

ETN MONTHLY NEWS SUMMARY

MAY 2021

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NEW MEMBER

We warmly welcome [OPRA Turbines](#) who joined our network!

GT ENCLOSURE STANDARD FOR HYDROGEN FUEL CASE

During ETN's [Workshop](#) in March, the participants of Technical Committee 4 session highlighted the absence of standard addressing enclosure safety challenges for gas turbines running on hydrogen fuel mixtures. A standard on enclosure safety challenges would be helpful to OEMs for new builds and to end-users looking to transition to hydrogen blended fuel or pure hydrogen.

ETN organised a follow-up call on this topic in May to verify the interest among our members and to check if the timing for such an action would be right. The interest was verified by the high number of participants, who confirmed their organisations' interest in the topic. It was also agreed that the timing was right, as it would be important to address this safety topic in time for early demonstrations. It was decided to arrange a launch meeting of such a taskforce under our Hydrogen Working Group this September. A smaller group of participants volunteered to attend a preparation call on 25 June to set the agenda for the launch meeting. The date of the September meeting will be communicated to ETN members in the next edition of our Monthly News Summary.

WEBINAR: “FROM WASTE TO GRID: RE-USING RESOURCES TO ACHIEVE ENERGY INDEPENDENCE ON ISLANDS”

ETN will organise the webinar “*From waste to grid: re-using resources to achieve energy independence on islands*” on 3 June 2021, as part of the EU Green Week activities. During the webinar, representatives from EU-funded ROBINSON and IANOS projects will illustrate how these projects will help islands to re-use their waste and unused resources to improve islands' carbon footprint and energy security. The webinar will focus on how new technologies will allow the conversion of waste resources into green natural gas and biomethane, as well as on how

innovative gas turbines can leverage those decarbonised gasses, supporting the decarbonisation of the whole energy system.

Registration for this webinar is [still open](#) – sign up now!

SUPERCritical CO₂ WORKING GROUP

ETN's Supercritical CO₂ Working Group will hold a meeting on 21 June 2021. Representatives of SOLARSCO2OL project will present their preliminary turbomachinery design results, followed by a short update from Baker Hughes introducing the highlights of their design and testing results regarding the compressor developed in their sCO₂-flex project. Not part of ETN's sCO₂ Working Group but would like to attend the meeting? Please [contact us](#) for more details.

"IS HYDROGEN THE ANSWER TO LOW-EMISSION TURBOMACHINERY?" – WEBCAST BY TURBOMACHINERY INTERNATIONAL & ETN

ETN will partner with Turbomachinery International to organise a webcast "*Is Hydrogen the Answer to Low-Emission Turbomachinery?*", to be held on 29 June 2021.

The webcast offers an overview of the various elements of the hydrogen economy, the different types of hydrogen, where turbomachinery fits into the hydrogen economy, the challenges involved, and the economics of hydrogen. It addresses questions such as:

- How likely is a truly hydrogen-based economy? How long will it be before it takes shape?
- How is it possible to achieve CO₂ neutral flexible dispatchable power in the energy transition and what is its implementation path?
- What will be the role of hydrogen gas turbines from a user perspective?
- What kind of hydrogen partnership opportunities exist for gas turbine retrofits?
- What is needed to provide complete upgrade packages to support the value chain of hydrogen implementation within existing gas turbine power plants?

Speakers will include Geert Laagland, Director of Engineering at Vattenfall / Co-Chair of ETN's Hydrogen Working Group; Peter Stuttaford, CEO, Ansaldo Thomassen; and Pierre Dechamps, Ambassador at EU Climate Pact / Senior Advisor at FTI Consulting.

You can register for this webcast by clicking [here](#).

ADDITIVE MANUFACTURING L-PBF MACHINE EVALUATION INITIATIVE

ETN's unique L-PBF Machine Evaluation Initiative was developed among members of ETN's Additive Manufacturing Working Group. The project will review capabilities of Laser-Powder Bed Fusion (aka L-PBF, Selective Laser Melting) equipment currently available on the market.

The involved manufacturers will be manufacturing parts with Nickel Alloy 718 powder, according to specifications defined in collaboration with members of the ETN Additive Manufacturing Working Group. The parts to be produced include features of specific interest to the energy sector, such as thin walls and cooling channels. Performance, quality and productivity are key elements that will be evaluated.

The outcome of the project will consist of a detailed report, evaluating and comparing technical and commercial characteristics of selected AM machines available on the market and sample

parts they produced. The full report will be available only for the partners. More details are available on [our website](#).

Interested to become a partner? Please contact [Valentin Moens](#) for more information.

ASME TURBO EXPO

[ASME Turbo Expo](#) virtual conference will be held on 7-11 June 2021. ETN's Managing Director Christer Björkqvist will moderate the plenary session "*Opening up the Design Space to Afford Efficient Gas Turbines Using H₂ and Biofuels*", to be held on 8 June. Christer Björkqvist will be also co-chairing the panel sessions "*Voice of Customers*" (8 June) and OEM session "*Pathway Forward for Gas Turbines*" (10 June). ETN will be present also at the virtual exhibition.

ETN members are entitled to a discounted registration fee for ASME Turbo Expo with the discount code "*TE210DISC50*". For any questions, please [contact us](#).

UPCOMING MEETINGS AND EVENTS:

Virtual ETN meetings and events:

- ["From waste to grid: re-using resources to achieve energy independence on islands"](#): 3 June 2021
- [LM2500 User Group Meeting](#): 15-17 June 2021
- Supercritical CO₂ Working Group meeting: 21 June 2021
- ETN Board meeting: 23 June 2021
- GT enclosure standard for hydrogen fuel case – preparation meeting: 25 June 2021
- ["Is Hydrogen the Answer to Low-Emission Turbomachinery?"](#): 29 June 2021
- High-Level User Meeting: 4 October 2021
- [10th International Gas Turbine Conference](#): 11-15 October 2021

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ETN Monthly News Summary is distributed internally to ETN members at the end of each month. ETN Quarterly Newsletter is circulated to members and external contacts four times a year. The next edition will be July-September 2021. You can find all the previous issues of both publications on www.etn.global/news-events