Energy Efficiency – the first fuel for the EU Economy

Challenge:
“How to Drive more Energy Efficiency Investments in Bulgaria”

EEFIG National Process – Summary based upon EEFIG work 2014-2015

Presentation used to Introduce EEFIG and its Conclusions in MS.

Presented by
Peter Sweatman, CEO Climate Strategy & EEFIG Rapporteur
Who and What is EEFIG?

- Convened by EU Commission and UNEP FI
- Voluntary participation of 120 people representing 100 organizations
- Specific mandate
- 12x 1-day meetings over 18 months, 3x surveys and 2x reports

Active input of some 120 expert participants (8,000 hours)
EEFIG’s 120 Participants Represent over 100 Organizations

ABB
Agentschap NL
Allianz Global Investors
Europe GmbH
Allianz Climate Solutions
Allianz Real Estate
ASN Bank
Aurubis Belgium N.V./S.A.
Aviva Investors
Bank Nederlandse Gemeenten (BNG)
Bank of Valetta p.l.c.
Banque Public d’Investissement
Belesco asbl
Belfius
Bloomberg New Energy Finance
BNG Bank
BNP Paribas Asset Management
BNP Paribas Investment Partners
Buildings Performance Institute Europe (BPIE)
Caisse des Dépôts et Consignations
Cassa Depositi e Prestiti
CDC Climat
CECIMO
Cembureau
Citi Handlowy
Bank Handlowy w Warszawie S.A.
Climate Strategy & Partners
Cogen Europe
Credit Suisse Securities (Europe) Limited
Denef
Deutsche Bank
DNV GL
E3G
EASME

European Commission (EC)
Econoler
EDF FENICE
EEP – Institute for Energy Efficiency in Production, University of Stuttgart
Energy Efficiency in Industrial Processes (EEIP)
EFIEES
Efinovia Europe
EIIF
Emerson Electric Co.
European Association of Energy Service Companies (eu.esco)
European Builders Confederation (EBC)
EuroACE
Eurobank Ergasias SA
Eurochambres
European Association of Public Banks (EAPB)
European Bank for Reconstruction and Development (EBRD)
European Climate Foundation
European Investment Bank (EIB)
European Property Federation
FIEC (European Construction Industry Federation)
Green Investment Bank
HBOR – Croatian Bank for Reconstruction and Development
Hermes Investment Management
Honeywell
Huber Dixon
Hungarian Development Bank (MFB)
IFIEC (International Federation of Industrial Energy Consumers)
ING Commercial Banking
International Energy Agency

Institutional Investors Group on Climate Change (IIGCC)
Investor Confidence Project
IPEEC
KfW Bankengruppe
Munich Re
Network of European Financial Institutions for SMEs (NEFI)
NRW Bank
Orgalime
Parhelion
Polish Bank Association
Polish National Fund for Environmental Protection and Water Management
RICS
Schneider Electric
Siemens
Siemens Financial Services GmbH
Societe Generale
SPIRE
Spire2030
Susi Partners
Sustainable Development Capital Limited
Tera srl
The CO-Firm GmbH
The Energy Managers
Turboden
UNEP Finance Initiative (UNEP FI)
Unicredit
UNIDO - United Nations Industrial Development Organization
Union Européenne de l’Artisanat et des Petites et Moyennes Entreprises – UEAPME
Linkoping University
World Business Council for Sustainable Development
EEFIG MANDATE: How to Increase the Flow of Energy Efficiency Investments in EU

The Energy Efficiency Financial Institution Group ("EEFIG") was established to determine how to overcome the well documented challenges to obtaining long-term financing for energy efficiency.

EEFIG’s Mandate

1. What are the most imminent challenges that must be overcome?

2. Who would be the right party to address them?

3. What should the European Commission/ EU do?
Three Keys: Policies to Drive Demand/Reduce Uncertainty, Simple FIs and Removing Blocks

Buildings and Corporate sectors are very different Yet...

EEFIG participants identified cross-cutting themes which provide a framework to describe challenges facing energy efficiency investing in both EU Buildings and Industry

Imminent Challenges

1. Driving Demand
2. Managing Uncertainty
3. Distribution and Aggregation
4. Blending Grants and Loans
5. Accounting Treatment
6. Horizon Period / Optimal Scope
7. Financial Regulatory Issues
Key Messages:
Mobilizing Energy Efficiency Investments in EU Buildings
Different Strategies for Different Segments

**High Level**

Europe’s Energy Efficiency and GHG Targets will not be reached without concerted effort from policy-markers and markets participants.

EU Buildings renovation rate and depth must increase by 2.5x by 2020 to secure 2050 targets.

Private Investments into EU Buildings must increase by x5.

**Segments**

- Commercial
- Public
- Public-Rental
- Owner Occupied
- Private Rental

**Outputs**

- **Regulatory Environment**
  - Pragmatic
  - Predictable
  - Long-term
  - Supportive

- **Behaviour Change**
  Among sector stakeholders

- **Facilitated by**
  - Public Funds
Policy-led and Markets-led Approaches to Deliver “Smart Finance for Smart Buildings”

**Policy-led Approaches**

- Development of Standards and a Common Investment Language
- Improvement of Buildings Certification and Energy Performance Certificates
- Open Source EU Buildings Energy Database
- Industry and Finance supported National Buildings Renovation Roadmaps
- Optimize Use of EU Structural and Investment Funds for Energy Efficiency Investments in Buildings

**Market-led Approaches**

- Common and Standard Underwriting and Investment Procedures
- Linking impact of building energy performance with investment performance
- More Proactive Engagement and Continuous Improvement and Usage of Energy Performance Certificates (EPCs) from Financial Institutions
- “Operational” Energy Performance Database
- Project Ratings
- Life cycle portfolio-wide sustainability programmes
“Smart Finance” or Simple Finance? Or to UP-SCALE both….

EEFIG Participants Identified
16x EE Financial Instruments

- Widely used to fund energy efficiency investments directly or indirectly

7x “Mature” Instruments
- “Mature” Instruments

9x “Emerging” Instruments
- “Emerging” Instruments

- Are newer but have a varying potential to increase energy efficiency investing in EU buildings

Highlights from EEFIG’s Survey, Working Group & Discussions

1. Dedicated credit lines have the widest applicability in all buildings segments

2. Energy Performance Contracting is growing in commercial and public buildings

3. Risk-sharing facilities are proving very useful

4. EE investing through direct and equity investments in real estate and infrastructure is important

5. Subordinated loans and leasing are presently “niche” instruments for buildings EE

6. Good potential for on-bill repayment and on-tax finance (PACE)

7. EE funds and Energy Service Agreements show good potential only in commercial and public buildings
What Member States can do to Mobilize more Energy Efficiency Investments… *(5x Elements)*

**Buildings**

- **PUSH**: Ensure *effective transposition and local enforcement* of EU Directives and increase policy focus on *reducing wasted energy*
- **PULL**: Address need for *high quality buildings performance and energy data* plus *standard investment procedures*
- **BUSINESS MODEL**: Scale-up *replicable energy efficiency investment programmes* and reduce their transaction costs for customers
- **TECHNICAL**: Initiate review of *accounting, reporting and procurement hurdles* for public buildings and improve *standard procurement procedures*
- **FINANCE**: Link optimal *funding sources to National Buildings Renovation Strategies* *(EED Art. 4).*
Key Method:
EEFIG Tool to Assess Drivers for Investment Demand and Supply
EEFIG Tool Methodology Overview

Methodology

- **DEFINE DRIVERS**: EEFIG identified 25 EEI Demand drivers and 23 EEI Supply Drivers
- **DEFINE SEGMENTS**: EEFIG defined 5x Buildings Segments
- **EXPERT SURVEY**: Expert survey allowed experts to score different drivers and make structured comments as to their views of the ways to address these
- **RESULTS INTERPRETATION**: Survey results are presented back to the expert group for that group’s interpretations and consensus conclusions
- **REPORT**: Final report produced which summarises process and results plus interpretation.
### Table 3: EEFIG ranking of key drivers affecting supply of energy efficiency investment by market segment.

<table>
<thead>
<tr>
<th>Buildings Sector</th>
<th>Commercial</th>
<th>Public</th>
<th>Public Rental</th>
<th>Owner Occupied</th>
<th>Private Rental</th>
<th>Average Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardization</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>Regulatory Stability</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2.8</td>
</tr>
<tr>
<td>Increased Investor Confidence &amp; Change in Risk Perception</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>4.6</td>
</tr>
<tr>
<td>Transaction costs / simplicity</td>
<td>7</td>
<td>10</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>5.2</td>
</tr>
<tr>
<td>Measurement, Reporting &amp; Verification (MRV) and Quality Assurance</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>10</td>
<td>8</td>
<td>5.6</td>
</tr>
<tr>
<td>Lender’s approach to risk assessment (non-recourse project financing vs. Borrower-based credit recourse)</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Risk-return targets</td>
<td>6</td>
<td>11</td>
<td>9</td>
<td>7</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Use of European Structural &amp; Investment Funds</td>
<td>18</td>
<td>3</td>
<td>3</td>
<td>11</td>
<td>9</td>
<td>8.8</td>
</tr>
<tr>
<td>Availability of Data</td>
<td>5</td>
<td>9</td>
<td>13</td>
<td>12</td>
<td>10</td>
<td>9.8</td>
</tr>
<tr>
<td>Price of energy</td>
<td>14</td>
<td>7</td>
<td>10</td>
<td>8</td>
<td>15</td>
<td>10.8</td>
</tr>
<tr>
<td>Aggregation Challenge</td>
<td>19</td>
<td>16</td>
<td>8</td>
<td>9</td>
<td>11</td>
<td>12.6</td>
</tr>
<tr>
<td>Buildings Regulation, Certification and Energy Performance Certificates</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>14</td>
<td>13</td>
<td>12.6</td>
</tr>
<tr>
<td>Definition and common understanding of the value of energy cost savings</td>
<td>12</td>
<td>8</td>
<td>15</td>
<td>17</td>
<td>18</td>
<td>14</td>
</tr>
</tbody>
</table>
Using Graphs to Understand the “Stories in the Data”
Example of Conclusions in Demand Drivers for Energy Efficiency Investments in Buildings

**Strong Regulatory Framework with Effective Enforcement of Regulation**

**Only Demand Driver truly “Cross-cutting” across all Buildings Segments**

## Strong Drivers of Energy Efficiency Investment Demand:

<table>
<thead>
<tr>
<th>Public Buildings</th>
<th>Commercial &amp; Public Buildings</th>
<th>Commercial Buildings</th>
<th>Private Residential Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Rules guiding public authority accounting, procurement and reporting and facilitation</td>
<td>• Awareness of the opportunities at the key decision maker level</td>
<td>• Clear business case</td>
<td>• Transaction Costs / simplicity</td>
</tr>
<tr>
<td>• Technical assistance</td>
<td>• Buildings regulation, building certification and energy performance certificates</td>
<td>• Assured regulatory stability</td>
<td>• Individual owner payment capacity</td>
</tr>
<tr>
<td></td>
<td>• Standardization</td>
<td></td>
<td>• Awareness, communication and marketing</td>
</tr>
</tbody>
</table>
Example of Conclusions for Supply Drivers for Energy Efficiency Investments in Buildings

Strong Drivers of Energy Efficiency Investment Supply:

<table>
<thead>
<tr>
<th>Residential Buildings</th>
<th>Commercial &amp; Public Buildings</th>
<th>Commercial Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reduced transaction costs</td>
<td>• Measurement Reporting &amp; verification (MRV) combined with quality assurance</td>
<td>• Increased investor confidence</td>
</tr>
<tr>
<td>• On-bill repayment mechanisms</td>
<td></td>
<td>• Changes in risk perception</td>
</tr>
</tbody>
</table>

Top Drivers of the Supply of Energy Efficiency Investments

Standardisation + Regulatory Stability
EEFIG Local Timings (INSERT COUNTRY)

Timetable

- **DEFINE DRIVERS**: Meeting [1] Date [year]
- **DEFINE SEGMENTS**: Meeting [1] Date [year]
- **EXPERT SURVEY**: 1-2 month period between [DATE2] and [DATE3]
- **RESULTS INTERPRETATION**: Meeting [2] Date [year]
- **REPORT**: Meeting [2] Date [year] + 1-2 months
EEFIG’s 2015 report was successfully launched on February 26th

Report has been seen over 5,000 times

Key Headlines:

High level support for the EEFIG’s work is in evidence in Europe and internationally.

The Energy Collective, February 27th 2015

The report is a milestone, representing one of the most potent collaborations to date between the European Commission and institutional investors on how regulation can feed directly into long-term, green financing: in this case, energy efficiency in property and SMEs.

Responsible Investor, March 10th 2015

The report is worth taking seriously – because if the EU is to reap the potential dividends from improvements in energy efficiency, it will need a lot more investment than a (small) fraction of €315bn.

European Voice, March 11th 2015

The EEFIG called for energy efficiency projects to be given priority in the deployment of Juncker plan money.

Euroactive, March 13th 2015
“Energy efficiency is already the biggest source of “new” energy supply, but large untapped potential remains in Europe. Implementing the report’s recommendations can support economic growth and help tackle climate change at the same time.”

Felipe Calderón, Former President of Mexico and Chair of the Global Commission on the Economy and Climate

“Investing into energy efficiency measures in buildings, industry and in SMEs is fundamentally important for Europe. I will strive to ensure that energy efficiency investment financing is looked at in our forthcoming policies and that this Report will be used as inspiration for our further work.”

European Commission Vice President, Maroš Šefcovic

"Energy efficiency has played and continues to play a sizeable role in the development of the global economy. This is nowhere more evident than in financial markets where energy efficiency is establishing itself as an important segment. Policy makers and private markets need to work further to support this essential driver of energy efficiency investment.”

Maria van der Hoeven, Executive Director of IEA

“Only half of the estimated 60 -100 billion Euros annual investment required to achieve Europe’s 2020 energy efficiency targets in buildings is being met. The joint efforts by the EU and UNEP’s FI to build a healthy dialogue among stakeholders and disseminate know-how has the potential to unleash private investment to the scale required to meet future ambitions and obligations.“

Under Secretary-General of the United Nations and Executive Director of UNEP, Achim Steiner
Please visit www.eefig.org
Engage and join the conversation!

Users can access:

1. Latest EEFIG Report & supporting materials

   Energy Efficiency – the first fuel for the EU Economy
   How to drive new finance for energy efficiency investments

   FINAL REPORT
   covering Buildings, Industry and SMEs
   February 2015

2. Engage with the “Energy Efficiency De-risking Project”

   Become a user and/or become a data provider and engage in an expert dialogue which contributes to enhancement of the fundamentals of energy efficiency investments in the buildings and corporate sectors

3. Use the “EEFIG National” Tool & Database

   It relies on used a standardized method and process to engage with key expert stakeholders in Spain, France, Germany, Poland and Bulgaria over 12 months. Each country’s results can be found with a series of summaries as well as an interactive review of the EU data
Climate Strategy leads in Energy Efficiency Finance with 9 white papers written in the past 7 years and supporting international policy initiatives.

Climate Strategy understands the interdependent relationships between:
- Environment
- Business
- Society
- and Government

and their roles in guiding the global transition to a low carbon economy.

240 key note speeches and public conferences on the Transition to a Low Carbon Economy and 90+ press articles, Climate Strategy is working for a Climate Deal at COP21.

Follow us @ClimateSt

“Energy efficiency investing has a fundamental and beneficial role to play in the transition towards a more competitive, secure and sustainable energy system with an internal energy market at its core.”

Peter Sweatman CEO of Climate Strategy - EEFIG Launch Feb 26th 2015
EEFIG was supported by Climate Strategy and Partners (www.climatestrategy.com @ClimateSt) which was contracted to support the coordination and drafting of the EEFIG report, and supporting materials, on behalf of EEFIG and whose Chief Executive is group moderator, rapporteur and active participant in the group.

This document is a summary of the EEFIG Final Report prepared for the European Commission by the members and participants of the Energy Efficiency Financial Institutions Group ("EEFIG") as listed herein and represents a group consensus view. The views and opinions expressed herein are wholly those of EEFIG reached by consensus at the time of writing. The consensus view does not necessarily reflect, in its entirety, the individual view of the Commission nor any EEFIG member or participant nor should membership or participation in EEFIG bind any member or participant to the consensus views described here. EEFIG views and opinions are subject to change without notice. Neither EEFIG, the Commission, Climate Strategy or any individual member or participant of EEFIG may individually or collectively be held responsible for any use which may be made of the information contained herein. The examples and case studies described in this document have been provided by specific participants to EEFIG meetings and are based upon information gathered by these individuals; the references used to develop these illustrative examples (which are quoted) should always be considered as the most accurate and complete source of information. EEFIG members and participants note that many are specialists in either buildings or industrial energy efficiency and have therefore only provided input into the sections relevant to their specialist area.