



INNOVATIVE FINANCE FOR SOCIAL AND ECONOMIC CHANGE

with Caroline Milne from Joule Assets Inc.

FEBRUARY, 2019

AN INITIATIVE
OF THE
EUROPACE
PROJECT

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The EuroPACE Project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 785057.

Scaling home and commercial building renovation in Europe will require a significant investment from both public and private sectors. What innovative financing tools are available to European citizens to renovate their homes?

Many innovative financing tools have been developed in the past years within the private sector, with the purpose of sustaining building renovation investments in residential, commercial, industrial and public assets. Among these, Energy Performance Contracting (EPC), On-Tax Financing, On-Bill Financing and Crowdfunding have proven – when properly implemented – the most effective solutions to fill the financing gap.

The most versatile financing option, and adaptable to different types of projects is **EPC**, which is a contractual agreement between the building owner and the Energy Service Company (ESCO), where the ESCO provides the finance and pays the investment back through energy savings that are contractually guaranteed to the client. The principle advantage of EPC is that it does not require upfront capital investment from building owners, and allows the ESCO to access off balance sheet financing from external investors. To date, EPC has been available mainly to large providers and a minimum project investment ranged €1-2 million, but often higher. However, it has potential to expedite the uptake of smaller projects, given a replicable project structure and standardised ESCO-client contract.

On-Tax Financing is a mechanism used to collect the repayment of a loan for improvements to homes and commercial buildings. For energy efficiency and small renewables projects, municipalities are able to attract private sector investors to lend capital to homeowners up-front and then get repaid regularly through an additional charge on a property-related bill. The main advantage of this mechanism is that the debt is attached to a property and not an individual, and thus can be transferred to a new owner upon sale. In the US, this model (called PACE – Property Assessed Clean Energy) has ex-

perienced great success: more than \$6 billion worth of projects, including over 220,000 residential homes, were funded through PACE since 2008. An Horizon 2020 funded project called EuroPACE is now bringing this model to Europe, with the first pilot being developed in Spain.

Addressing similar target beneficiaries, **On-Bill Financing** allows customers to repay loans directly through their energy bills. The finance is usually provided by the utility which strives to offer residential customers a simpler financing mechanism than a bank loan. While the program has been proven successful in several US states, in Europe the programme has been tested only in the UK, with limited scope and uptake.

Finally, crowdfunding represents an innovative and inclusive financing option that allows the general public, rather than just banks and investment funds, to earn from local clean energy investments.

What are some social, economic and health benefits of energy efficiency renovation?

Energy efficiency improvements can impact the health of vulnerable citizens in a very important way; reduced respiratory disease symptoms and lower rates of excess winter mortality in cold climates are the most prominent benefits, as well as a decrease in mental health problems linked to energy poverty. Home renovation has the power to bring a considerable number of Europeans out of energy poverty, lowering their energy bills and improving their indoor environment.

Finally, building renovation programs are able to revitalize local economies through an injection of capital, and the creation of new local jobs and capabilities within the construction and energy service industry. From an industrial and commercial perspective, providing comfortable and healthier workspaces can also improve workplace productivity within offices and factories, and thus business competitiveness at large.



Caroline Milne is Director of Communications and Marketing for Joule Assets Inc, where she develops and deploys Joule's communication and marketing strategy in Europe and the United States. Within Joule, Caroline has successfully led outreach efforts towards project developers and investors within the SEAF H2020 project, enabling the successful launch of Joule's eQuad project investment platform, as well as for local community energy programs in New York state, engaging both municipalities and residents. She has a Masters in Political Science from the Université Libre de Bruxelles, specializing in EU electricity market design.

What does equal access to financing mean in the context of energy efficiency renovation?

Equal access to energy efficiency finance means that viable options are available for all sectors: residential, commercial, and industrial. However we aren't there yet. In the case of the residential sector, banks only offer low interest loans to customers with good credit ratings. Those who cannot afford to take on more debt or who are not homeowners are therefore excluded. Similarly, in the commercial and industrial sectors, low cost loans are only granted to large investments and large businesses with strong credit ratings. This excludes most SMEs - both project developers and their commercial and industrial end-clients- the vast majority of European enterprises.

Whereas on-bill and on-tax financing are great options for low income households, crowdfunding can support small one-off projects for local communities, EPCs are excellent structures for small but scalable commercial and industrial projects. Innovative off-balance sheet financing should allow everyone to benefit from warmer homes and more comfortable working spaces, granting equal access to energy efficiency and renewables that, to date, are still luxury goods inaccessible to most EU citizens.

What can cities do to ensure a more equitable access to financing and a more just clean energy transition that benefits all Europeans?

If cities want to ensure more equitable access to financing to

lead the clean energy transition, their primary objective must be to enable private investment through smart use of public money. This is possible only by reducing the barriers to access private innovative financing, and by creating synergies between public and private tools. Regions and cities can lead the clean energy transition by designing renovation initiatives that encourage and permit the use of public funds to boost private investment. The only way to reach this objective is an open communication between the public and private sectors, together with clear and strong political support for building renovation programs.

Joule Assets is one of the partners in the EuroPACE project. In your opinion what makes it an effective solution for European citizens?

EuroPACE has the potential to boost home renovation in Europe by overcoming major market barriers to investment in energy efficiency projects. Based on the On-Tax Financing mechanism, it provides citizens with 100% up-front financing that stays with the property upon sale. This investment is then repaid as a special charge attached to the house and not to the homeowner. Investors can benefit from having a secure, low-risk, long-term investment and affordable rates offered by the On-Tax scheme. Of crucial importance, it also supports job growth, and improves social health, well-being and productivity, thanks to newly renovated energy efficient homes. EuroPACE is a step towards making home renovation simpler and more affordable for all Europeans.