

SUMMARY OF THE 29TH IETS EXECUTIVE COMMITTEE MEETING 27-28 NOVEMBER 2019 IN ESPOO FINLAND

The meeting was kindly hosted by VTT Technical Research Centre of Finland, which also organized a site visit to the VTT Bioruukki Pilot Centre.

ExCo members (delegates and/or alternate delegates) from nine member countries, one Finnish observer and the IETS Secretariat staff participated in the meeting.

About 25 people, including a number of Finnish stakeholders, participated in the preceding workshop on "Major Activities in IETS and in Finland on Industrial Energy Efficiency and GHG Mitigation".

SUMMARY OF THE EXCO MEETING

A large part of the IETS ExCo meeting dealt with proposals for new activities, e.g. on "Roadmap/Transition plan for the decarbonisation of Industry" and Industrial Symbiosis in a closed carbon cycle economy. The preparations for the new Annex, focusing on electrification in industry, and a continuation of Annex XV, Industrial Excess Heat, are ongoing.

Election of Chair and Vice Chairs for 2020-2021 was performed. Chair Thore Berntsson, Sweden, and Vice Chair Clemente Pedro Nunes, Portugal were reelected. Eric Soucy, representing Canada, was elected new Vice Chair.

The IETS activities can be grouped in the following way:

Cross-cutting technologies, including:

- Annex XV, Industrial Excess Heat
- Annex XVII, Membrane Processes in Biorefineries
- Annex XVIII, Digitalization, Artificial Intelligence and Related Technologies for Energy Efficiency and GHG Emissions Reduction in Industry
- Annex XIX, Electrification in Industry (including Hydrogen)
- Expert workshop on deep decarbonization

Industry-based, including:

- Annex XIV, Energy efficiency in the Iron and Steel industry
- Annex XVI, Energy efficiency in SME:s
- Possible annex on roadmaps in different industry types

Industrial systems and methodologies, including

- Annex XI, Industry-based Biorefineries

- Possible annex on industrial symbiosis, circular economy

Status reports, including proposals for new activities were given from all current Annexes:

Annex XI (Industry-based Biorefineries) has started working in the new task - "Decision Support Tools and Ex-Ante Research for Evaluating Bioeconomy Transformation Strategies". Work planned and achieved for 2019:

- Positioning of the new Task through discussions with partners, including Portugal, Sweden, Finland, and Netherlands;
- Creating of a Task Force composed of Canada, Sweden, and Portugal to rethink and renew the Annex XI vision and related activities;
- Creating a formal liaison with IEA Bioenergy Task 42;
- Reviewing IEA Bioenergy Tasks and IETS Annexes and identifying potential synergies;
- Identifying interested country experts
- Identifying new ideas within the revised vision and mandate of Annex XI:
 - Site-level energy analytics for biorefinery integration
 - Energy and GHG intensity of biorefinery value chain
 - Artificial intelligence to biorefinery transformations
 - Circular economy and biomass-oriented industrial symbiosis

Annex XIV (Energy-efficiency in the Iron and Steel Industry) has been put on hold. However, the IETS Secretariat will make a short survey during December to identify possible areas to work with.

Annex XV (Industrial Excess Heat Recovery) has delivered a Final Report from Task 2, which is

published on the website. The planning for a Task 3 is ongoing. Suggested subtasks, including three face-to-face-meetings are:

1. Combination of methods for excess heat identification and quantification
2. Consequences for excess heat levels of future changes in industrial energy systems
3. Operational aspects in industrial energy systems
4. Opportunity and risk assessment for excess heat projects
5. Compilation of innovative excess heat projects

Annex XVI (Energy Efficiency in SMEs) will produce a final report based on the current tasks and also discuss a continuation of this Annex. Two articles have been published:

- [A review of energy efficiency policies for small and medium-sized manufacturing enterprises from around the world](#)
- [Designing Policies and Programmes for Improved Energy Efficiency in Industrial SMEs](#)

Annex XVII (Membrane processes in biorefineries) has earlier been granted an extension by the ExCo and now reported that:

- Annex partners have been mapped and their interest has been confirmed.
- Task leaders have been approached and confirmed.
- A co-ordination meeting was to be held in December 2019 has been sent.

Annex XVIII (Digitalization, Artificial Intelligence and Related Technologies for Energy Efficiency and GHG Emissions Reduction in Industry) has started the first task and reported the following activities:

- Performed interviews to know who is who and through a detailed questionnaire they have produced a matrix of interest
- Developed a common vocabulary
- Developed three new Task proposals that will be ready for approval at the ExCo meeting in May

Approval to continue with new Tasks can be given before by written procedure.

Annex XIX (Electrification in Industry) has defined a proposal for Task 1, which will proceed in three steps: Mapping, Scoping and Synthesis & recommendations. The time schedule is quite tight – interviews with stakeholders are ongoing, a

questionnaire will be sent out very soon and a first webinar is to be held on January 13. The webinar will give opportunities for input, early involvement and participation. The Final Report shall be ready in May.

An International Expert Workshop on Deep Decarbonization in Industry was organized by the IETS in October. There were six sessions, including group and plenary discussions. [All presentations can be found at the IETS website](#). The Final Report will be ready early 2020.

IEA TCP branding has been modified and the IETS Secretariat is currently updating the communication material accordingly.

Possible new sponsors: École Polytechnique Lausanne and Lucerne University of Applied Science and Arts from non-member country Switzerland are interested to participate in IETS annex work and will be invited as sponsors.

The contents of one **Topic Sheet on “Excess heat” (Annex XV, Task 2)** were approved and will be published and one based on findings in Annex XVI will be produced.

The next IETS ExCo Meeting will take place in mid-May 2019, probably in Paris, France.

SUMMARY OF THE WORKSHOP:
“MAJOR ACTIVITIES IN IETS AND IN
FINLAND ON INDUSTRIAL ENERGY
EFFICIENCY AND GHG MITIGATION S”

The following aspects and projects were presented:

- Industrial energy efficiency in Finland in the near future
- The EU-Morse project
- The SEED project
- The Decarbonate project
- Role of forest industry transformation in energy efficiency and reducing CO₂ emissions

The IETS ExCo provided information about all ongoing annexes. In addition, proposals for new activities regarding industrial symbiosis in a closed carbon cycle economy and roadmaps for industry were presented. [All presentations are available for download at the IETS website](#).

During the whole workshop there were questions and exchange of experiences from different sectors and countries. Chair concluded by hoping that there will be more collaboration between Finland and the IETS.