

Nearly Zero-Energy Buildings: Best Practices from Intelligent Energy Europe

A simple web-tool to demonstrate the financial feasibility of nZEB renovations

In the processes of building renovations, building owners will not only look for pertinent information but also evaluate the different alternatives that are available to them. AIDA project partner HESPUL (a non-profit body that accompanies local rural municipalities building climate action plans as well as providing energy information advice to the general public), has tackled the challenge of providing a simple tool that demonstrates the financial viability of high performance renovations (nZEB and better), and shows building owners that upfront costs should not be the determining factor when considering building thermal renovations.

The web tool, designed as a “teaser” for energy information advisors and tradesmen alike, demonstrates the yearly energy and loan repayments for a renovation project. Energy costs, buildings performance, subsidies and interest rates can all be adjusted to approach real-world conditions. A simple graph is all that it takes to demonstrate that, with the right conditions, a costly nZEB renovation is actually easier to repay than a cheaper superficial renovation.

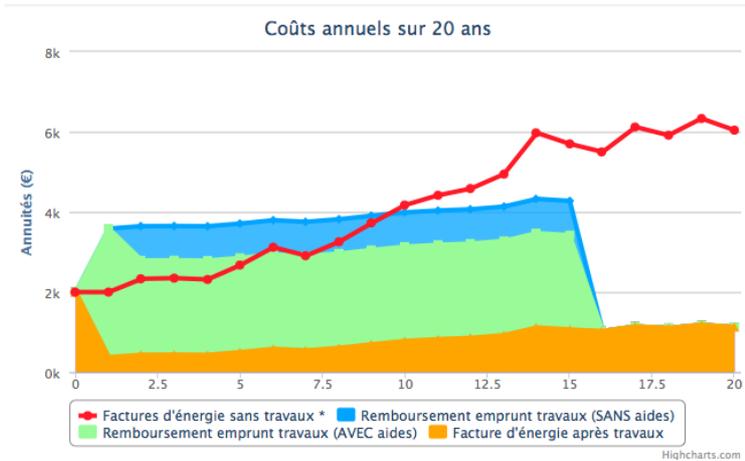


Hespul’s Julien Renucci, who works closely with local rural municipalities setting up climate action plans, specified for a tool accessible and useful for energy advisors and tradesmen “The web tool demonstrates the energy costs of different heating sources – we can show building owners the different energy running costs, comparing a high performance gas boiler to reverse cycle air conditioning or modern pellet stoves, and associating that with loan repayments and renovation investment costs”

To put it simply, a nZEB renovation results in very low energy operating costs, freeing building users from most of the impacts of inflation and volatility in energy prices, whilst a long term loan with fixed repayments means a stable, plannable budget. As we head into an uncertain future, loan repayments



can come in lower than unstable energy costs in a very short time frame.



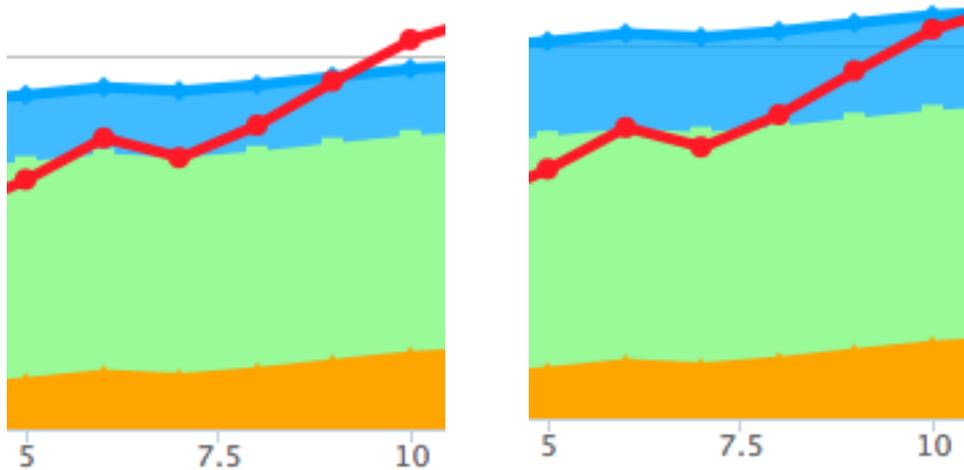
After specifying current energy costs, users indicate target energy performance, renovation costs, loans and subsidies. The tool plots annual energy costs and loan repayments, including the impact of subsidies and tax credits, (yellow, blue and green curves) and compares them to energy costs if no renovation works are undertaken

The tool is not only useful to accompany building owners to push for high performance renovations, but also as a tool to accompany local municipalities and financial organisations in their accompaniment of building owners, demonstrating the concrete impact on local subsidies and interest rates.



Yann Crevolin (HESPUL) accompanies local authorities developing local incentives for their constituents. He is enthusiastic about the tool “Direct subsidies and tax credits abound in France; I have been able to use the web tool to demonstrate to local authorities that the best and most cost effective incentives they could offer to accelerate building renovation are not direct subsidies but low interest loans. It’s a fabulous tool with a clear and easy to understand user interface. It really can be a policy planning tool!”





A 15-year loan at 1% instead of 6% reduces average monthly repayment costs (blue curve) by 40€ and operating costs (energy + loan) become more affordable than a no-works situation after only 8 years instead of 11 years.

The tool is configured for France, and available free for use on the www.ecorenover.org website; it can also be integrated as a widget into websites – for example, a local authority can make it available for local residents as a public service, and members of France’s national energy advice centre (EIE / PRIS) networks can add it into their own websites.

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