



# REDay2015

## It's more than Renovation...

15<sup>th</sup> October 2015  
 Brussels  
 Conference Report

dioxide (CO<sub>2</sub>) emissions – by over **88% by 2050**. Luxembourg, during its term in the EC Presidency, is seeking to consolidate political support that will translate into **investments of €315 billion** over the next three years, with a majority going for renovation. Every year, **the EU spends more than €400 billion on energy imports**, in large part because **75% of homes in the EU are not energy efficient**. And **12% of European citizens live in a state of fuel poverty**.

Individually and collectively, speakers at **REDay 2015** built the case that **making the EU building stock energy efficient delivers not only lower energy consumption, but also health and well-being to citizens, CO<sub>2</sub> emission reductions, smart development opportunities that lead to local jobs and economic growth, and energy security across all levels of society**. In other words, **multiple returns on financial investment**.

Critically, political and industry support for the **Renovate Europe Campaign (REC)** is growing, according to Campaign Director Adrian Joyce. **93 MEPs representing 7 political groups** have signed the REC Manifesto, and **37 companies and associations** are now on board, including **14 national partners in 11 member states**.

Political will at the EU Commission level was evidenced in **video statements by EC Vice-Presidents Maroš Šefčovič and Jyrki Katainen, and by Miguel Arias Cañete (Commissioner for Climate Action & Energy)**, who affirmed that **"the boldest mea-**

**sures are the safest"** to avert the energy-related impacts of climate change. But the challenge is great: **more than €100 billion needs to be invested** annually to meet the EU 2030 energy efficiency targets – **€89 billion in buildings and €19 billion to improve efficiency in industry**. As current investments are less than half the amount needed, the question of how to fund such a large-scale undertaking was raised often, and diverse solutions were put forth.

Such shows of high-level political support for renovation are leading to change within the Commission, said **Jacek Truszczyński (Energy Attaché, Luxembourg)**. For example, effort is underway to make energy efficiency projects eligible under existing funds such as the **European Structural and Investment Fund** and the **Cohesion Fund**. But **two outstanding challenges remain**: an **"allergy" at national level to binding legislation and targets**, and the **lack of technical expertise to roll out projects**. A more flexible policy framework is needed, as is funding for training and small business development.

**Keynote speaker Theresa Griffin (MEP [S&D] from UK and Signatory to the REC Manifesto)** immediately got to the point that **"it IS more than renovation"**: energy efficiency is the best and least-cost way to capture the benefits described above. **Coordinated top-down and bottom-up approaches are needed**, she said. **The European Parliament has called for COP 21 to set a binding 40% energy efficiency target while the Commission has committed €38 billion in 2014-2018 to financing low-carbon investments including energy efficiency.**



*"Energy efficiency is the best and least-cost way to capture all the benefits. Coordinated top-down and bottom-up approaches are needed." (T. Griffin)*



National and municipal governments need to enable local action by setting clear policy and targets, and by reducing financial risks. On the bottom up side, the EP is soliciting proposals for the **revision of the Energy Efficiency and Energy Performance of Buildings Directive**. As **Co-Chair of the S&D Energy Poverty Working Group**, Ms. Griffin indicated that the manifesto currently being drafted will reinforce **the critical role of retrofitting poor homes and social housing**, and ensuring access to financing.

**"Renovation is the best way to ensure houses stop undermining the health and well-being of European citizens and societies"** said **Ian Watson (Principal Consultant, BRE Group, UK)** based on his experience in exploring the interaction between housing and health through the **Liverpool Healthy Homes Programme (HHP)**. Cold homes rank second – just below a fall on the stairs – as the highest

risk on the UK Housing Health and Safety Rating System (HHSRS). Some **15% of UK houses (3.4 million) contain a Category 1 hazard**, suggesting a high likelihood of high-cost health risks. **Poor housing has negative physical and psychological impacts** for individuals and is linked at the societal level to **additional costs for healthcare, crime, environmental clean-up, reaching CO2 reduction targets and achieving community stability**. Treating household hazards **costs the UK National Health Service about GBP 1.4 billion annually**; the vast majority, **GBP 848 million**, is directed to treatment costs associated with excess cold. BRE evaluations show that in its first year, the HHP removed 725 Category 1 hazards identified during 861 inspections. At a total cost of **GBP 1.07 million**, HHP delivered **GBP 440,000 savings** to the NHS and avoided **GBP 1.1 million** in wider societal costs. Scaling up the programme over 10 years, it is expected that a **GBP 6.5 million investment** will deliver savings of **GBP 55 million**.

**"Strategic large-scale renovation programs backed by effective policy can both secure financing and deliver substantial returns in a short time frame"**, said **Daiva Matoniene (Acting Vice-Minister of Environment, Republic of Lithuania)** who brought economics and 10 years of energy efficiency experience to a nation-wide housing upgrade program. With a large stock of poor quality, Soviet-era dwellings that rely on district

heating effectively trapping the entire population in energy poverty, in **recent years the Lithuanian government has subsidised 100% of heating costs**. A programme in which **large apartment block retrofits would both reduce energy consumption and eliminate subsidies**, to be rolled out in every municipality, made it possible to leverage funding by numerous actors, including **the Ministry of Environment, the Ministry of Finance, the Central Procurement Office and the JESSICA Holding Fund managed by the European Investment Bank (EIB)**.

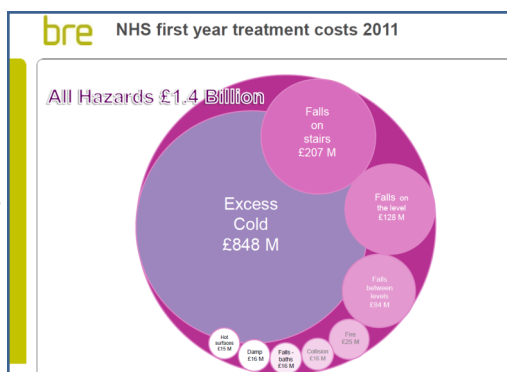
At the building level, the program made a large single investment – paying the upgrade costs – to rid itself of the ongoing subsidy burden. After retrofit, which was expected to deliver **energy savings of 50% to 70%**, heating costs (now deemed affordable) were transferred to the owners. To ensure the widest possible implementation, **new policy set the "majority vote" in multi-owner buildings at "50%+1"** and stipulated that



low-income houses refusing the renovation would lose their energy subsidy. The upgrades delivered **benefits in relation to environmental, economic and social issues at the municipal and national levels**. Home owners also received direct benefits in that **property values increased 20% to 30%**. **The residential scheme is now essentially self-supporting** – i.e. money saved on subsidies finances the next rounds of renovations. The government aims to extend the model to the upgrading of public buildings, again with municipalities taking the lead.

**"Cities can also be on the front line of action against climate change through renovation"**, said **Simone Raskob (Deputy Mayor for Environment and Construction, Essen, Germany)**; they can act more quickly and more strategically than national governments. **A holistic approach**, rolled out over a 20-year plan, has taken the former coal-mining town **"from grey to green"**, transforming its economic model and its workforce along the way. **Energy efficiency was among the 12 indicators the city adopted**, recognising it would feed into climate change, air quality and other criteria. The city also focused on **the "business" of energy efficiency**, aiming to create local work for people.

*"Strategic large-scale renovation programs backed by effective policy can both secure financing and deliver substantial returns in a short time frame"*  
(D. Matoniene)





The energy efficiency strategy comprised three elements: retrofitting buildings, eliminating off-peak storage heating, and boosting the use of co-generation and district heating. The city established a **Climate Agency** to facilitate interaction among craftsmen and experts in the areas of refurbishment,



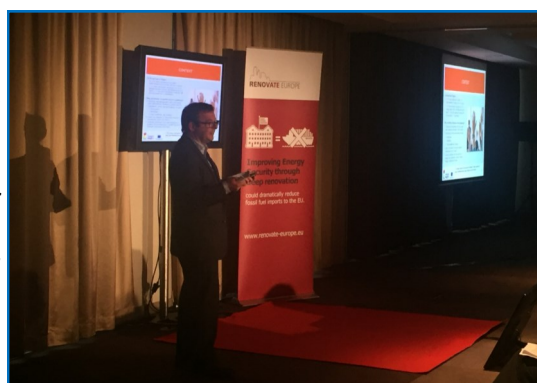
renewable energy, energy saving, mobility, climate protection, etc. To date, **12,700 jobs have been created in the energy efficiency cluster**; the city aims to **increase this to 20,000 by 2020**. Essen is one of relatively few European municipalities to

have achieved a **3% renovation rate per year for its social housing**; in due course, it aims to extend this rate to all building types.

With an eye on the challenge that renovating the building stock in the EU represents huge volumes of relatively small projects that require non-experts to make personal investments, some companies are exploring **new business models that offer value-added services**.

*"Private owners in condominium (multi-family) settings face two major hurdles",* said **José Lopez (Financial Director, Energies POSIT'IF, France)**.

*"They hesitate to invest in improving energy efficiency of common areas and services (such as central heating), and lack the*



*expertise to manage retrofit projects".* In addition, **their access to financing is limited** by lending institutions that don't "get" energy efficiency. Lacking the capacity to assess the effectiveness of the investment, banks do not tailor loans for long-term payback (i.e. 15 years).

**Energies POSIT'IF** manages **all aspects of retrofit projects**, designing, implementing and operating the contracts for works and services. By aggregating (or bundling) products and services across the supply chain, it **secures substantial cost savings** (e.g. in a project

price reductions of 30% to 70%). Since 2013, the company has **22 signed contracts** and **3,300 renovated apartments**, aiming for minimum **40% energy savings**.

On the financing side, **Energies POSIT'IF** has reduced perceived risk by bringing on more players. Private funding is acquired through the owner and through energy savings via **third-party**

**financing** and energy efficiency obligations on utility companies. **Public funding** is added in the form of **subsidies, tax incentives and soft loans**. **Energies POSIT'IF** used this business model to **secure a loan of €100 million from the Juncker Investment Package** administered by the **European Investment Bank**. By 2020, it aims to **retrofit 60 to 80 condominiums (8,000 dwellings)** at a **cost of €200 million**, with the model being replicated in **10 other regions of France**.

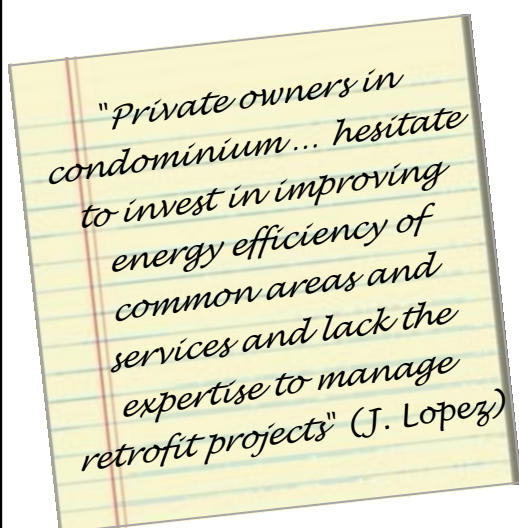
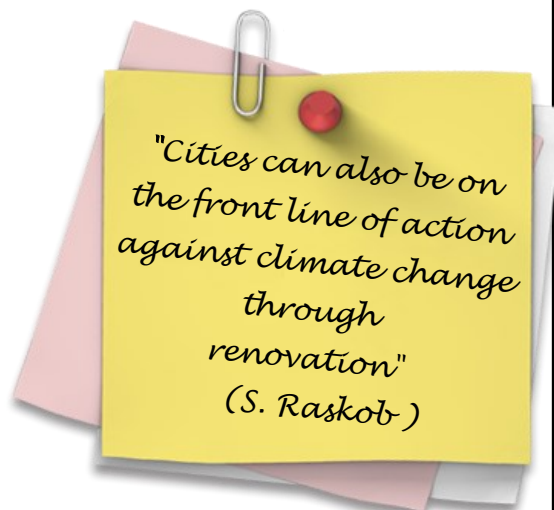
If an existing home in the Netherlands has an **RC value of 1.5-2.0**, it should be **possible to achieve net zero energy demand at an average cost of €35,000**. If a **15-year pay-back period** through energy cost savings can be demonstrated, **Wigger Verschoor (Project Leader for Sustainable Buildings, Urgenda, The Netherlands)** calculates this to be a **feasible investment threshold for private homeowners**.

**Urgenda retrofits target energy supply and in-house systems**, rather than focusing on insulation and the building envelope. Central to their approach is replacing old-fashioned boilers with technologies that integrate heat capture and storage – heat pumps, instant heaters, infrared panels and "freezer bags" being some examples. This gets past the problem that the typical roof size and efficiency of current solar panels don't offer enough supply to meet demand. **Urgenda**



**operates on a social entrepreneurship model**, seeking a **fair profit for itself and negotiating with other suppliers on behalf of the homeowner**. Recognising that many owners feel overwhelmed by the technology and wide range of options, **Urgenda offers guarantees and puts strong emphasis on building trust**.

*"Reducing demand through renovation is strategic to energy security at all levels in Europe",* said **Michael Rühle (Head of Energy Security Section, Emerging Security Challenges, NATO)**. It would create **more competition in the market**, with **energy efficiency playing its role as "the first fuel"**, and also



of 900 units requiring 5,000 windows, the company negotiated



send the message to Russia it no longer gets to set energy trade terms in its own favour.

NATO field operations demonstrate some of cost and security implications of not being energy self-sufficient: flying fuel into Afghanistan raised the price by 400 times and 1/8 of



causalities in Iraq occurred in troops protecting fuel convoys. To reduce reliance on diesel generators, NATO now deploys

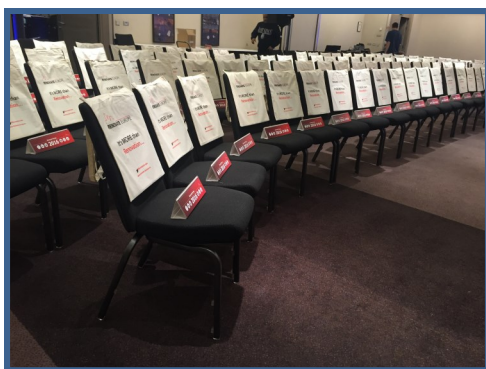
renewable energy technologies, coupled with smart grids and high efficiency equipment (such as LEDs), and ensures tents are well insulated. They also take steps to ensure the best technologies are interoperable and train every soldier to be an energy manager, both in fields of operation and at home. Ultimately, everyone can play a role in reducing energy consumption.

In the lead-up to COP 21 negotiations in Paris, Miguel Arias Cañete affirmed a key message of Renovate Europe – i.e. that renovation is not a burden on the economy, but rather it is pro-investment and pro-growth. It will save the public purse almost €40 billion and deliver "triple wins". Energy consumers

will pay lower bills and enjoy better comfort and health, the creation of new jobs will benefit the economy, and lower energy demand and associated emissions will reduce impacts on the environment.

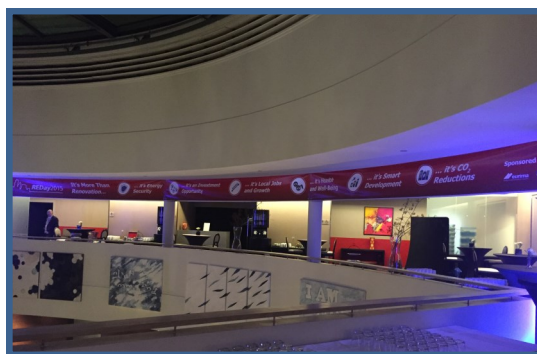
Working at the intersect between policy and industry, Renovate Europe plays a vital role in communicating goals, challenges and innovative solutions that will help all parties collaborate to deliver to EU citizens the massive social and economic gains embedded in energy efficiency.

*"Reducing demand through renovation is strategic to energy security at all levels in Europe" (M. Rühle)*



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