



**Via TEAMS – 13.00 to 17.00 (UK)**

14.00 to 18.00 (EU)

08.00 to 12.00 (US EST)

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**NEXT GEN Battery Safety Workshop: Standard Rate £120**

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Discount Rate £95

**For further information:**

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**[www.nextgen-marine.com](http://www.nextgen-marine.com)**

## THEME: How Can We Make Next Generation Battery Energy Safer?

### 13:00 to 14:20 Session 1: Battery Safety Standards and Lessons from Other Sectors

**John Haynes – Workshop Lead, NEXT GEN Marine**

What are the Emerging Battery-Electric Risks at Sea – Real Versus Perceived

**Dr John Warner – Chairman, NAATBatt / Author, Handbook of Lithium-ion Batteries**

How Battery Safety is Evolving – Knowledge Transfer from Other Transport Sectors

**Albert Willemsen – Safety & Sustainability Lead / International Marine Industry Advisor**

Managing Risks of Battery-Electric Systems and Devices - in Vessels, Ports, Shipyards

**Alasdair Reay – Managing Director, HPI Verification Services**

The Challenges of Certifying Battery-Electric Systems in Existing Designs

#### Panel Discussion - Q & A Session

How can evolving battery technology overcome the innovation regulation paradox?

What are the benefits of a single supply battery-electric system versus multiple part suppliers?

### 14:20 to 14:30 Break

### 14:30 to 15:30 Session 2: Technology to Make Battery-Electric Safer on Vessels

**Mark Penny – Commercial Director, Energy Solutions**

What can the Marine Industry learn from Battery Safety in Real World Applications?

**Jon Plackett – Sales & Brand Manager, Paleblue**

A Safer Approach to Small Batteries – Onboard and Onshore

**James Cunningham – Technical Director, LiVault**

Battery Containment Systems for Onboard Charging and Storage of Lithium-ion Batteries

#### Q & A Session

### 15:30 to 15:40 Break

### 15:40 to 17:00 Session 3: Preventing Thermal Runaway - Managing Fire and Gas Risks

**Peter Mansi – Partner & Forensic Investigator, Fire Investigations UK**

Identifying the Origin, Cause and Development of Battery and Electrical Fires on Vessels

**Paul Christensen – Director, Lithium Safety / Prof Emeritus, Newcastle University**

Lithium-ion Battery Fires and Explosions – What We Now Know

**Jon Curley – Operational Manager, Dorset & Wiltshire Fire & Rescue**

How First Responders Manage Battery Thermal Runaway On Vessels and In Ports

#### Q&A Session

Do vessels need to be designed 'Lithium-ion ready' or can we retrofit current vessels?

What is working now and what do we require urgently?

END: 17:00 (UK)

Please Note: Programme and presenters may be subject to change.



John Haynes



Dr John Warner



Albert Willemsen



Mark Penny



Jon Plackett



James Cunningham



Alasdair Reay



Peter Mansi



Paul Christensen



Jon Curley

## NEXT GEN Workshop Lead – John Haynes

From running Energy Transition training for significant maritime organisations, it is clear there is an urgent need to have a better understanding of safety for onboard and onshore energy storage systems.

The initial focus for Lithium-ion batteries has been on increasing energy density and reducing cost.

It is now essential to establish a consistent approach to identify safe battery-electric systems.

'Safety' for battery-electric vessels is not only about batteries. A systems approach considers charging, awareness of the risk of running out of energy at sea - along with the ability to prevent and fight fire.

### New Challenges Include:

- Power and propulsion batteries / Onboard energy storage
- Hotel load batteries / Command and control systems
- Charging small devices, laptops and crew phones
- Battery tools onboard at sea and during refit
- Battery operated Drones / eSubs / eBikes
- PPE for fire / explosion / toxic gas
- Battery-electric unknowns

## NEXT GEN Supporters



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