

ETN is a non-profit association bringing together the entire value chain of the gas turbine technology community globally. Through cooperative efforts and by initiating common activities and projects, ETN optimises turbomachinery research and technology development and promotes the operation of environmentally sound gas turbine technology with high reliability and low cost.

## In this issue

### THE QUARTERLY FOCUS:

Update on ETN's activities and events – COVID-19;  
Virtual AGM & Workshop Week;  
New support platform launched 2

### INSIDE THE NETWORK:

New member;  
ETN standard on gas turbine exhaust systems successfully published as an ISO standard;  
Young Engineers Committee 3

### ETN AT WORK:

ETN's engine-specific User Groups 4  
Educational courses;  
IGTC 2020 5

### THE GT INDUSTRY:

Interview with Alessandra Cuneo, FLEXnCONFU project coordinator 6-7

### ENERGY POLICIES:

European Commission proposes a new climate law; 8  
European Technology and Innovation Platform on Renewable Heating and Cooling;  
IEA: global CO<sub>2</sub> emissions stopped growing in 2019;  
Impacts of COVID-19 9

### THE LIFE OF THE GT COMMUNITY:

Upcoming meetings and events 10



**Christer Björkqvist**  
Managing Director

### Strategic networking to ensure a V-shaped recovery from COVID-19

*In a shockingly short amount of time, COVID-19 has pushed us into a global health and economic crisis. We're operating in uncharted waters and critical information on the characteristics of COVID-19 and its impacts on global business activity are difficult to assess and can change overnight.*

*As we move forward, our sector faces many challenges: managing the issues of the health and safety, coping with disrupted demand, supply chain disruption, the need to strengthen revenue and manage debt obligations; and simultaneously ensure development of competitive energy solutions for a long-term future.*

*While this may seem like a daunting challenge right now, we will come out of this crisis and when we do we have to be cost-competitive and ready to enable a V-shaped recovery. To ensure this we need to be proactive and take networking to a new level to gather relevant information, to generate innovative ideas and to expand our influence. Strategic networking will be crucial to ensure that right decisions are made.*

*We, as a business community, can emerge from this crisis much faster if we work together. In times of crises like this one, increased networking and focused cooperation will be the most cost-efficient ways to quickly come out of this crisis and emerge in a better shape.*

*I am pleased that our Hydrogen Gas Turbines Report that provides important information and guidance on the path towards a zero-carbon gas turbine has been well-received and widely spread during the last months on social media. I am also very pleased that a new demonstration project, FLEXnCONFU, has started in April, with a key objective to increase the flexibility of a combined cycle power plant through power-to-X solutions, including the demonstration of a power-to-hydrogen system in a real operational environment.*

*Another success story and excellent example of what can be achieved through focused and structured cooperation is the ETN produced standard on gas turbine exhaust systems which has successfully been published as an ISO standard. Within ETN we have many Working Groups that I invite you to engage in and actively contribute to new success stories. To ensure continued progress and positive outcomes within our Working Groups and User Groups we intend to hold a number of web calls and virtual meetings. We have recently also launched a live blog on our website where you can pose any kind of questions, and highlight needs and issues where you would need help and support.*

*In all this uncertainty, I want to reassure you that one thing remains unchanged — ETN's total commitment to help our Members through this crisis by encouraging and facilitating information exchange and cooperation to enable cost-efficient operations and to accelerate research, development, and demonstration of safe, secure and affordable carbon-neutral turbomachinery-based energy solutions.*

*A network lives and thrives only when it is used — get involved and you will experience the difference.*

*Stay safe!*

## Update on ETN's activities and events – COVID-19



**ETN**  
Global

*ETN is still very much active despite the unprecedented global COVID-19 crisis and will help our members in any way we can in these challenging times.*

As a result of the pandemic, we have been forced to postpone the ETN meetings and events scheduled for this spring and summer.

The ETN office and the Board are monitoring the situation closely, following the recommendations by the World Health Organisation, the European Centre for Disease Prevention and Control and the local governments. The safety of our participants is our highest priority, and we will take any necessary precautions to mitigate risks.

Due to the uncertain situation, ETN has changed its policy for registrations and sponsorships for all our events. In case any of the ETN events would be

- 1) **postponed** → the sponsorship would be moved to the new date, or
- 2) **cancelled** → the sponsor would be entitled to a full refund.

With regard to event registrations, registered delegates would have the choice to keep their registration if the event is postponed or to ask for a refund.

As a result of the current restrictions and travel bans announced by governments around the world, the ETN Board has decided to cancel our Annual General Meeting (AGM) & Workshop, set to take place from 30 June – 1 July 2020, and will organise a virtual AGM instead. The ETN office is planning a programme for an online event and will communicate more details in the upcoming weeks.

Also our LM2500 and SGT-A35 User Group Meetings have been postponed, but the work within both of our User Groups will continue. You can read more about these activities on page 4.

Our 10<sup>th</sup> International Gas Turbine Conference is still set to take place in Brussels on 14-15 October 2020, but a final decision will be taken by the ETN Board in June 2020. If the risk is regarded as too high then the conference will be postponed by 1 year.

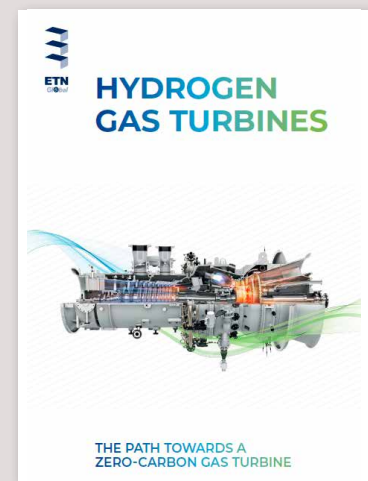
In the meantime, until it is safe again to organise normal face-to face meetings and events, ETN's Working Groups and projects are still moving forward and continue their activities using online meeting tools and platforms. ■

## Virtual AGM & Workshop Week

ETN's first-ever entirely virtual Annual General Meeting (AGM) will take place on 30 June 2020. The programme will consist of ETN's annual report of activities and achievements, strategy discussion, financial report, ETN Board election and online panel session on R&I requirements and challenges in a low-carbon world. The AGM will be followed by a series of individual Working Group meetings, including teleconferences with our Air Filtration, Additive Manufacturing, Hydrogen, Micro Gas Turbine and Supercritical CO<sub>2</sub> Working Groups, as well as with ETN's gas turbine component life assessment task-force. More details will be available [on our website](#) in May.

## ETN Hydrogen Gas Turbines report

ETN Hydrogen Gas Turbines report – "The path towards a zero-carbon gas turbine" was published earlier this year and it has received very good feedback from the global gas turbine community. If you do not have a copy of this must-read report yet, you can download it [here](#).



[www.etn.global/hydrogen-report](http://www.etn.global/hydrogen-report)

## New support platform launched

In order to help ETN members to overcome challenges they face in these difficult times, we have created a new support platform where our members are invited to submit requests for assistance or to raise problems of any type, and where other members can offer help and possible solutions for the discussed issues. If you have any concerns that you would like to raise or discuss with the global turbomachinery community, please access the platform [here](#) and post your question or request. ■



## ETN standard on gas turbine exhaust systems successfully published as an ISO standard

The International Organization for Standardization (ISO) has published a new standard "ISO 21905: 2020 Gas turbine exhaust systems with or without waste heat recovery", based on the work carried out by the ETN Exhaust Systems Working Group.

The project was initiated in 2009 by the ETN user community who experienced problems with their exhaust systems. The objective was to bring together operators facing similar problems, as well as exhaust system designers and external expertise and support, who could address the problems by developing a common standard for the design, construction and operation of gas turbine exhaust systems. In the first phase of the project, the group with Equinor, Total and Shell in the leadership carried out a gap analysis, uploaded an index to facilitate the creation of the standard, and collected valuable material. Shell and Equinor kindly provided copies of their internal standards covering exhaust system equipment for index and content guidance.

During various meetings the group decided to focus its activities on the creation of an exhaust systems standard incorporating Waste Heat Recovery Units (WHRU) equipment, to be followed by a later version based on Heat Recovery Steam Generators (HRSG).

An ETN standard was produced in 2015, and as a next step in February 2016 the Technical Committee ISO/TC 192 Gas turbines initiated a new work item aiming at drafting an ISO standard on the WHRU. In October 2019 the final draft of the "ISO 21905 - Gas turbine applications - Requirements for exhaust and heat recovery unit" was submitted for formal approval to the ISO/TC 192 WG 16. The ISO standard was published in March 2020. Work has yet to start on the HRSG based version of the standard.

The ETN standard and other Exhaust Systems Working Group documents are available for ETN members on [our website](#). ■

## New member

We are delighted to welcome Borealis (Sweden) who recently joined our network!



[Borealis](#) is an industrial user providing innovative solutions in the fields of polyolefins, base chemicals and fertilisers. The company has 6,900 employees and it operates in over 120 countries. ■

## Young Engineers Committee

As reported in our previous Quarterly Newsletter edition, ETN is in the process of establishing a Young Engineers Committee (YEC), which will provide a platform for exchanging ideas between promising new engineers from various ETN member organisations. The aim is to bring together the future generation of engineers and leaders of ETN members and the wider energy sector, able to sketch pathways for a successful energy transition towards a carbon-neutral society. Our mission is to provide promising engineers at the start of their career an opportunity to interact with colleagues from other organisations, as well as with leaders and technical experts of the wider turbomachinery community, with the objective to develop and support ideas and projects of common interest in the energy transition field.

As part of setting up this new committee, the YEC representatives and its advisory team have invited all ETN member organisations to provide their input through a [survey](#) in order to determine the interest of ETN members and to shape the YEC's direction within ETN. More information on this initiative is available on [ETN's website](#). ■



Amélie Pesquet presenting the Exhaust Systems WG at ETN's AGM-14 in Paris

## Quotes from ETN's Exhaust Systems Working Group

**“** I am very pleased that our initiative from back in 2009 within ETN to create an industry standard for GT exhaust systems/WHRU's now resulted in ISO21905 being published. As much as I am convinced that both end users and manufacturers will greatly benefit from it, for me also the process of developing the standard, while not always easy, was very rewarding. Credit is due to all the experts who freely shared knowledge and experience and worked dedicated towards a common goal, however, it would never have happened without ETN providing the framework and administrative support.

**Joerg Gottwald, Equinor**

**“** The draft ETN standard was taken as the starting point of the new ISO standard. A number of key personnel who had been instrumental in the ETN work, volunteered as experts for the ISO working group.

**David Champneys, BIHL**

**“** Setting up and coordinating the Working Group has enabled ETN to demonstrate an increasingly leading role within the International Gas Turbine community, successfully bringing together member companies and other stakeholders from equipment operators, suppliers and related academia.

**Paul Setchfield, Mjörud**

**“** Thanks to ETN, a combination of 25 companies gathered to join their efforts in putting time to define this standard. It was a privilege to lead initially this workgroup within ETN. ETN's support to follow up on our work and coordinate each review allowed us to move forward and once the final version was available ETN assured the interface with the ISO committee which brings us to today. For a company like mine, TOTAL finds that such work is the strong suit of our industry, thanks to the collaboration of all the companies, to the support of ETN, we are proud to know that this will now materialize in the ISO21905.

**Amélie Pesquet, TOTAL**

## ETN AT WORK

### ETN's engine-specific User Groups

*ETN's LM2500 User Group, launched in 2016, and our SGT-A35 User Group, established in 2017, have proven to be a well-tried method to provide a continuous and focused dialogue between the user community, original equipment manufacturers (OEMs) and independent service providers (ISPs), in order to define and develop solutions for prioritised operational issues and requirements.*

ETN's SGT-A35 User Group gathers the community of this Siemens aeroderivative engine, formerly known as Industrial RB211, extending it to the entire RB211 engine family. The LM2500 User Group brings together the users of the GE aeroderivative engine, and covers the family of the engine: LM2500, LM2500+, LM2500+G4, PGT25, PGT25+ and PGT25+G4.

#### Objectives of ETN's User Groups are to:

- ♦ Bring together the user community by collecting and categorising topics and requirements related to the SGT-A35 and LM2500 engines
- ♦ Provide a platform for a direct dialogue between the user community, OEMs and ISPs in order to address top priority topics in an efficient and focused way
- ♦ Bring more generic topics to ETN's Project Board and Technical Committees in order to explore potential solutions together with leading experts from the R&D community
- ♦ Explore opportunities to reduce issues through various types of collaboration schemes, such as via R&D projects and feasibility studies, as well as by developing best practice guidelines or standards
- ♦ Identify best practices and solutions to overcome or to mitigate the reported issues
- ♦ Collect and provide feedback on implementation of suggested solutions to the user community

#### This is achieved through the following steps:

##### 1. Collection phase

Operational and technical topics and future requirements are reported by the SGT-A35 and LM2500 user communities. All reported topics are collected anonymously in two engine-specific databases, developed by ETN.



## 2. Review & categorisation phase

Topics are reviewed and categorised based on frequency and economic impact. A request for solutions is launched to the OEMs asking them to address collected prioritised topics in their presentations at ETN's SGT-A35 and LM2500 User Group Meetings. A summary of reported topics is also sent to ETN's ISP members asking them to provide solutions or contributions to these topics. Based on their responses, the Steering Committees of the SGT-A35 and LM2500 User Groups then invite the selected ISPs to present at the relevant ETN User Group Meeting. The prioritised list of issues and requirements enable the OEMs and ISPs to focus their efforts on developing solutions for the most urgent needs of the users.

## 3. Meeting phase: solutions & developments

Solutions and developments are presented and discussed at ETN's User Group Meetings, together with technical experts from the OEMs and the invited ISPs.

## 4. Solution implementation/follow-up phase

The follow-up process includes collection of feedback from the users that have implemented recommendations and proposed solutions to assess the results and the outcome, which is disseminated to the user community. If no solutions are available, further root-cause investigations can be launched where ETN, as an independent actor, can collect additional information and data from the user community. More general technical issues are brought to the attention of technical experts from the R&D community within ETN's Project Board and Working Groups to discuss opportunities for collaborative projects.

## Upcoming User Group meetings

ETN's LM2500 User Group Meeting, planned to be held on 2-4 June 2020 in Aberdeen, UK, has been cancelled due to the COVID-19 pandemic – see more details on our [event page](#).

ETN's SGT-A35 User Group Meeting, initially planned to take place in May 2020, has also been cancelled. A postponement to November is under discussion for both of these two meetings. However, as it is very uncertain if any face-to-face meetings can be held in 2020, ETN is working on an option to **hold virtual online meetings to bridge the gap until it is safe to hold face-to-face meetings again**. More details will be communicated in the upcoming months.

In the meantime the ETN office is inviting the users of SGT-A35 and LM2500 engines to continue to submit any new topics for the upcoming meetings. If you have any questions please [contact Valentin Moëns](#) for further details.

More information on ETN's User Groups is available on our website – check out the webpages dedicated for our [SGT-A35](#) and [LM2500](#) User Groups.



## Educational courses

Does your organisation offer online courses on gas turbines? We are updating our [database on technical courses](#), given by our members, in order to promote and share the knowledge and experience of the ETN community. If you would like to list some of your courses on our website, please [send us](#) more details. ■

## IGTC 2020



The Conference Advisory Board of ETN's 10th International Gas Turbine Conference (IGTC) met in January to complete the reviews of the submitted technical abstracts. Authors of selected abstracts were invited to submit a full technical paper for the IGTC by 29 April 2020. The paper reviews will be carried out by the Conference Advisory Board during this summer.

ETN's IGTC is still set to take place on 14-15 October 2020 at Le Plaza Hotel in Brussels, Belgium, but we are currently monitoring the situation, and a final decision about organising the IGTC-20 will be taken in June 2020. We are looking into the option to postpone the conference by 1 year, and would then invite the authors of those technical papers that were selected for IGTC-20 to present their papers in 2021. Regular updates will be published on our [IGTC webpage](#). ■



## Interview with Alessandra Cuneo, FLEXnCONFU project coordinator



*The energy transition towards a carbon-neutral society can be achieved through the integration of renewable energy sources (RES) into the grid, balanced with dispatchable centralised power generation plants. This poses a flexibility challenge for the thermal power generation sector, called to feed the grid in presence of insufficient RES.*

*In order to tackle this challenge, the EU's Horizon 2020 research and innovation programme has granted funding for the FLEXnCONFU – “FLEXibilize combined cycle power plant through Power-to-X solutions using CONventional fuels” project. We interviewed Alessandra Cuneo, FLEXnCONFU project coordinator from RINA-C, to gain some insight into this interesting research project.*

### **What is the idea behind FLEXnCONFU?**

The FLEXnCONFU project aims to respond to today's challenge for fossil fuel power plants, which have to shift their role from providing base-load power to providing fluctuating back-up power. The strong fluctuations will not only reduce the operating life of the plants' components, but also reduce efficiency and increase greenhouse gas (GHG) emissions.

The idea behind FLEXnCONFU is to explore innovative power-to-gas-to-power solutions, which would allow a less fluctuating operation of the power plants while producing decarbonised fuels (e.g. hydrogen ( $H_2$ ) and ammonia ( $NH_3$ )) to burn in the same power plant, reducing the GHG emissions.

### **What is the main goal of FLEXnCONFU?**

The main goal of FLEXnCONFU is to develop and demonstrate in a real combined cycle (CC) plant an innovative, economically viable and replicable power-to-X-to-power solution that enables the operation and design of an integrated power plant layout to untap CC plants' flexibility.

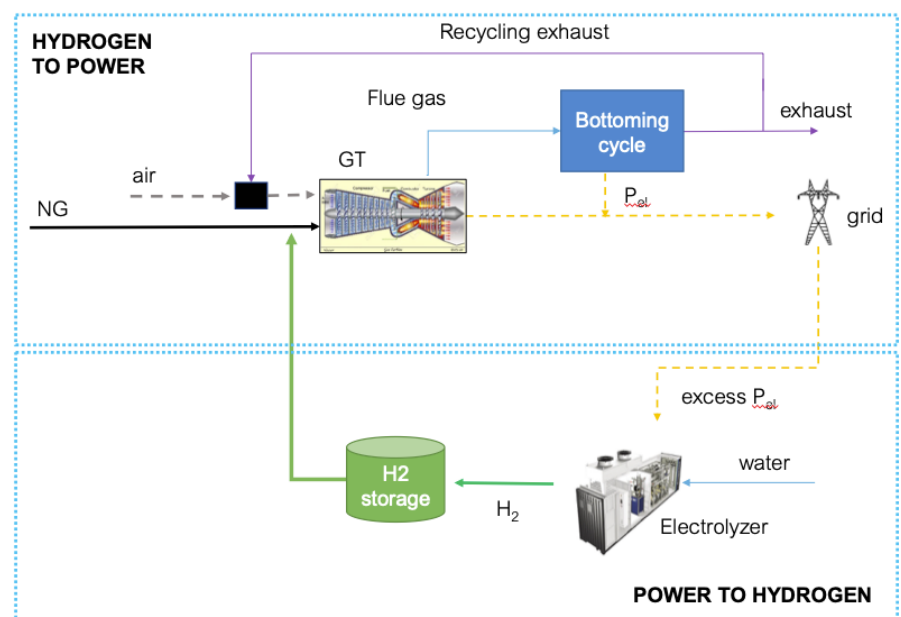
Within FLEXnCONFU project, to level the CC plants' load, the electricity production could be converted in  $H_2$  or  $NH_3$  as carbon free fuels via power-to-X-to-power application, in turn to be locally re-used in the same power plant to respond to varying demand. The final goal is to provide a more flexible, smart and resilient power system.

### **What are the objectives of the project consortium?**

In order to achieve the main goal and tackle the mentioned challenges, the FLEXnCONFU consortium has set specific and quantitative technical objectives.

Our first objective is the demonstration of a power-to-hydrogen system in a real operational environment (EDPP Ribatejo power plant), where a complete system composed by a 1 MW fast-cycling electrolyser, gas compressor and pressurised hydrogen storage will be installed. The goal is to operate the power-to-hydrogen solution for 1000 hours connected with the combined cycle.

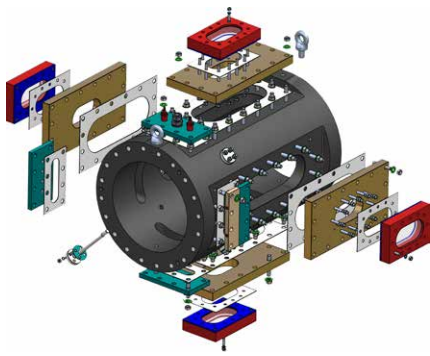
*continued on page 7*



## Interview with Alessandra Cuneo, FLEXnCONFU project coordinator

continued from page 6

The second objective is to study the combustion of hydrogen and ammonia. The tests will be performed at the heavy duty representative GT combustion system at the combustion lab of Cardiff University. Additionally the re-design of a micro gas turbine combustion chamber to burn 100% ammonia will be developed.

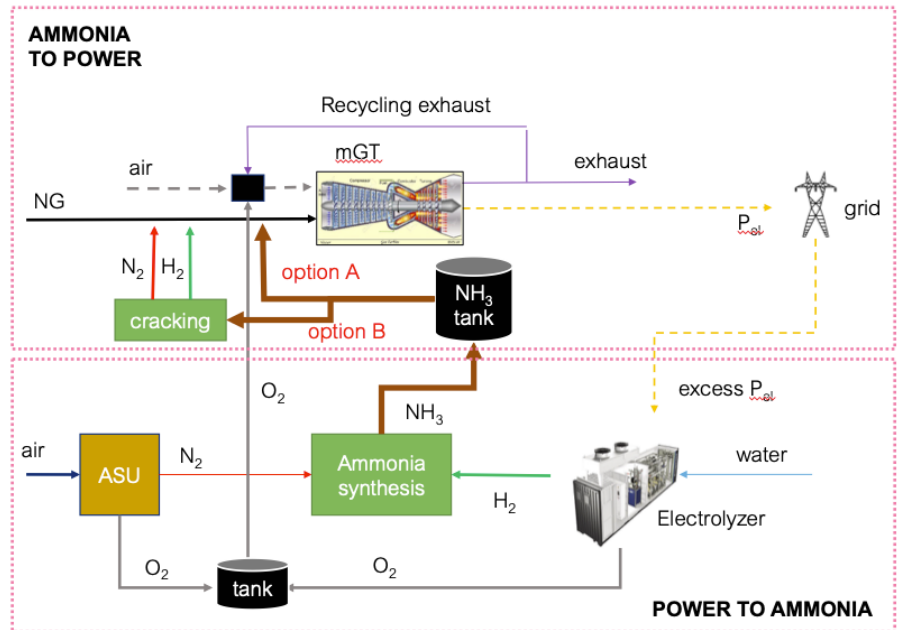


Our third objective is to develop a power-to-ammonia solution, which will be demonstrated up to technology readiness level (TRL) 6 in the Savona lab of University of Genoa, where a modular and containerised solution will be connected to an existing micro gas turbine (T100), installed within a smart grid, properly modified for ammonia combustion. The goal is to operate the system at  $T < 300^{\circ}\text{C}$  and  $p < 35\text{bar}$ .

The fourth objective consists of efficient integration of power-to-X components via grid-oriented advanced control system. Dynamic models of the main components will be developed using reduced order models. These models will be the starting point to develop advanced control strategies including grid requests.



Follow FLEXnCONFU on



### What is the expected impact of the project?

The FLEXnCONFU project is a “demonstration-to-market” project, with relevant impacts on all the stakeholders of its value chain that will benefit from it by strengthening their competitiveness and growth on the market.

The outcome of the project will contribute to the development of a smart, secure and more resilient power system, while allowing a smoother operation of CC plants and reducing the GHG emissions. The table below shows FLEXnCONFU’s main technical impacts:

♦ Reduction of minimum load:	-10%
♦ Increase of CC plants yearly efficiency:	-5%
♦ Increase yearly equivalent operating hours:	5÷10%
♦ Reduction of yearly start-up numbers:	-10%
♦ Quicker ramp up/down with load gradient:	+10÷15%
♦ Reduction of NG consumption and related emissions:	-10÷20% of $\text{GHG}_{\text{eq}}$

### FLEXnCONFU consortium



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 884157



## European Commission proposes a new climate law

Making Europe the first climate-neutral continent in the world by 2050 was one of the key priorities of the European Commission President Ursula von der Leyen and the new EU Commissioners who took office in December, and in March 2020 the EU Commission introduced its new [climate law proposal](#) as part of the Green Deal package. The aim of this new legislation is to make the 2050 climate-neutrality deadline legally binding in the EU.

EU Commission's [inception impact assessment](#) was launched in March, followed by a [public consultation](#). Based on the results of this assessment, and the national energy and climate plans (NECPs) submitted by the EU member states, the Commission will propose this September a new, more ambitious 2030 target for cutting the greenhouse gases. The aim is to raise the 2030 target from the current 40% to 50-55% compared to 1990 levels. Directives to be revised, in line with the new 2030 target, include for example the European Emissions Trading System (EU-ETS), Energy Efficiency and Renewable Energy directives.

The EU Commission proposes to assess the measures every five years and can issue recommendations to those EU member states that are not on the track to reach the climate neutrality objective. The climate law still needs to be approved by the European Parliament and the EU member states.

The Commission launched also a public consultation on its proposed [European Climate Pact](#), another Green Deal ini-

tiative, with the aim to engage citizens and communities in climate action.

As part of a [new industrial strategy](#) for Europe, the EU Commission introduced a European Clean Hydrogen Alliance that aims to “accelerate the decarbonisation of industry and maintain industrial leadership”, with the objective to bring investors together with governmental, institutional and industrial partners. It will “build on existing work to identify technology needs, investment opportunities and regulatory barriers and enablers”.

According to [EURACTIV](#), some of the “non-essential” Green Deal initiatives will most likely be delayed due to the current COVID-19 crisis. EU’s objective was to step up its efforts ahead of the United Nations climate change conference COP26, meant to take place in Glasgow (UK) in November 2020, but the conference has now been [postponed to 2021](#) due to the coronavirus outbreak.

Frans Timmermans, the Executive Vice-President for the European Green Deal, said in a [statement](#) that he would “take note” of the UK’s announcement to postpone the COP26, but highlighted that the European Commission would not slow down their work and continues working towards 2030 and 2050 climate and energy targets. US President Donald Trump announced that the country would leave the Paris Agreement on 4 November 2020, but the Democratic candidate Joe Biden has promised the US to rejoin the agreement if he wins the election. Interestingly the US presidential election is set to take place on 3 November 2020. ■





# RHC Renewable Heating & Cooling

European Technology and Innovation Platform

## European Technology and Innovation Platform on Renewable Heating and Cooling

ETN is a member of the European Technology and Innovation Platform on Renewable Heating and Cooling (RHC-ETIP), which brings together stakeholders from the biomass, geothermal, solar thermal and heat pump sectors (including the related industries such as district heating and cooling, thermal energy storage, and hybrid systems) to define a common strategy for increasing the use of renewable energy technologies for heating and cooling. The platform aims to play a decisive role in maximising synergies and strengthening efforts towards

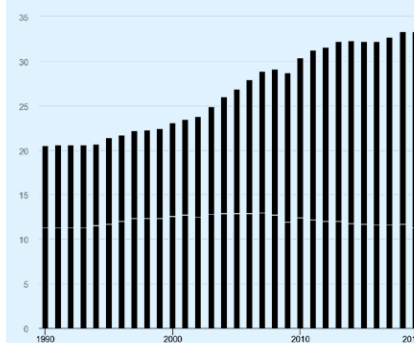
research, development and technological innovation.

ETN is actively involved in the “100% RE Buildings” and “100% RE Industries” Working Groups, and has been advocating for the inclusion of research activities on micro-CHP and CCHP technologies to be deployed in the buildings. We recently provided input to the Research Roadmap of the RHC Platform, specifically for the building and industry sectors, based on the feedback from our Micro Gas Turbine Working Group members. Visit the [RHC-ETIP website](#) for more information on the current activities. ■

## IEA: global CO<sub>2</sub> emissions stopped growing in 2019

After two years of rising emissions, the International Energy Agency (IEA) [reported](#) less energy-related CO<sub>2</sub> emissions globally in 2019, despite the economic growth. This mainly resulted from the power sector's declining emissions in advanced economies, due to the expanding role of renewables, such as wind and solar, fuel switching from coal to natural gas, and higher nuclear power output. Milder weather in many countries played a part too. Natural gas produced more electricity than coal for the first time in Europe, and wind-powered electricity nearly reached the share of coal-fired electricity.

[According to IEA](#), global CO<sub>2</sub> emissions would fall this year as a result of the coronavirus outbreak and its impact on economic activity, especially on transport. [Carbon Brief](#) predicts that COVID-19 could trigger the largest ever annual fall in CO<sub>2</sub> emissions in 2020. European Environment Agency (EEA) has already [reported](#) a drop in air pollution across Europe due to the recent coronavirus measures. ■



Energy related CO<sub>2</sub> emissions  
1990-2019 © IEA

## Impacts of COVID-19



Due to the decline in power and industrial production, the demand for carbon allowances has been dramatically reduced, resulting in a significant drop in carbon prices. The European University Institute [reports](#) a temporary fall of the European Union Emissions Trading System (EU ETS) carbon market price from the €25 to a €15-20 range.

Low oil demand and overproduction have had a dramatic impact on the oil and gas sector, resulting in record-low oil prices and a shortage of storage space for oil. The International Energy Agency (IEA) [urges](#) major consumers and producers to work together “to mitigate the impact on market stability”. ■

## Upcoming meetings and events

Meeting/Event	Date	Location
ETN Annual General Meeting & Workshop**	30 June - 1 July 2020	Online meetings
ETN High-Level User Meeting	13 October 2020	Brussels, Belgium
ETN's 10 <sup>th</sup> International Gas Turbine Conference 2020	14-15 October 2020	Brussels, Belgium
Enlit Europe*	27-29 October 2020	Milan, Italy
ETN SGT-A35 User Group Meeting	November 2020	To be confirmed
ETN LM2500 User Group Meeting	November 2020	To be confirmed

\* ETN members are entitled to a discounted registration fee | \*\* Event only for ETN members

## ETN Team



**Christer Björkqvist**  
Managing  
Director



**Noora Kilpinen**  
Communications  
Officer



**Ugo Simeoni**  
Research & Innovation  
Manager - Policy and  
Projects



**Valentin Moëns**  
Technical Project  
Officer



**Ilona Kolb**  
Financial and  
Administrative Officer



**André Mom**  
External  
Consultant

### ETN at a Glance!

Download the [ETN Brochure](#) and find out more about our mission & objectives, activities, events and more!



Are you interested to become an ETN member? Download the [one-pager](#) showcasing the benefits of being part of ETN's global turbomachinery community.



Keep in contact and updated with ETN's most recent news.

Follow ETN on Twitter: [@etngasturbine](#) and on LinkedIn!



**ETN a.i.s.b.l**

Chaussée de Charleroi 146-148/20 ■ 1060 Brussels ■ Belgium

Tel: +32 (0)2 646 15 77 ■ [info@etn.global](mailto:info@etn.global) ■ [www.etn.global](http://www.etn.global)