Industrial Energy-Related Technologies and Systems

A Technology Collaboration Programme established under the auspices of the International Energy Agency

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Introduction of Session 3  
Industrial Excess Heat
Industrial Excess Heat Presentations

Introduction to Industrial Excess Heat Recovery, 5Min.
Rene Hofmann, Head of the Institute of Energy Systems and Thermodynamics
TU Wien, Austria

Methods for identification and quantification of excess heat, 25Min.
Donald Olsen, Senior Research Associate
Lucerne University of Applied Sciences and Arts, Switzerland

Practical experiences and efficient mapping of process heat energy in industry, 25Min.
Fridolin Müller Holm, Viegand Maagøe A/S, Denmark

Impact on excess heat opportunities of future changes in industrial energy systems, 25Min.
Elin Svensson, Senior researcher
Chalmers University of Technology, division of Energy Technology, Sweden
Industrial Excess Heat Presentations

Felix Birkelbach, Post.Doc researcher at the Institute of Energy Systems and Thermodynamics
TU Wien, Austria

Towards high temperature (>500°C) excess heat recovery in Steel Industry, 25Min.
Akshay Bansal, Energy Program Leader, Process Energy & CO2
ArcelorMittal Global R&D, Maizières-les-Metz, France

Panel Discussion, 30Min.
• The role of excess heat in industry and industrial symbiosis
• Strategic process integration/intensification for future changes in industrial energy systems
• Ongoing projects at different TRL levels and systematical knowledge transfer
• Different approaches
Background – Task XV Description

✓ The Task takes on a **multi-disciplinary approach to the concept of excess heat recovery** integrated in industrial complexes, aiming at the optimization of energy efficiency in global terms…

✓ The **approach is based on industry needs and application**, combining the knowledge of industrial technologies with energy efficiency and cost-effectiveness…
Related Topics

**Combination of methods for excess heat identification & quantification**

The aim of this subtask is to create a network between groups working on and/or being interested in developing combinations of excess heat identification methods.

**Consequences for excess heat levels of future changes in industrial energy systems**

In this subtask, future changes in industrial energy systems that could possibly influence the amount of available excess heat and its temperature levels will be investigated.

**Operational aspects in industrial energy systems**

New concepts (online, predictive and holistic) for industrial energy supply systems and combining existing optimization approaches for unit commitment and heat exchanger network synthesis to increase the efficiency of the overall systems.
Topics Task XV Subtask 3

**Opportunity and risk assessment for excess heat projects**

In this subtask, approaches and experiences to overcome reasons why excess heat projects are not implemented as well as scientific projects identifying opportunities will be shared and discussed.

**Compilation of innovative excess heat projects**

In this subtask innovative excess heat project will be collected and shared amongst the participants. **Each group will make a contribution in one or more of the 4 subtasks above** and shall contribute with a description of **at least two innovative excess heat projects.**
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