

# Industry session (LC-SC3-EE-6 and LC-SC3-EE-8)

11:00 -11:05	Welcome and Introduction	Adrian PERES, European Commission, EASME
11:05 – 11.25	Policy background	Serena PONTOGLIO, European Commission, DG ENER, Unit C.3
11:25 – 11:35	Introduction to SPIRE cPPP	Istvan RITZ, European Commission, DG RTD, Unit D.2
11:35 – 11:55	LC-SC3-EE-6-2018-2019 Topic	Silvia VIVARELLI, European Commission, EASME
11:55 – 12:05	LC-SC3-EE-8-2018-2019 Topic	Filippo GASPARIN European Commission, EASME
12:05 – 12:30	Questions & Answers	Adrian PERES, European Commission, EASME



#H2020Energy

# Horizon 2020 Work Programme for Research & Innovation 2018-2020

LC-SC3-EE-6-2018-2019  
**Business case for  
industrial waste heat/cold  
recovery**

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Unit B1 H2020 Energy EASME

Research and  
Innovation



# LC-SC3-EE-6-2018-2019: Business cases for industrial waste heat/cold recovery

## Specific Challenge:

- Energy and fuels represent an important part of production costs in several Resource and Energy Intensive Industries
- Wide-scale deployment of industrial waste heat/cold recovery in industry hindered by lack of financial/economic justification and by limited industrial applicability
- Waste heat/cold can be a valuable resource for other industries and buildings/District Heating and Cooling operators



# LC-SC3-EE-6-2018: Business cases for industrial waste heat/cold recovery

## *Cost-benefit models for industrial waste heat/cold recovery*

### Scope:

- Develop **integrated cost-benefit simulation tools** that allow industrial sites/parks **to determine the most financial attractive option** for their recovered waste heat/cold and/or surplus renewable energy
- Consider characterization of processes and waste streams, barriers and opportunities (on the DHC side) and other variables (e.g., technology, infrastructure, administrative and legal costs, energy prices, demand)
- Simulation tools should be **flexible to allow different types of industrial sites/parks to use them**
- Validation through **demonstration in real operating conditions in industrial facilities** expected
- Include **business model development and dissemination and communication**

**TRL  
from  
4 to 8**

IA  
70%

# LC-SC3-EE-6-2018: Business cases for industrial waste heat/cold recovery

## *Cost-benefit models for industrial waste heat/cold recovery*

**EUR 3-4  
millions**

### Expected impacts:

- Accurate prediction and holistic modelling of industrial waste heat/cold and/or surplus renewable energy from industrial or other sources
- Better impact of various factors/variables on the cost-benefits
- Valorisation in assessments of costs-benefit of industrial heat/cold and/or surplus renewable energy from industrial or other sources
- Number of industrial sectors/sites/parks, public authorities, large private facilities and DHC operators aware, interested and supporting
- Primary energy savings triggered (GWh/year)
- Investments in sustainable energy triggered (million Euro)
- (If relevant and possible) Reduction of greenhouse gas emissions (tCO<sub>2</sub>eq/year) and/or air pollutants (kg/year)

# LC-SC3-EE-6-2019: Business case for industrial waste heat/cold recovery

## *Symbiosis in industrial parks and clusters – non-technological barriers*

CSA  
100%

### Scope (1/2):

Improve energy efficiency of industrial parks districts and clusters by unlocking market potential and supporting demand and offer of high-quality energy services by addressing **at least one of the following**:

- Customer/business level: Development and testing of **instruments facilitating actual implementation of energy cooperation**. Including capacity building of senior and executive management of companies and other related stakeholders.
- Service provider level: Development and testing of **replicable business models and service concepts for joint energy services**. Including capacity building of ESCOs and other 3<sup>rd</sup> party organisations.

# LC-SC3-EE-6-2019: Business case for industrial waste heat/cold recovery

## *Symbiosis in industrial parks and clusters – non-technological barriers*

CSA  
100%

### Scope (2/2):

Proposals should:

- Address **legal issues** in order to adapt regulatory and legal frameworks
- Take into account **sustainability in time** of the proposed symbiosis
- Ensure **applicability of solutions to other** industrial parks/business sectors

Strong **communication and dissemination** components needed.

# LC-SC3-EE-6-2019: Business case for industrial waste heat/cold recovery

## *Symbiosis in industrial parks and clusters – non-technological barriers*

### Expected impact:

- Primary energy savings triggered (GWh/year)
- Investments in sustainable energy triggered (million Euro)
- Number of plant sites (within one industrial park) and number of industrial parks committed to energy cooperation
- Number of relevant stakeholders aware of and/or interested in implementing joint energy services
- Number of policies and legal frameworks created and/or adapted to facilitate energy cooperation

**EUR 1-2  
million**





## Lessons learned from previous Calls

- Respond to the topic and have a clear focus!
- Actively involve relevant industries
- TRL level as requested for topic
- Concrete implementation in industry expected
- Substantiate proposed impacts with adequate baselines, assumptions and calculations
- Proposed impacts to be credibly deriving from proposed activities
- Sustainability in time and replication potential to be demonstrated

# Thank you!

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