

Input paper for the following Committee(s): check as appropriate

- ☐ ARM ☒ ENG ☐ PAP
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Purpose of paper:

- ☐ Input
☒ Information

Agenda item ²

Technical Domain / Task Number ²

Author(s) / Submitter(s) Jonas Lindberg

Developments in Battery Technology

1 LIHTIUM-ION BATTERIES USED IN ATON PROJECTS

1.1 Norwegian Costal Administration, Dirigens Lux

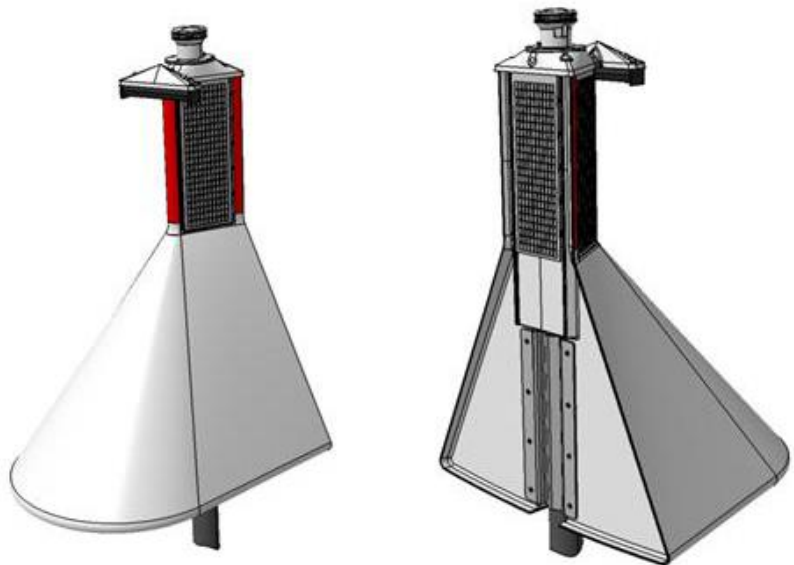
Kystverket (Norwegian Costal Administration) has introduced Lithium-ion battery technology in their new Dirigens Lux and Dirigens Mini AtoNs.

The AtoNs are navigation markers which includes both a lantern and indirect lighting. They are used in narrow and sheltered fairways. The navigation markers are equipped with solar panels and lithium batteries. The products are used for close-up navigation. The markers are self-sufficient with electricity from solar panels and batteries.

-Custom made Lithium-ion batteries, capacity 420 Ah @12V

-Service life, up to 20 years

For more information, please contact the Norwegian Costal Administration.



¹ Input document number, to be assigned by the Committee Secretary

² Leave open if uncertain

1.2 Finnish Transport Agency, lithium battery trial project

The Finnish Transport agency has an ongoing trial where off-the-shelf Lithium-ion batteries are used. The aim of the project is to investigate the benefit of using service-free Lithium-ion batteries in fixed AtoNs along the Finnish coastal.

The technology used is LiFePO₄ and the capacity range is between 32Ah and 160Ah @12V.

For more information, please contact the Finnish Transport Agency and/or <http://www.super-b.com>.



2 TESLA MOVES INTO ENERGY STORAGE BUSINESS

The car manufacturer company Tesla has introduced a Lithium-ion battery system, PAWERWALL, which has a capacity of up to 10kWh per module.

The end-user price per unit is announced to be as low as 3500 \$ per module which is only 350 \$/kWh or about 4 \$/Ah converted to a 12V equivalent battery pack!

Other specs includes:

Warranty	10 years
Efficiency	92% round-trip DC efficiency
Power	2.0 kW continuous, 3.3 kW peak
Operating Temperature	-20°C to 43°C
Enclosure	Rated for indoor and outdoor installation.
Weight	100 kg
Dimensions	1300 mm x 860 mm x 180 mm

For more information please visit <http://www.teslamotors.com/powerwall>



3 ACTION REQUESTED OF THE COMMITTEE

The Committee is requested to note the report.