ETN Monthly News Summary - June 2012

6th International Gas Turbine Conference – The Future of Gas Turbine Technology (17-18 October 2012):

Registration has now opened for the IGTC-12!

We look forward to seeing you then and we welcome you to submit your registration online by clicking here.

Sponsorship opportunities: there are still sponsorship opportunities available for the upcoming IGTC-12, which is an excellent prospect for ETN members to enjoy visibility in front of a high-level international audience. The <u>Sponsorship Order Form</u> can be found on the <u>conference website</u>, in which we offer several different Sponsorship Packages, as well as flexible personalised options that correspond to your specific request for visibility at the conference. If your organisation is interested in sponsorship, please contact the <u>ETN Office</u>.

ETN's new public website launched: you are invited to visit the ETN public website. The members-only section of the new website will be launched later this year.

Technical Committees and Projects Updates:

Improving Filter Systems: the filtration companies within ETN (AAF, Donaldson and Camfil Farr) are developing a database that will provide an opportunity to users to evaluate potential improvements to their filter systems. The data included in this database is collected through a questionnaire, which seeks feedback on different types of installations and their current filtration systems.

ETN and the ETN board would like to strongly encourage all ETN users to complete the <u>Filtration Site Survey</u> questionnaire, or to forward it to the relevant expert in your organisation. The quality of the database and the conclusions derived from it will increase with the amount of completed questionnaires. The users who complete the questionnaire will benefit from the outcome, as the database will be accessible to all participating users.

Design and certification of GT exhaust systems and WHRUs - CFD Benchmark Case Study: as part of the preparation of the ISO standard, the Exhaust Systems Project decided that a measurement programme should be implemented on a full scale GT exhaust system. Total offered the opportunity to have these measurement tests done on a GE LM2500GT as part of the hot bed trials. The purpose of the measurement programme is to acquire data with which to validate the different types of CFD analyses. This validation case will be used as the basis for the development of the best practice guidance on CFD modelling requirements to support design and certification of GT exhaust systems and WHRUs. It will also provide a database of results for future benchmarking studies as CFD methods continue to develop. More information can be found in the Description of Work.

The cost of this study is substantially lower as a result of the offered opportunity from Total to perform the test on one of their systems and the in-kind support from Total, RWTH Aachen as well as Frazer-Nash. Please contact the ETN Office if you are interested in supporting the Exhaust Systems Project CFD Benchmark Case or if you require further information about the planned study.

ETN Gas Turbine Short Courses (4-8 June 2012): The first edition of the Gas Turbine Short Courses, directed by the Department of Power & Propulsion of Cranfield University and hosted by Total in Pau, was successful: the event was attended by 21 delegates, who were educated in engine and component design as well as performance of gas turbines for the energy sector, with special attention to gas turbine operations and maintenance.

If there is interest among ETN members similar Gas Turbine Short Courses can be organized in cooperation with ETN.

ETN participated in the two leading GT trade shows: ASME and PowerGen this year, please see a brief summary below:

ASME (11-15 June 2012): ETN had the opportunity to present itself and its activities during a presentation at this year's ASME Turbo Expo and also participated in a panel session on power plant modeling, led by Pericles Pilidis.

ETN attended several other sessions in which the changing operational conditions of the gas turbines and the consequent need for flexibility, both in operation as well as with regard to the fuel, were highlighted.

The expo stand was visited by many ETN members, as well as several international visitors. It was also an opportunity to advertise the upcoming IGTC-12, to further distribute ETN brochures and newsletters, as well as deliver the message of the recently published position paper. Several meetings were held to explain ETN's activities and to explore possible future cooperation, for example, with EPRI.

The next edition of the ASME Turbo Expo will take place in San Antonio, Texas, from 3-6 June 2013.

POWER-GEN Europe (12-14 June 2012): The 20th POWER-GEN Europe conference and exhibition took place at the Messe in Cologne, Germany. ETN was represented by President Emeritus and Senior Consultant Andre Mom, as well as Project Board Member Peter Breuhaus (IRIS).

The highlights of this years' show included the opening keynote speeches from László Varró, Head of IEA's Gas, Coal and Power Division, Bernard Fischer, CEO of E.ON Generation, and Michael Sü β , CEO of Siemens Energy in Germany. The message of Dr. Fischer was nearly provocative: he heavily criticised the decision of the German government to withdraw from nuclear energy and boost renewable capacity. The fact that 'no expert was asked and no risk assessment was done' prior to the government's decision was considered to be an insult towards the German power industry.

On the second conference day there was a lively plenary panel debate, hosted by leading international journalist Stephen Sackur, which explored the impact of Germany's energy policy and whether the Energiewende is the right approach for the rest of Europe. It culminated in a panel split up in opinion, but in agreement that renewables will have to play a significant role in the future of Europe's energy industry.

Next year POWER-GEN Europe will be hosted at the Messe Wien in Vienna, Austria from 4-6 June 2013.

EU Policy Updates:

Position Paper on Priorities in Horizon 2020: ETN is pleased to have received positive feedback from Members of the European Parliament, and news that the suggested amendments will be considered during the upcoming <u>discussion and vote in the EP</u>. To view the joint Position Paper of the European fossil fuel associations, please click here.

Europe's Power Supply: Innovation and Investment: EUREL, a European association for Electrical Engineers, presented the results of its study investigating where Europe's electricity supply might come from in 2050. The study looked at two scenarios; a high renewables scenario (hi-RES) and a low renewables scenario (lo-RES). It was concluded that the hi-RES would be considerably more expensive, but would mean less dependency on imports. A fossil fuel standby would be crucial due to the intermittency of many renewable energy sources. Acceptance and viability of Carbon Capture and Storage will be crucial to the lo-RES scenario. A representative from the European Commission (EC) said that the findings presented were entirely in-line with the EC's 2050 Energy Roadmap.

Unconventional Fuels: at a roundtable discussion organised by German-French think-tank IFRI, it was estimated that together, shale oil and shale gas could propel the United States to levels of oil and gas production last seen in the early 1970s, as fracking technologies continue to improve. From a geological point of view, it was said that shale oil and shale gas are highly related and that both are recovered through a similar extraction process. Outside the US, the potential for shale oil development is largely unknown.

Gas as a Long-term Replacement of Coal: at this year's European Union Sustainable Energy Week (EUSEW), high-level EU representatives discussed that gas is one of the very few sources of electricity which does not require subsidies and declared that in the future gas should be used not just as a transitional fuel but as a long-term replacement for coal. EUSEWis the key annual event of the Sustainable Energy Europe Campaign, which contributes to achieving the EU 2020 climate and energy targets with regard to greenhouse gas emissions, energy efficiency and renewable energy sources. For more information please click here.

EU carbon trading system needs improvement: during a dinner debate organized by the European Energy Forum (EEF), ENEL called for a structural revision of the EU's Emissions Trading Scheme (EU ETS). In their view, the most suitable short term option is the "set-aside" of carbon credits to push-up the price or a revision of the auctioning schedule. While ENEL stressed the need for an integrated policy framework, including both the CO₂ reduction policies and incentives to RES and energy efficiency measures. ENEL called for clear post-2020 targets which are coherent with long term objectives, and intermediate milestones, such as a CO₂ emission reduction target for 2030. Please <u>click here</u> to view the presentation given by ENEL.

Natural Gas and Shale Gas could Revolutionise the Energy Sector: at BP's Annual Statistical Review, it was predicted that, while oil remains the world's leading fuel at 33.1% of global energy use, gas will be the fastest growing fossil fuel for the next 20 years. BP published its 61st Annual Statistical Energy Review this month and BP's chief economist, Christof Rühl, presented the data at an event in Brussels. Mr Rühl stated that gas production grew by 3.1% globally and talked much of the shale gas revolution in the US. He also mentioned the huge growth in the trade of natural gas and the potential of shale gas to revolutionise the energy sector worldwide. For more information please click here.

Comment [B1]: Pls add link to respective ETN article from the website

Please note the following upcoming GT events:

9th European Fluid Mechanics Conference, Rome, Italy, 9-13 September 2012 6th International Gas Turbine Conference – The Future of Gas Turbine Technology, Brussels, Belgium, 17-18 October 2012

Please keep a look out for the ETN Public Quarterly Newsletter, which will be circulated to ETN members and contacts at the beginning of July!