

April / May 2021 - Newsletter

Dear readers,

In the era of the new normal, we are all in need of new solutions to battle the same old problems. The last year has, more than ever, made us aware that there are uncertainties that can change our lives and businesses in an instant.

As with every obstacle, there is a way to turn it into an opportunity – during great uncertainty, it becomes ever more important to focus on creating innovative solutions and building an agile community that can easily adapt to change.

IEECP was fortunate that our already online and international style of working proved to be a winner in this new normalcy. Additionally, in our projects, we strive to achieve innovation in several sustainability sectors. A few of our websites are now launched so we invite you to join us on the innovative path to a more sustainable future – use our available ideas, research, and findings to improve your policies, businesses, and everyday living.

Browse through the new websites to learn more about behavioural interventions for energy efficiency at home ([NUDGE](#)), bioenergy and communities ([BECoop](#)), energy vulnerability in the private rented sector ([ENPOR](#)), energy audits and EMS for SMEs ([DEESME](#)).

We are also happy to share to our friends working in European cities and regions that we won a project PROSPECT+, which is a succession of our successful project [PROSPECT](#).

There is already a PROSPECT alumni network connecting 100+ European cities and regions. Launching PROSPECT+ means that in the following four years there will be more opportunities for new cities to learn from their peers about innovative financing for sustainable policies.

Keep in touch and get to know us on our LinkedIn, Twitter and Facebook so that we can adapt to, and better prepare for the uncertainties together!

Kind regards,

Vlasis Oikonomou and the whole IEECP team

NEW PUBLICATIONS



PARIS REINFORCE releases seven new scientific publications!

- Doukas, H., & Nikas, A. (2021). Involve citizens in climate-policy modeling. *Nature*, **590**(7846), 389 ([link](#)).
- Galende-Sánchez, E., & Sorman, A. H. (2021). From consultation toward co-production in science and policy: A critical systematic review of participatory climate and energy initiatives. *Energy Research & Social Science*, **73**, 101907 ([link](#)).
- Giarola, S., Mittal, S., Vielle, M., Perdana, S., Campagnolo, L., Delpiazzi, E., Bui, H., Anger-Kraavi, A., Kolpakov, A., Sognnaes, I., Peters, G.P., Hawkes, A., Koberle, A., Grant, N., Gambhir, A., Nikas, A., Doukas, H., Moreno, J., & Van de Ven, D.J. (2021). Challenges in the harmonisation of global integrated assessment models: a comprehensive methodology to reduce model response heterogeneity. *Science of the Total Environment*, 146861 ([link](#)).
- Johansson, D. J., Azar, C., Lehtveer, M., & Peters, G. P. (2020). The role of negative carbon emissions in reaching the Paris climate targets: The impact of target formulation in integrated assessment models. *Environmental Research Letters*, **15**(12), 124024 ([link](#)).
- Lalas, D., Gakis, N., Mirasgedis, S., Georgopoulou, E., Sarafidis, Y., & Doukas, H. (2021). Energy and GHG Emissions Aspects of the COVID Impact in Greece. *Energies*, **14**(7), 1955 ([link](#)).
- Le Quéré, C., Peters, G. P., Friedlingstein, P., Andrew, R. M., Canadell, J. G., Davis, S. J., ... & Jones, M. W. (2021). Fossil CO₂ emissions in the post-COVID-19 era. *Nature Climate Change*, **11**(3), 197-199 ([link](#)).
- Yang, X., Pang, J., Teng, F., Gong, R., & Springer, C. (2021). The environmental co-benefit and economic impact of China's low-carbon pathways: Evidence from linking bottom-up and top-down models. *Renewable and Sustainable Energy Reviews*, **136**, 110438 ([link](#)).

Access them all on the PARIS REINFORCE [dedicated section](#).

The article "[Time for energy efficiency to be valued as a grid resource](#)" originally published as an eceec column in the context of the SENSEI project has been featured in the 2021 Spring



Double Issue of the [EU-China Energy Magazine](#), and translated to Chinese: "能效对于电网的资源价值仍被决策者低估". The English version of the publication features a modified version of the original eceee article titled "Policy-makers still undervalue Energy Efficiency as a grid resource".

REPORTS and COMMENTARIES

Transferring global experience of "efficiency first" to the EU

A New **enefirst** report screens various priority areas for implementing the energy efficiency first (E1st) principle and highlights the central role of national regulatory authorities in fostering such approaches. Discover more takeaways and [read the report](#).

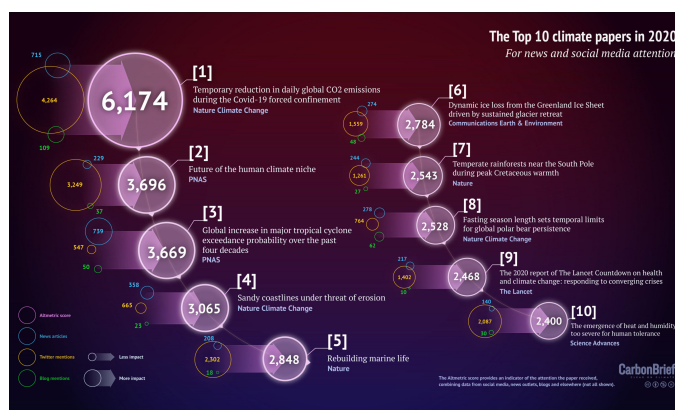


Green Finance Institute: Coalition for the Energy Efficiency of Buildings - Towards a protocol for metered energy savings in UK buildings

Establishing a UK-wide, standardised Metered Energy Savings protocol is a critical part of building a mainstream finance market for residential retrofitting. [This report, co-authored by H2020 SENSEI and ENSMOV partner RAP, recommends a new, standardised, industry-recognised framework for measuring real-time energy savings – based on the estimated amount of energy that would have been used in a specific building had an energy efficiency retrofit not taken place- that will allow homeowners, suppliers and funding sources to measure the effectiveness of residential retrofit works.](#) It is the results of over 20 Coalition for the Energy Efficiency of Buildings (CEEb) members working collaboratively to examine specific considerations for capturing metered energy savings in the UK, and outlining the various stakeholders to whom a robust protocol would be valuable and the different business models it could support. SENSEI contributed to the insights on capturing metered savings, drawing on the project review of Pay-for-Performance programmes pilots in the buildings sector. It also introduces results from the [H2020 ENSMOV project](#).

PARIS REINFORCE contributing to the top climate paper for 2020

[PARIS REINFORCE](#), along with the [Verify](#), [4C](#) and [eCoCO2](#) projects, contributed to and was acknowledged in the top climate paper of 2020, Corinne Le Quere et al.'s "Temporary reduction in daily global CO2 emissions during the COVID-19 forced confinement" published in [Nature](#) Climate Change on 19 May 2020, a testament to the relevance of EU-funded research!



First Report on Energy Poverty in the Private Rented Sector in Europe and related analysis

Dr. Stefan Bouzarovski (IEECP; the University of Manchester) and Manon Burbidge (the University of Manchester) show that fuel/energy poverty and vulnerability is increasing in the European private rented sector (PRS). Their [report and analysis](#), written for the [ENPOR](#) project, are the first scientific publications investigating energy poverty in the PRS.

The report assesses the barriers and drivers for increasing energy efficiency in privately rented homes, where the authors find that improving the efficiency of the PRS is not just a question of technical efficiency; it also involves complex social, economic and political challenges. There is also a synthesis of the best practices, policies and solutions which are being carried out around the world to implement energy efficiency improvements in the PRS, culminating in a conceptual framework

and recommendations. The authors stress that literature coverage is geographically uneven, concentrated in Western Europe, and conclude by **highlighting the multiple pathways for energy poverty alleviation in the PRS, including regulatory, financial, and social measures and argue in favour of the need for representation of different sector stakeholders involved in these pathways.**

Challenges of Energy Auditing and Energy Management

Following the first report that identifies needs and challenges for National Authorities in the implementation of Article 8 of the EU Energy Efficiency Directive, DEESME is working on more detailed Requirement-based report on best-practice for policies on energy audits, energy management and multiple-benefits led by Fraunhofer ISI. Based on the list of needs and challenges from Member States, this **second report seeks to lay the ground for developing proposal on how to respond to the identified challenges.** The review is a repository of practices for overcoming, the identified practices are evaluated against a set of criteria for the targeted countries, to offer the best solution for the specific Member States. The report will be available in May 2021 on [DEESME website](#).



Methods for the dynamic measurement and verification of energy savings - Beyond simple linear regression methods

This report aims at contributing to the advancement of the automated measurement and verification (M&V) methods (combining real-time data and predictive modelling methods) for energy efficiency, to produce: (a) a new Machine Learning tool to understand the characteristics of a building's energy consumption, and (b) continuous feedback on the most probable impact of an energy efficiency intervention. The report presents the main aspects of an M&V process (data requirements, metrics to evaluate a baseline energy consumption model, quantification methods), before digging to the state-of-play in terms of M&V 2.0 methods. It reviews existing models for predictive baseline modelling, further guides the implementation of dashboards and interactive visualizations for communicating insights regarding a building energy consumption dataset, and proposes a replicable workflow for M&V data preprocessing to validate the available input data, identify common and uncommon patterns in daily energy consumption, and develop the predictive features for training and testing the baseline energy consumption model. The report concludes that there is a lot to be gained from combining models with methods that aim at increasing the practitioners' understanding of a given building's energy consumption characteristics. The relevant notebooks, as well as all the open source functionality that accompanies this report can be found in the GitHub repository at <https://github.com/hebes-io/eensight>.

The drivers of the value of energy efficiency as an energy resource

The ongoing EU goal for the decarbonisation of the power system is leading to decentralized and fluctuating solar- and wind-driven power generation substituting more and more power from dispatchable but fossil-fuelled power plants. This results to increased variability of supply and to power system operators requiring more options to efficiently handle the stability and adequacy challenges of the power grid. While the most suggested option is demand flexibility, SENSEI examines the role that energy efficiency can play in a renewables-based electricity system.



This report introduces the concept of *load modifying resource* applied to energy efficiency: a resource not seen or optimized by the power or capacity market, that persistently modifies the fundamental system load shape, preferably in ways that harmonize with the system operator's grid operations. The report aims at quantifying the potential value of energy efficiency as a load modifying resource, to determine when energy efficiency would be more valuable to the power system, as well as how it can be evaluated in comparison to alternative demand-side options such as demand flexibility and electricity storage.

Climate injustice adds more inequalities

On March 2021 Haris Doukas and Alexandros Nikas from the H2020 PARIS REINFORCE project team along with Ioannis Tsiouridis (Technical University of Mombasa) published a [commentary in the E-MC² Journal](#), addressing the fundamental issue of climate justice, as the least responsible for climate change are those to suffer its worst consequences. Climate crisis has resulted in "triple injustice", since it is usually the most vulnerable that are affected by it, who are also the least responsible for its creation, and whose already unlivable conditions are made even worse by climate change phenomena.

SURVEYS, CALLS for PARTICIPATION AND MORE

Help ENPOR review the factors preventing investment in the energy efficiency in the PRS (Private-Rented Sector)

We would like to invite you to complete a quick survey for the [ENPOR](#) project! Do you work with housing, energy poverty, energy efficiency, or other similar fields and have knowledge about the **factors preventing investments in energy efficiency in the PRS**? Then please share your knowledge with ENPOR by **participating in this [survey](#)** until the **21st of April**!

The survey should take 5-10 minutes to complete and your answers will be used to inform a review of driving forces and factors that prevent investment in the energy efficiency of dwellings in the private rented sector in Europe.



Participate in a Perception survey!

BECoop finds it important to listen to the local perceptions of bioenergy communities of as many locals as possible. This is why, next to the local

event, we created a survey to explore your opinions and experiences with community bioenergy. The findings will help us signal key factors and dimensions of the bioenergy market and how to uptake its utilisation.

Share, like, and devote a few minutes to help us with your honest opinion:

Survey is available in the following languages:

[Greek](#), [Italian](#), [Polish](#), [Spanish](#) and [Basque](#) ...and English translation is available each version!

Support behavioural policies by completing the NUDGE survey!

This survey supports NUDGE in creating consumer profiles and capturing consumer perceptions of own behaviour by considering a variety of psychological and contextual variables (household size and composition, economic incentives, technologies in use).

The survey's purpose is to understand how we consume and save energy at home, gathering the following aspects:

- Consumer behaviour with respect to the energy consumption
- Intentions and perceptions with regard to the adoption of measures that enhance energy efficiency
- Household characteristics, building characteristics, and level of environmental conscience

The [NUDGE survey](#) is available until end of May in 14 languages, including Greek, English, French, German, Dutch, Portuguese, Romanian, Italian, Croatian, Latvian, Lithuanian, Slovakian, Slovenian, Spanish.

This questionnaire addresses all European consumers of any gender, age, social status, etc. It is written in a clear and simple way so that anyone can answer the questions reflecting on their daily habits and their awareness about energy consumption and saving.

For more information about the NUDGE click [here](#)



THE ENERGY TRANSITION AND YOU

JOIN THE NUDGE SURVEY!
AVAILABLE IN 14 LANGUAGES

GIVE YOUR PERSONAL OPINION
ON ENERGY CONSUMPTION AND
CONSUMER BEHAVIOUR

NUDGE
Nudging consumers
towards energy efficiency
through behavioural science

Survey open until May 31st



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement no. 957012.

PLATFORMS, TOOLS, VIDEOS and MORE

[Webinar series] Financing Energy Efficiency Projects

The [Triple-A project](#) has the pleasure to announce the Webinar Series “**Financing Energy Efficiency Projects**” to be held in the 8 participating European countries: Bulgaria, Czech Republic, Germany, Greece, Italy, Lithuania, Spain and the Netherlands.

The aim is to share the knowledge, tools and methods developed and utilised under the Triple-A umbrella related to funding, at an early stage, energy efficiency projects in the European Union.

The intention of the Webinar Series is to prepare and raise interest for the physical Regional Training Workshops that are scheduled at a later point in time (post covid), to train you on how to effectively use the [Standardised Triple-A Tools](#) to help finance energy efficiency projects in your area. During an interactive 1.5-hour session the following topics are addressed:

1. The **EU Taxonomy Regulation**, setting the stage and allowing us to discuss and compare projects through a uniform language.
2. The **Risk and Mitigation strategies** to assess potential future investments.
3. An overview of the **Financial Instruments** available to help minimise risk and maximize your projects potential.



Sparked your interest?

Register [here](#)

[Podcast] Check the ENPOR project on the Energ’Ethic’s podcast!

In this interesting [podcast](#), Marine Cornelis talks to Dr. Stefan Bouzarovski and Manon Burbidge about the findings of the [ENPOR Project](#) report on energy poverty in the PRS. Although energy poverty is getting more attention, it is still an invisible issue in many countries. Alleviating its impact in the private rented sector (PRS) is a challenge because of the difficulty to identify and quantify energy-poor households in the sector, and to deliver energy efficiency measures to these households due to structural problems like information deficits, split incentives, and more. Click "play" to get some very interesting and relevant insights!

[Tool] Eensight

Eensight is a tool new based on machine learning that will contribute to the much-needed advancement of the automated measurement and verification (M&V) methods for portfolios of buildings’ energy efficiency and provide the essential insights for both investors, legislators, and building owners and energy companies to realise their goals.

The creation of the eensight as is an advanced efficiency measurement and verification tool, solution in the M&V toolkit that opens up further technological possibilities for could enable new energy efficiency business models that help to reverse falling investment in energy efficiency, meeting investor expectations.

The eensight tool runs on python, is open source (MIT License) and found at <https://github.com/hebes-io/eensight>

The SENSEI project will officially launch eensight during the EU Green Week on 25 May 10:00-11:30 CET.

[Platform] ENSMOV Knowledge Sharing

[ENSMOV Knowledge Transfer Platform](#) is designed to enable National Authorities and other stakeholders, like energy companies, market actors and end users, associations and NGOs, to discuss Article 7 of the Energy Efficiency Directive implementation issues. It serves as a place of knowledge, learning materials, webinars, case studies, good practice examples and national level information. The Platform is constantly updated with the new legislative changes and the knowledge available.

The Platform will be officially launched on April 22nd, 2021. WEBINAR registration is available on the following [LINK](#).

[Webinar] Did you miss the enefirst webinar: Putting Efficiency First into practice – insights from the US and the EU?

Catch up now, the recordings are available! Hear from the barriers which can hinder the implementation of Efficiency First as well as insights on how Efficiency First is or could be integrated in different policy areas and instruments. Guest speakers from RTE (Réseau de Transport d’Électricité) and CPUC (California Public Utilities Commission) illustrated opportunities for Efficiency First, based on current developments related to the power system in California and in France. <https://enefirst.eu/events/webinar-putting-efficiency-first-into-practice-insights-from-the-us-and-the-eu/>

[Workshops] ENSMOV is diving in depth in specific elements of the Article 7 of the EED, where Member States are seeking support.

More specifically, thematic workshops are being held such as the [role of fuel suppliers in Energy Efficiency Obligation schemes](#), where fuel suppliers from all EU Member States under obligation schemes joined. The key issues faced is that fuel suppliers cannot easily carry out energy saving actions towards their end customers in the transport sector (as they do not have the same contractual relationship like the electricity or gas suppliers in the residential and industrial sectors). This requires additional financing streams towards the suppliers to move towards technical measures and also customized of the EEO schemes to reduce gradually the eligible

savings under behavioural measures. A second workshop was on [energy and climate taxation](#), which is an instrument used mostly to cover the gaps of savings from other incumbent measures. Issues on proper calculation of elasticity and extraction of energy savings were discussed in detail. Thirdly, the [cost-effectiveness of EEOs was discussed in a dedicated workshop](#), where participants and evaluators of various EEO schemes [analysed](#) the relationship of costs and outcomes in the course of time. A key conclusion is that flexibility options must be present to increase cost-effectiveness and we are not yet in place in the EU to compare the cost effectiveness of all EEO schemes due to the differences in their design characteristics and obligated parties. The cost-effectiveness of the schemes is influenced by the penalty, the buy-out price, the stringency of the MRV requirements and the special clauses in each scheme (such as dedicated targets of bonus savings on energy poverty actions and others). In 2021 a series of related events will be held, please inform us on your preferences: Setting up, developing and modifying Monitoring and Verification schemes; Assessing the side effects of EEOs and alternative measures; best practices on additionality and materiality; IT tools for MRV; Linking Article 7 EED and climate targets; How to set up and operationalize an energy efficiency fund; best practices on banking and borrowing rules on energy savings; and what is the market outreach of ESCOs within the Article 7 EED in practice.

[Video] Modelling non-energy benefits of energy efficiency

The consortium of the H2020 project MICAT is currently developing the effective methods for including inputs of stakeholders from different governance levels into the multiple impacts modelling. The start of the first step of involvement has been kicked-off, meaning the stakeholders are defining their needs for outputs and functionalities of the tool through a series of interactions, such as interviews, workshops, and online meetings. The stakeholder engagement strategy, developed by IEECP together with other partners, aims to ensure the transferability and applicability of the tool. For more information about the project, [check this video](#) from the project coordinator Fraunhofer ISI.



Are you familiar with our [IEECP lunch seminars](#)?

They are short and fun videos where IEECP team members introduce projects they are working on. So while you are having your lunch, tee, or coffee, tune in and find out something about the IEECP project of your choice!

The newest video, for example, is presenting what local and regional authorities can learn through our ENERGeE Watch learning programme. If you are interested in improving your sustainable project's data collection and other M&V practices, [this video](#) is for you!

UPCOMING PROJECTS

The successful project H2020 PROSPECT which finished in December 2020, is now continuing as PROSPECTplus!

The underlying idea is the same - cities, regions and their energy agencies learn from each other on how to finance their sustainable projects through innovative financing instruments. There will be four opportunities to join our learning programme, and the first learning cycle is planned to start in spring 2022. In the meantime, browse the PROSPECT website for useful learning materials, good practices and solutions: <https://h2020prospect.eu/>

Interested in online peer learning about data monitoring and verification of your sustainable policies and actions?

ENERGeE Watch, a Horizon 2020 project is starting its peer learning campaign in June 2021. There will be four different courses to choose from, and up to five participants from cities, regions and energy agencies will take part in each course. The courses are:

- 1: Energy Data collection (acquisition and treatment)
- 2: Monitoring, Reporting, Verification: follow up on implementation of actions
- 3: Indicators and strategies on adaptation to Climate Change
- 4: Data display, dissemination and validation by end users



There will be three cycles in total so expect a new campaign to join our learning in a few months. We are also preparing textbooks for each of the courses, for those of you who would like to learn solo.

In the meantime, [subscribe to our newsletter](#) and keep in touch!

EVENTS

DEESME policy workshop - DEESME team is organizing an online policy workshop "Overcoming Challenges in Art. 8 EED Implementation" on 20th April. The aim of the workshop is to discuss challenges and good practices for the effective implementation of Art. 8 EED policies targeting energy audits and energy management systems (EMS) implementation by companies. The workshop covers wide range of topics related to Art. 8 EED including policy design/redesign, monitoring and evaluation of policy and financial programmes' results and implementation of support mechanisms to increase the uptake of energy efficiency audits and measures in the SMEs sector.

In March the first round of **ICCEE workshops** was held in the Netherlands about **Energy Efficiency in the Cold Supply Chain of the Food and Beverage Sector**. It covered topics such as energy management systems, energy performance indicators, non-energy benefits, life cycle analysis, and financial aspects. The workshop was well appreciated by more than 60 participants. The second round of workshops is scheduled for May 2021, visit [this link](#) for more information about the programme and the registration.

Understanding regional aspects in the Central Asian and Caspian region:

- On March 3, 2021, the **PARIS REINFORCE** project held its second [virtual workshop](#) focusing upon the Central Asian and Caspian (CAC) region. The goal for the workshop was to inform regional stakeholders on the progress of the exercise presented during the 1st regional workshop (December 9, 2020) and receive a second round of insights from regional stakeholders which proved to be of great value to the research and the project's IAM PARIS platform development.

ENEFIRST consultation workshop - On April 15th **enefirst** hosted a workshop on barriers and success factors for the implementation of Efficiency First in different policy approaches for buildings, power sector and district heating. The conclusions from the discussions with more than 40 guest experts from 17 countries will serve as inputs to prepare policy proposals and guidelines.

ENPOR and DEESME presented at Concerted Action EED - The project **ENPOR** on energy poverty in the Private Rented Sector has been presented with an analysis of the related Article 7 EED policies in the March meeting of the Concerted Action for the Energy Efficiency Directive. **DEESME** and its work with National Authorities has also been presented in the *Tracking the implementation of energy audit measures* session of the Concerted Action meeting. IEECP has also presented the lessons learned from the implementation of various policies under the Article 7 EED in the [Energy Evaluation Europe 2021 Conference, Stimulating discussions and presentations](#) on what we have seen from the market perspective in the panel "Evaluating energy utility approaches to meeting Climate and SDG goals".

SAVE THE DATE: The SENSEI project will officially launch **eensight**, the advanced tool for metered energy savings, at its dedicated webinar during the [EU Green Week](#) on 25 May 10:00-11:30 CET.

Web discussion on energy savings calculation methods: The project [streamSAVE](#) on streamlining energy savings calculation organised on 5 March a first [web-meeting of dialogue groups](#) to launch discussions on calculation methods for a selection of five key [types of energy saving actions](#) (heat recovery, refrigeration systems, BACS & BEMS, Electric Vehicles and street lighting). About 120 experts discussed what priority issues should be discussed in the next dialogue meetings, in smaller groups for each action type. If you are interested in joining these discussions, you can register to the [streamSAVE platform](#) or email to dialogues@streamsave.eu.

IEECP as a supporting organisation to the ZERO BUILD conference in Turkey

- IEECP will be supporting one of the largest buildings conferences in September 21-26 2021 in Turkey, under the umbrella of the [ZERO BUILD](#) events held in several countries, where Vlasios Oikonomou is participating in the scientific board.



Collaboration of IEECP with the ABN AMRO bank in the Netherlands - IEECP is glad to join forces with the [ABN AMRO Bank N.V.](#) in The Netherlands to work on two interconnected projects funded by European H2020 : [#ICCEE](#), seeking to identify and implement significant energy efficiency performance benefits in the food and beverage cold supply-chain sector, and the [#Triple-A](#) project to enhance, at an early stage, the Investment value chain of energy efficiency projects, assist financial institutions to increase their deployment of capital in energy efficiency and make investments more transparent.

IEECP and [ABN AMRO Bank N.V.](#) collaboration allows both organizations to tap into the best of both worlds; with IEECP providing focused expertise to the dissemination of knowledge from a European Energy and Climate Policy perspective and ABN AMRO being one of the lead financial institutes and a huge player in The Netherlands providing tremendous knowledge, insight, and the practical leverage needed to create actual impact in the market, uncovering new sound investments, from both a Dutch and European perspective, in energy efficiency financing.



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Help us spread the word about all these interesting results!