Smart Finance

Anette JAHN
Head of Sector
EASME, Unit B1 – H2020 Energy
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:15-13:20</td>
<td>Welcome</td>
<td>Anette JAHN, EASME</td>
</tr>
<tr>
<td>13:20-13:30</td>
<td>Policy framework</td>
<td>Diana BARGLAZAN, DG ENERGY</td>
</tr>
<tr>
<td>13:30-13:55</td>
<td>B4E-11-2020 Financing for energy efficiency investments - Smart Finance for Smart Buildings (scope a and b)</td>
<td>Björn ZAPFEL, Kamila PAQUEL, EASME</td>
</tr>
<tr>
<td>13:55-14:05</td>
<td>B4E-12-2020 National roundtables to implement the Smart Finance for Smart Buildings initiative</td>
<td>Kamila PAQUEL, EASME</td>
</tr>
<tr>
<td>14:05-14:15</td>
<td>B4E-13-2020 Aggregation – Project Development Assistance</td>
<td>Martin EIBL, EASME</td>
</tr>
<tr>
<td>14:15-14:30</td>
<td>Q&amp;A</td>
<td>Anette JAHN, EASME</td>
</tr>
</tbody>
</table>
Open your browser

Go to slido.com

Join the event #H2020Energy
LC-SC3-B4E-11-2020 Financing for energy efficiency investments - Smart Finance for Smart Buildings

Kamila PAQUEL, Project Adviser
Björn ZAPFEL, Senior Project Adviser

Executive Agency for Small and Medium-sized Enterprises (EASME)
sli.do rooms

- Building Decarbonisation
- Consumers and Services
- Smart Buildings & Buildings Data
- **Smart Finance**
- Energy-efficient ICT
- Policy Support for Public Authorities

#H2020Energy
<table>
<thead>
<tr>
<th>Topic code</th>
<th>Keywords</th>
<th>Instrument</th>
<th>Total budget</th>
<th>~ Budget / project</th>
</tr>
</thead>
<tbody>
<tr>
<td>B4E-8</td>
<td>Heating and hot water production, multi-apartment residential buildings</td>
<td>IA</td>
<td>7 M€</td>
<td>2-2.5 M€</td>
</tr>
<tr>
<td>B4E-9</td>
<td>Coordination of European smart buildings innovation community</td>
<td>CSA</td>
<td>1.5 M€</td>
<td>1-1.5 M€</td>
</tr>
<tr>
<td>B4E-10</td>
<td>Self-assessment and self-optimisation of buildings and appliances</td>
<td>IA</td>
<td>6 M€</td>
<td>3-6 M€</td>
</tr>
<tr>
<td>B4E-11</td>
<td>Mainstreaming energy efficiency finance, Innovative financing schemes for energy efficiency investments</td>
<td>CSA</td>
<td>16 M€*</td>
<td>1-1.5 M€</td>
</tr>
<tr>
<td>B4E-12</td>
<td>National roundtables to implement the Smart Finance for Smart Buildings initiative</td>
<td>CSA</td>
<td>3 M€</td>
<td>0.5-1.5 M€</td>
</tr>
<tr>
<td>B4E-13</td>
<td>Project Development Assistance</td>
<td>CSA</td>
<td></td>
<td>0.5-1.5 M€</td>
</tr>
<tr>
<td>B4E-14</td>
<td>Smart energy services concepts</td>
<td>CSA</td>
<td>6 M€</td>
<td>1-2 M€</td>
</tr>
</tbody>
</table>

**CALL**

**Opening:** 05.03.2020  
**Deadline:** 10.09.2020  

**Conditions of eligibility and admissibility B4E-11:**
- at least 3 legal entities shall participate in an action  
- each of the 3 entities shall be established in a different Member State or Associated Country
Challenge

• Mobilise private finance also through capital markets
• Gather evidence in form of statistical data on energy and cost savings as well as other benefits
• Simplify transactions through aggregation and standardisation
• Set up innovative financing schemes at regional and national levels
• Improve common understanding of the challenge among the stakeholders (e.g. public authorities, finance providers, private project developers)

=> "Smart Financing for Smart Buildings" initiative
=> Sustainable Energy Investment Forums
Mainstreaming energy efficiency finance
Scope (1/2)

• Development, demonstration and promotion of frameworks for the standardisation, aggregation and benchmarking of sustainable energy investments
  • E.g. labelling schemes, project rating methodologies and risk assessment tools, standardised legal and financial structures of assets

• Capacity building for banks and investors at the national and local level, in particular on underwriting sustainable energy investments

• Gathering, processing and disclosing large-scale data on actual financial performance of energy efficiency investments, in order to create a track record for energy efficiency in different sectors
  • Links to the work of Energy Efficiency Financial Institutions Group including the De-risking Energy Efficiency Platform and the Sustainable Finance initiative
Scope (2/2)

• Further integration of non-energy benefits in project valuation, in particular in the building sector, leading to evolution of existing financial products or creation of new targeted products

• Targeting institutional investors (e.g. public pension schemes) in order to increase the share of their funds invested in energy efficiency, or to develop specific funds investment products
  • Supporting the integration of energy efficiency in portfolio management strategies for institutional investors and/or fund managers, including through re-definition of fiduciary duties

• Exploring the impact of revised risk ratings and requirements for energy efficiency on financial regulations (Basel III, Solvency II)
Expected impact

- Number of **financial institutions** and other stakeholders reached as well as their potential volume of investment concerned;

- **Frameworks, standardisation, benchmarking, standardised descriptions** and **data evidence** of financial returns of energy efficiency investments agreed and accepted by the market;

- Higher **allocation of institutional investments** to energy efficiency; standardisation of assets enabling **securitisation**; development of a **secondary market** for energy efficiency assets (in million € of investment within 5 years after the end of the project);

- **Investments** in sustainable energy triggered by the project (million €).

- Primary **energy savings** triggered by the project (in GWh/year)
Relevant Horizon 2020 projects

Two projects: ICPEU and I3CP:

- Increase investor confidence and reduce transaction costs through standardisation
- Develop together with the finance sector protocols for process and data management in:
  - Building energy retrofit projects (ICPEU)
  - Industry, street lighting and district heating (I3CP)
- Replicate an US initiative in EU countries.

#H2020Energy
Relevant Horizon 2020 projects

Two projects: Energy Efficiency Mortgage action plan (EeMAP) and data protocol (EdDaPP)

- create a standardised “energy efficient mortgage”, for building owners to improve the energy efficiency or acquire an already energy efficient property by way of preferential financing linked to the mortgage
  - based on 2 assumptions:
    - a pilot phase with 45 banks
    - definition of energy efficient mortgage
    - granular, standardised data collection
    - progress in identification of green assets attractive on capital markets

Retrofitting impacts positively on property value ensuring wealth conservation & loss mitigation by preventing “brown discount”

EE leads to a reduction in the impact of energy costs income, reducing borrowers’ probability of default

#H2020Energy
Relevant Horizon 2020 projects

- **SEAF** – Sustainable Energy Assessment Framework and LAUNCH:
  - IT based framework for valuation and benchmarking of sustainable energy projects (energy efficiency, demand response, distributed renewable generation etc.) reducing transaction costs and risks

- **REVALUE** - developing standards and valuation techniques that integrate energy efficiency performance into residential property valuation

- **QUALITEE** - establishing 8 national quality certification frameworks for energy efficiency services, and developing guidelines on EU-wide standardized criteria

- **SEI METRICS** - Sustainable Energy Investment Metrics enabling investors to measure the performance of their portfolios vis-à-vis climate and energy scenarios

- **CRREM** - the Carbon Risk Real Estate Monitor Project - developing a tool that will allow investors in the commercial real estate sector to analyse the risks of stranded assets due to low energy performance and to reallocate investment into more energy efficient buildings
Innovative financing schemes for energy efficiency investment
Scope

- **Development or replication and implementation of innovative financing schemes for EE investments**
  - Various financing models/schemes
  - Different organisation types/ownership structures
  - Complementarity to already available funding
  - Provision of finance and structuring of demand (regional/national level)
  - Targeting specific areas (e.g. energy-intensive industries, buildings etc.)
  - Tailored and innovative for the targeted regions and market segments
  - Demonstration of market potential, as well as business case and financial viability (including investment sizes targeted, expected savings, transaction and management costs, expected returns etc.)
Scope (cont.)

- **Exemplary financing schemes**
  - Dedicated credit lines
  - Guarantee facilities
  - Factoring/forfaiting schemes
  - On-bill (e.g. utility-financed) or on-tax financing schemes
  - Citizen financing (e.g. crowd-funding) for EE
  - Models for deep renovation of buildings (property and rental market)
  - Schemes for different industry sectors and cross-sectorial initiatives
  - Solutions integrating existing market-based instruments relevant for EE (e.g. carbon finance instruments, including those under the EU ETS; EE obligations, incl. white certificates etc.)
  - Schemes based on project aggregators/clearing houses at regional/national level (project development support; matching demand & supply of EE finance)
Scope (cont.)

- Set-up of new innovative, operational financing schemes
- Replication of previously successful solutions (e.g. developed/implemented under various PDA facilities, incl. ELENA of EIB)
- Establishment of regional/national aggregators able to develop large (standardized) project pipelines

Clear action plan
Expected impact

- Delivery of **innovative financing schemes** that are **operational** and **ready to finance** EE investments
- **Regional/national aggregators** with demonstrated/traceable capacity to set up large-scale pipeline of (standardized) sustainable energy investments *(in terms of number of and/or amount of investment)*
- **Investments in sustainable energy** triggered by the project *(in million Euro)*
- **Primary energy savings** triggered by the project *(in GWh/year)*
- **Additional positive effects** (reduction of GHGs/air pollutants)
Relevant Horizon 2020 projects

**CITYnvest**
- Introduction of **innovative financing schemes** (revolving funds, EPC, third party financing, cooperative models etc.) in **3 pilot regions** (BE, BG, ES)
- **Analysis of models** (opportunities and barriers)
- **Large-scale capacity building** and training (for public authorities)
- **Web-based portal** for practical guidance and match-making
- [http://www.citynvest.eu/](http://www.citynvest.eu/)

**TrustEE**
- **Forfaiting fund/securitisation vehicle** focused on industrial EE
- **Standardised** project assessment/development platform
- **Third Party Financing** – institutional investors
- [https://www.trust-ee.eu/](https://www.trust-ee.eu/)
Relevant Horizon 2020 projects (cont.)

**ESI Europe**
- **Energy savings insurance** mechanism for SMEs
- Simplified independent validation/verification
- Standardised contractual arrangements
- [https://www.esi-europe.org/](https://www.esi-europe.org/)

**EuroPACE**
- **On-tax financing mechanism** for energy renovations
- **Linking debt to the property** rather than to the owner and collecting debt repayment through property taxes
Relevant Horizon 2020 projects (cont.)

E-FIX

- **Capacity building** and roll-out of operational innovative financing schemes in Eastern Europe / Caucasus region
- **Energy performance contracting, crowdfunding, leasing**
Relevant Horizon 2020 projects (cont.)

Call 2018

- **CitizEE**: Integration of **crowdfunding and cooperative financing schemes** with **public financing instruments** and set-up of “Citizen Investment Platforms” to enable large-scale community-based building retrofit programs

- **Ren-on-Bill**: **On-bill financing schemes drawing on utility bills as repayment vehicle** to finance and scale up energy retrofit investments in residential buildings

- **SMARTER**: Replication and operation of **green homes / mortgage programme** with focus on Central and Eastern Europe

- **FinEERGo-Dom**: Replication of **forfaiting fund solution** buying receivables from EPC projects for deep retrofits in public/private buildings to enhance liquidity and (private) finance capacity of ESCOs

Project Development Assistance projects

- **Horizon 2020 PDA projects**
  

- **IEE (Intelligent Energy – Europe) PDA projects**:
  
Key proposal features

- Sufficiently clear, concrete and mature concept
  (e.g. financial solution(s) to be developed or tailored and replicated, sectors/investment types targeted etc.)

- Adequate market and barrier analysis

- Demonstrated response to real market needs and corresponding concrete (market) impact

- Clear economic/financial viability of the solution(s) envisaged

- Suitable addressing of market acceptance
  (e.g. involvement of and/or engagement strategies regarding key stakeholders and, in particular, financial sector actors)
For all questions:
EASME-Energy@ec.europa.eu

National Contact Points:
http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html
Thank you!

EU Funding & Tenders Portal

www.ec.europa.eu/research/participants
LC-SC3-B4E-12-2020 National roundtables to implement the Smart Finance for Smart Buildings initiative

Kamila Paquel
Project Adviser
EASME B1 Energy

#H2020Energy
info days
<table>
<thead>
<tr>
<th>Topic code</th>
<th>Keywords</th>
<th>Instrument</th>
<th>Total budget</th>
<th>~ Budget / project</th>
</tr>
</thead>
<tbody>
<tr>
<td>B4E-8</td>
<td>Heating and hot water production, multi-apartment residential buildings</td>
<td>IA</td>
<td>7 M€</td>
<td>2-2.5 M€</td>
</tr>
<tr>
<td>B4E-9</td>
<td>Coordination of European smart buildings innovation community</td>
<td>CSA</td>
<td>1.5 M€</td>
<td>1-1.5 M€</td>
</tr>
<tr>
<td>B4E-10</td>
<td>Self-assessment and self-optimisation of buildings and appliances</td>
<td>IA</td>
<td>6 M€</td>
<td>3-6 M€</td>
</tr>
<tr>
<td>B4E-11</td>
<td>Mainstreaming energy efficiency finance, Innovative financing schemes for energy efficiency investments</td>
<td>CSA</td>
<td>16 M€*</td>
<td>1-1.5 M€</td>
</tr>
<tr>
<td>B4E-13</td>
<td>Project Development Assistance</td>
<td>CSA</td>
<td></td>
<td>0.5-1.5 M€</td>
</tr>
<tr>
<td>B4E-12</td>
<td>National roundtables to implement the Smart Finance for Smart Buildings initiative</td>
<td>CSA</td>
<td>3 M€</td>
<td>0.5-1.5 M€</td>
</tr>
<tr>
<td>B4E-14</td>
<td>Smart energy services concepts</td>
<td>CSA</td>
<td>6 M€</td>
<td>1-2 M€</td>
</tr>
</tbody>
</table>
Challenge

• "Smart Financing for Smart Buildings" initiative
  • More effective use of public funding
    • Increased impact investment by private investors
  • Aggregation and assistance for project development
    • High transaction costs
  • De-risking
    • Lack of data on actual energy savings and non-energy benefits

• Energy Efficiency Financial Institutions Group

• Sustainable Finance initiative

#H2020Energy
Scope

• setting up of **national roundtables** focused on energy efficiency investment, as permanent multilateral discussion forums gathering the relevant stakeholders, including:
  – government,
  – local and regional authorities,
  – financial sector,
  – ESCOs,
  – homeowners,
  – industry sector,
  – construction sector
  – SME sector

• focus on existing **private and public buildings, industry and SME’s**; but could also include renovation of street lighting, district heating and transport infrastructures.

• **energy efficiency measures** + integrated renewable sources
Scope

• roundtables should (among others):
  – analyse the possibility to upscale existing best practices from the national and European level,
  – develop strategies, roadmaps and action plans,
  – propose improvements in the national policy frameworks and measures, and follow their implementation,
  – develop jointly template documents and contracts leading to a better functioning of the market,
  – act as a forum where all stakeholders can learn from successful market initiatives, and can provide input into the policy making process

• Proposals should build on the activities of the Sustainable Energy Investment Forums initiative

• Proposals involving only one country are eligible; however, they should include a small share of activities to exchange with similar roundtables across Europe; those exchanges will be coordinated by the Commission services
Impact

- Establishment of national energy efficiency investment roundtables;
- Number of national / regional policy documents resulting from the roundtables;
- Number of key stakeholders involved in the roundtables, in particular from the financial sector;
- Investments in sustainable energy triggered by the project (in million Euro);
- Primary energy savings triggered by the project (in GWh/year).
Relevant initiatives and projects

- **Sustainable Energy Investment Forums**
- 'Financing platforms' H2020 projects:
  - **SEFIPA**: Sustainable Energy Financing Platform in Austria
    - Including a “Finance Lab” events
  - **ENERINVEST**: Spanish Sustainable Energy financing Platform
    - Including tailored events and workshops
  - **BUILDINTEREST**: Improving the attractiveness of investments in energy efficiency and sustainability in buildings
    - Financing platforms creating a structural dialogue in NL, FR, and FR
  - **RESFARM**: Developing and implementing financial instruments for the mobilisation of investments in renewable energy in the agrarian sector

#H2020Energy
Relevant initiatives and projects

- **Sustainable Energy Investment Forums**
  - Launched in 2015 with the aim of enhancing the capacity of and co-operation between public and private stakeholders to develop large-scale investment programmes and financing schemes.
  - A series of **public conferences, national roundtable discussions and webinars**, SEI Forums have engaged a wide range of representatives from the financial sector, public authorities, energy services suppliers and other stakeholders involved in delivering investments in sustainable energy at EU and national levels.

#H2020Energy
SEI Forums events
13 EU Member States hosted national and regional events so far

- Bulgaria
- Czech Republic
- Denmark
- France
- Germany
- Greece
- Ireland
- Italy
- Latvia
- Malta
- Poland
- Romania
- Spain

Host country
- Public conference (PC)
- PC + I Roundtable (RT)
- PC + II Roundtable (RT)
- Energy Efficiency Market Place (>EU-28)
LC-SC3-B4E-13-2020 Aggregation – Project Development Assistance

Martin EIBL
Senior Project Advisor
H2020 Energy Unit - EASME
'Smart Finance for Smart Buildings' Initiative

- More effective use of public funds
- Attracting private finance through financial instruments and innovative business models
- Project development assistance, advisory support tools and aggregation of small-scale projects
- De-risking the perception of energy efficiency investments
- Supporting the project pipeline at EU and local level
- Understanding the real risks and benefits related to energy efficiency investments

#H2020Energy
Aggregation – Project Development Assistance

- **Build** technical, economic and legal expertise needed for project development
- **Develop organisational innovations** and minimise transaction costs
- High degree of **replicability**

- Remove legal, administrative and other market barriers
- **Aggregate** (pooling, bundling) projects to reach critical size
- Mobilize **private finance**
H2020 PDA: main features

• Sectors targeted:
  – Existing public and private buildings
  – Industry and services
  – Urban transport
  – Existing infrastructures (street lighting, water/wastewater)

• Investments launched before end of the action!

• 1:15 leverage ratio

• EU contribution: 100%

• Call opens on 05 March 2020

Deadline: 10 September 2020
H2020 PDA – Who do we target?

• Public and private project promoters
  – public authorities or their groupings,
  – public/private infrastructure operators and bodies,
  – energy service companies,
  – retail chains,
  – large property owners and
  – services/industry

• Proposals from 1 single entity are eligible!
H2020 PDA – Organisational innovation

- **mobilisation of investment programme**: bundling, pooling, framework contracts, stakeholder engagement, community finance...

- **financial engineering**: alternatives to traditional financing (by public authorities: direct financing or subsidies)
  - Soft loans; Energy performance contracting (with third-party financing); Public ESCO’s; Investment funds on energy efficiency (Jessica / ERDF...); on-bill or on-tax finance; or anything relevant!

- Innovation can also mean: **new target sectors, higher levels of ambition** (e.g. EPC’s for low-energy retrofitting of buildings)
2020 TOGETHER
Refurbishment of public buildings and street lighting in the Piedmont Region (IT) - Completed

- Triggered EUR 12.5 million of energy investments
  - Change & management of heating systems in 118 buildings owned by the city of Torino
  - Energy refurbishment of 18 public buildings owned by 5 small municipalities
  - Bundling of 3,000 lighting points in the city of Torino and 6 small municipalities
- Achieved leverage factor of 1:26

- Innovation
  - "Joint Procurement" of innovative Energy Performance Contracts (EPCs)
  - Third Party Finance involving an ESCO and financial institutions

- Replication potential
  - Joint procurement and EPC in public buildings
  - Make PPP and Third Party Investment a common practice
**Posit’if**

Refurbishment of multi-family buildings in Ile-de-France Region - Completed

- Pilot of energy performance contracting in condominiums + guaranteed savings
- 3100+ units renovated → €60m investment by 2018
- Deep renovation of min. 40% on, average 48% achieved
- 1000 jobs created/maintained
- EIB Loan for €100m backed by EFSI (European Fund for Strategic Investment)

- Organisational innovation: One-stop-shop to design, implement, finance, monitor for home owners
- Legal innovation: project changed national legislation to allow public ESCOs to offer Third-Party-Financing]
- Replication: 6 out of 13 French regions have created a public-private TPF company

#H2020Energy
Key features for a successful PDA proposal

• **Adequate starting point**
  with identified targeted investments, needs and market barriers and commitment from key stakeholders.

• **Clear concept**
  in particular on the steps to reach the planned investment and also on the financial engineering (e.g. alternatives to traditional financing such as Energy Performance Contracting).
  Pay attention to procurement processes and build them properly in your proposed work plan.

• **Solid impact**
  based on credible quantitative and qualitative estimations, incl. sound baseline, realistic assumptions and clear effort to monitor and report.

• **Proven engagement of the final beneficiaries of the investment**
  at proposal stage and during the whole duration of the action.

#H2020Energy
42 PDA projects

• supported under Horizon 2020 since 2014
  • 2014 PDA projects: http://europa.eu/!Mj83GK (EE-11-2014)
  • 2018 PDA projects: https://europa.eu/!Ut36jr (EE-11-2018)

• supported under Intelligent Energy Europe from 2011-2013
More information

• H2020 participant portal


• Questions & Answers: EASME-Energy@ec.europa.eu

#H2020Energy
Thank you!

#H2020Energy

EU Funding & Tenders Portal

www.ec.europa.eu/research/participants