

ETN Monthly News Summary – June 2015

ETN OCTOBER WORKSHOP: 21-22 OCTOBER 2015, MADRID, SPAIN

Save the date! The upcoming ETN October Workshop will take place on 21-22 October 2015 in Madrid, Spain. A preliminary agenda with the topics and more details will be provided in July.

EU-CHINA MEETING

On 3-4 June 2015, an EU-China meeting took place at City University London between the OMSoP consortium, BioStirling-4ska consortium (EU-funded project on Stirling engine and CSP), the Dish-Stirling Solar Thermal Power Technology consortium (Chinese project on Stirling engine and CSP), representatives of the European Commission and MOST (Ministry of Science and Technology of China). The two technologies (MGT and Stirling engine) were evaluated according to the results achieved in the projects. The Chinese partners showed a higher interest in using MGTs for CSP-solar dish systems rather than Stirling engines. A cooperation agreement was signed between the OMSoP and the Chinese project consortiums where both parties expressed an interest in the development of hybrid electricity generating system and the thermo-electric system and were interested to explore their market application together.

After this meeting, ETN prepared [some documentation](#) and submitted it to the EC and MOST in preparation to the EU-China Summit which took place on 29 June 2015 in Brussels between the European Union and the People's Republic of China. To view the outcome of the EU-China Summit, please [click here](#).

TECHNICAL COMMITTEE AND PROJECT UPDATES

Call for Expression of Interest: During the ETN Workshop, numerous initiatives were discussed in the individual TC sessions. In order to develop these initiatives further, ETN asks each member organisation to indicate which initiatives they are interested in and assign a representative to them. If you have not already done so, please complete/return the Call for Expression of Interest attached to this email.

Technical Committees 1: A discussion between TC 1 members is currently taking place on the drafting of a position paper “*A holistic approach for future carbon free energy*”, where the importance of combination of GTs and RES is highlighted. The aim of the paper is to address short and long term alternatives which enable a future carbon free energy system. The paper will be divided in two sections: short term perspectives and long term perspectives.

Technical Committees 2: Two topics are under discussion:

CO Emission/Combustion Dynamics Prediction and Control: A teleconference will be held on 9 July 2015 with Laborelec and E.ON Technologies who proposed to start a cooperative project with the objective to create a model to predict CO emissions at all loads, using a continuously updated neural network.

Fuel Flexibility with the Same Gas Turbine: ENEA's representative reported that he is leading a group on combustion instabilities with the intention to submit a proposal in the next Horizon2020 Work Programme and he would like ETN's support in preparing the proposal.

A teleconference was held about Fuel Flexibility issues where it was stated that the main issue is hot corrosion on the Hot Gas Path Components. It was decided to draft a one-page description on the causes of hot corrosion in order to better define the way forward to tackle the issue.

Technical Committees 3: Two topics are under discussion:

Air Filtration: A meeting took place on 6 May 2015 to discuss Parts 2, 5 and 6 of the ISO29461 standard and comments submitted by the Air Filtration Working Group's (WG) members. Peter Hall, E.ON Technologies (Chairman) and Ugo Simeoni, ETN attended the ISO/TC 142 meeting on 8 June 2015 as

representatives of ETN's Air Filtration WG. During the meeting, users' representatives pointed out that it would be interesting to perform testing activities on how a single filter element is performing in the complete air filtration system and to evaluate the aging effect on the filters (single element or multi-stage). A small industrial project, managed by ETN, could be set-up with the objective to perform these testing activities on a model scale test rig involving R&D institutes. The costs of the project could be split among the WG industrial partners.

Additive Manufacturing: A teleconference was held with regards to the proposal on topics for project submitted to ETN by Gerrit Kool, NLR on Additive Manufacturing. It was proposed to contact GT Users in order to get some inputs needed to evaluate which parts could be advantageous to be manufactured with Additive Manufacturing.

Technical Committees 4: Two project proposals are being discussed:

- a. Condition Based Maintenance (CBM)
- b. Data Reduction

ETN sent an open call asking for Express of Interest among ETN members for CBM (see attached). Two teleconferences were also organised to follow-up on the CBM project, the first one with GT OEMs and GT Users on 25 June and the second one with R&D Institutes and Service Providers on 1 July.

Technical Committees 5: Three projects are being discussed:

Exhaust Systems Standard: The Exhaust Systems Working Group is finalising the WHRU standard to be submitted to the ISO/TC 192. During the AGM, it was proposed by the TC5 members to work on a similar standard for the HRSG.

Best Practice Guidelines for Combined Cycle Power Plant: The aim of the Best Practice Guidelines for Combined Cycle Power Plant proposal is to share the best practice to adapt the plants to the new boundary conditions on European markets. It was suggested to nominate a Committee within ETN whose task would be to rate these best practices.

Risk Based Inspection: The Risk Based Inspection (RBI) proposal has been submitted by Pascal Decoussemaeker, Alstom and it is expected that the main outcome would be a RBI framework and degradation model to optimise and quantify the benefits of different inspection options.

POLICY UPDATES

Final TWG meeting on the LCP BREF Revision: The Final Technical Working Group (TWG) meeting for the review of the Large Combustion Plant (LCP) Best Available Techniques Reference Document (BREF) took place from 1-9 June in Seville, Spain. Two representatives from ETN's IED Committee joined the meeting in Seville on behalf of ETN: Tomas Alvarez from Endesa and Neil Dawson from National Grid.

The discussions focused on the technical aspects of BAT and more than 50 BAT conclusions and 300 BAT-AELs were discussed and agreed on. However, there are a few issues that could not be addressed or completed during the final meeting. In order to progress further on these, the European Integrated Pollution Prevention and Control Bureau (EIPPCB) will organise a Webinar early in July for a number of topics which require interactive discussions between TWG members. For the other outstanding topics, the EIPPCB proposed to organise a written consultation asking for the TWG members' feedback by 31 July 2015. As a result, there are still some critical issues that are not fully defined and still some uncertainties. ETN will participate in the webinar and continue to seek for further clarifications. For more information, please visit the [IED Committee webpage](#) on the ETN website (you need to be logged in to access all documentation).

Acknowledgments: ETN would like to warmly thank all IED Committee members that have actively contributed and especially ETN's Committee Chair, Roger Brandwood (E.ON Technologies) and Tomas

Alvarez (Endesa), Neil Dawson (National Grid) and Swift Tarbell (PWPS) for their valuable contribution and active involvement in the reviewing process of the LCP BREF document.

European Union Sustainable Energy Week (EUSEW): This year the European Union Sustainable Energy Week (EUSEW) took place on 15-19 June 2015, with a series of events and initiatives highlighting renewable energy and energy efficiency, including a high-level policy conference in Brussels with 4000 participants from more than 50 countries. ETN representatives attended sessions on EU climate change and energy policy, carbon capture and storage (CCS), energy efficiency and the integration of variable renewable energy into the grid. In the opening session, Dominique Ristori, Director-General for DG Energy, European Commission stated that energy efficiency and a move from fossil fuels are both compatible with growth, pointing to a 3% growth in the world economy last year while global energy emissions remained flat. He added that better enforcement of EU legislation and consensus on binding targets are key drivers of more sustainable energy use. To see the highlights of the week as well as the presentations, please [click here](#).

Carbon Capture and Storage: The European Union's Energy Roadmap 2050 anticipates that CCS technology will play an important role in decarbonising the European energy system from around 2030 onwards. However, so far progress towards this goal has been very slow. Installing 11 GW of CCS electricity generation in the EU by 2030, as envisaged by the EU Energy Roadmap, could cost between €18 and €35 billion. Current policies, including those foreseen by the 2030 framework for climate and energy and the emerging Energy Union, are unlikely to deliver this investment. New and stronger policy is required at the EU and Member State levels to accelerate the development and deployment of CCS over the next decade.

On 16 June, the Grantham Research Institute on Climate Change and the Environment launched a report on CCS in an event in Brussels. The report clearly states that the EU requires stronger policies to incentivise CCS such as having mandatory targets on CCS in order to push the private sector to engage in the technology or introducing tailored incentives to support the intake of industrial CCS. It also calls for a more ambitious and coordinated action as only a small number of Member States has introduced policies to support CCS. To view the report, please [click here](#).

PLEASE NOTE THE FOLLOWING UPCOMING GT EVENTS

ETN internal meetings:

- **ETN Board meeting:** 1 July 2015, Brussels, Belgium
- **CBM teleconference call:** 1 July 2015
- **Conference Advisory Board teleconference call (IGTC-16):** 3 July 2015
- **TC2 teleconference call: Prediction of CO emission proposal:** 9 July 2015
- **ETN October Workshop:** 21-22 October 2015, Madrid, Spain
- **ETN Project Board and TC Chairs meeting:** 26-27 November 2015, Brussels, Belgium

Gas Turbine Events:

- [ASME ORC Power Systems Conference](#): 12-14 October 2015, Brussels, Belgium
- [SGT5-4000F User Conference](#): 12-15 October 2015, Berlin, Germany (organised by GTUsers.com)
- [GT26 User Conference](#): 12-16 October 2015
- [GE Frame 6B, 7E & 9E User Conference](#): 13-16 October 2015, The Hague, The Netherlands (organised by DGTA)
- [2015 Industrial Application of GT Symposium](#): 19-21 October 2015, Banff, Canada
- [Frame 9FA/FB User Conference](#): 2-5 November 2015
- [EVI-GTI International Gas Turbine Instrumentation Conference](#): 3-5 November 2015, London, UK
- [International Gas Turbine Congress \(GTSJ\)](#): 15-20 November 2015, Tokyo, Japan

ETN's News Summary is distributed internally to ETN members at the end of each month.

ETN's Quarterly Newsletter is circulated to members and external contacts every quarter. The next edition will be July-September 2015.