**
- ESS, Power & automation system to the **compressed hydrogen-electrical ferry (FC)**
- ESS, Power & automation system for the **world first fast going zero emission vessel**





Norway's largest car-free ferry, each ferry can accommodate 560 people, transporting 2.7 million people annually.
ZERO EMISSION
Cutting emisstions equal to 20 tonnes of NOx and 6000 tonnes of CO2, which is equivalent to removing about 3000 fossil-fueled cars from the roads.
Source: Norled

Kongen er blitt elektrisk

Kongen er den første av tre Oslo-ferger som Westcon Power & Auttomation nå ombygger til elektrisk drift. Denne uken var Kongen ferdig ombygd, utover høsten kommer også Dronningen og Prinsen.

Disse Oslo-fergene blir elektrifisert av WPA. Foto: Norled.

Helelektrisk overfart på Norges største bilfrie båtsamband

Pressemelding • mai 07, 2020 08:26 CEST

Prinsen er nylig ankommet Oslo etter ombygging til elektrisk drift i Horten.

Oslofjorden blir grønnere når Norges største bilfrie båtsamband mellom Aker brygge og Nesoddtangen er helelektrifisert. Hurtigladeteknologien som benyttes er den første av sitt slag i Norge.

På under ett år er de tre fartøyene Kongen, Dronningen og Prinsen blitt ombygd fra drift på flytende naturgass til strøm, slik at alle avganger nå vil være utslippsfrie. Strømmen kommer fra et nytt elektrisk ladeanlegg med strømkapasitet tilsvarende en middels stor norsk kommune.

– Norled har vært en pådriver i bruk av grønn teknologi i dette prosjektet. Vår oeratør av Nesoddsambandet har sammen med flere gode samarbeidspartnere bevist at det fins både vilje og kompetanse til å lykkes med å skape innovative og miljøvennlige løsninger. Passasjerene får en enda mer stillegående, utslippsfri og behagelig reise over fjorden med kun elektriske båter, sier Bernt Reitan Jenssen, administrerende direktør i Ruter.

About Nesodden ferries

- Ferries Operated by Norled for Ruter

- The Nesodden ferry route is operated by the three boats: The King, the Prince and the Princess and sails between Aker Brygge and Nesodden
- All of the three vessels is retrofitted and electrified by Westcon Power & Automation AS

Retrofit

- The three vessels King, Queen and Prince have been rebuilt from operating on LNG to electricity
- The work was done in less than a year
- The power to charge the ferries comes from a new electric charging system with power capacity corresponding to a medium sized Norwegian municipality
- The retrofit job was done at Horten Skipsreparasjoner AS

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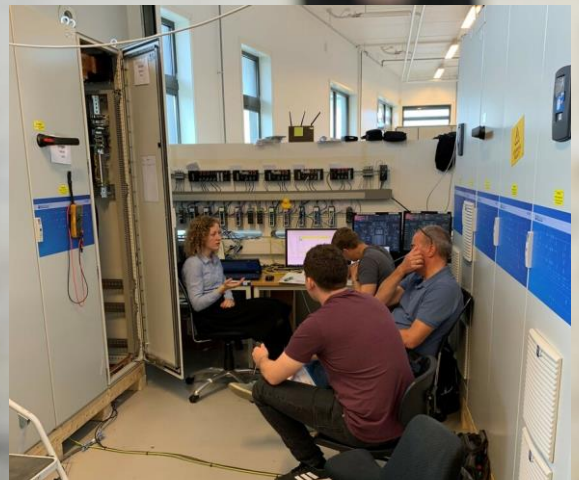
Source: Erlend Angelo

Source: Horten Skipsreparasjoner



Production and FAT test

Source: Westcon

Source: Tore Stenvold

ESS, Power and Automation

- Westcon Power & Automation is the system supplier and integrator for the battery-operated ferries
- The boats are plug-in hybrids, with biodiesel option as a backup solution.
- Battery package, 2x1017kWh, battery manufacturer is Corvus

eSEAMatic® BLUE

Power supply

- Sporveien has built a new and “invisible” traffic station into a protected shed on the quay, which can supply power to all Ruter boat transport
- The traffic station at Aker Brygge has been prepared for a total of 8 MVA, distributed over two network stations.

Charging

- The charging system for the The Nesodden ferries are with 2x1900 KW from Cavotec
- Cavotec have developed a new Automatic Plug-in System (APS) for the Nessoden ferries
- The system charges the ferries for approx. eight minutes between each departure.

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MF Kongen/Dronningen/Prinsen

C9180078-871-02-BTD-001 e-SEA Drive - Power Topology

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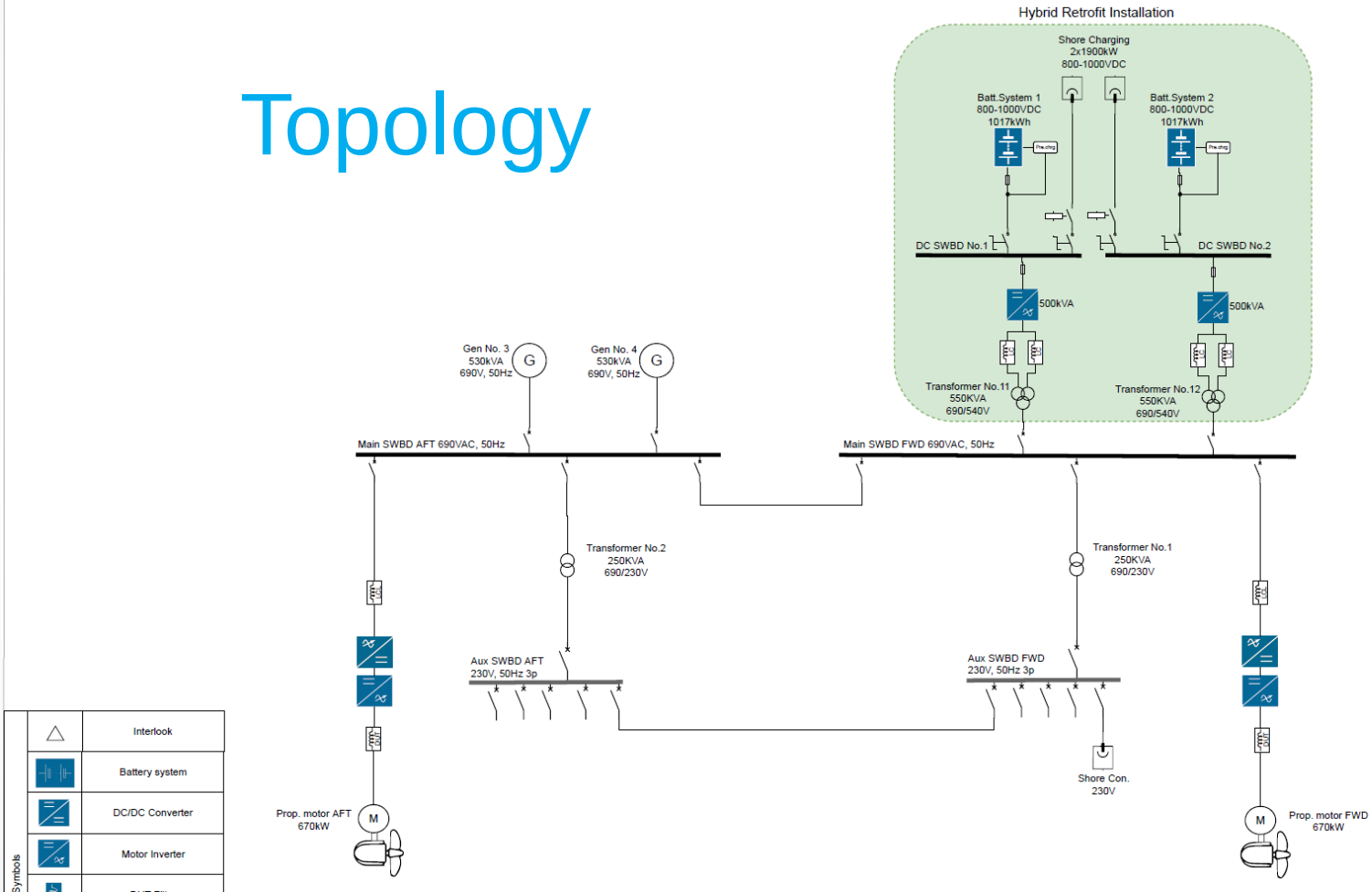
Topology




Thank you for your attention!