



MEDIA RELEASE

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## **Wates joins ETI led innovative project to improve energy efficiency of existing housing stock on a mass-scale**

A pioneering £3 million project is now underway to design supply chain solutions to improve the energy efficiency of the vast majority of the 26 million UK homes<sup>1</sup> which will still be in use by 2050.

The Energy Technologies Institute (ETI), a public private partnership tasked with developing 'mass-scale' technologies that will help the UK meet its 2050 carbon reduction targets, is beginning a two-year project to identify ways in which the refurbishment and retrofitting of existing residential properties can be accelerated by industrialising the processes of design, supply and implementation, while stimulating demand from householders by exploiting additional opportunities that come with extensive building refurbishment.

The consortium, which has extensive experience of housing, supply chain re-engineering and refurbishment, will be led by BRE (Building Research Establishment), in collaboration with EDF Energy, Peabody, PRP, Total Flow, UCL and Wates.

Chris Woods, Research and Development Director, Wates Group said "Energy security and the inevitable reduction in future supplies of oil and gas make this project absolutely critical for the UK's sustainability. We might know what to do on a one off project where money is no object, however economic solutions at scale no one has any idea yet how to make it happen. If the research project is a success we will have the answers in less than two years. Refurbishing every property in the UK over the next 20 - 40 years will be the biggest reconstruction project this country has ever seen"

The UK Government sees retrofitting existing homes as a key tool to achieving its 80% CO<sub>2</sub> emissions reduction goal for 2050, with housing the single biggest contributor to the nation's CO<sub>2</sub> emissions. However, the challenge is huge, with the Department of Energy and Climate Change<sup>1</sup> proposing that we need to be delivering a comprehensive package of measures at a rate of 1.8 million per year by 2020 in order to get the entire housing stock operating more efficiently by 2030 in order to meet our targets. That's nearly a city the size of Cambridge each and every week.

The project will develop a top to bottom process: from a method of analysing the most cost-effective package of measures suitable for a particular property, through to how these will be installed with the minimum disruption to the householder. This includes identifying the skills required of the people on the ground as well as the optimum material distribution networks to supply them with exactly what is required and when. A key factor is to ensure predictable results in terms of increased comfort, reduced energy bills and increased asset value of the house, while also delivering value to the companies involved in the supply chain. The methods of analysing these complex interactions are what the team will be bringing from other high volume industrial sectors. The project will also deliver a model capable of running scenarios at a local, regional and national level to identify CO<sub>2</sub> impact and cost of various mass retrofit plans. This information can then be used by local authorities and a large portfolio of owners who are vital stakeholders in delivering this transformation at a national level.

Dr David Clarke, the ETI's CEO said: "Twenty four per cent<sup>2</sup> of today's CO<sub>2</sub> emissions in the UK are linked to energy use in domestic properties. Refurbishing these houses with energy efficiency measures is key to ensuring the delivery of affordable and sustainable energy to domestic and business consumers. Persuading consumers to take-up refurbishment and technology retro-fit opportunities requires us to address the challenge of creating supply-chains and delivery routes which consumers trust and which they consider affordable. With the majority of today's 26 million dwellings expected to still be in use by 2050, the outputs from this ambitious project are absolutely critical to understanding how we can help meet the CO<sub>2</sub> reduction targets as set out in the Climate Change Act."

The Government's Chief Construction Adviser Paul Morrell, from the Department for Business, Innovation & Skills, who welcomed the launch of the initiative, said: "It would be easy to be daunted by the challenge of having to treat 26 million homes for improved energy efficiency by 2050 – 12,500 a week, every week, even if we take the full 40 years. This is way beyond the scale of anything attempted before, and it calls for a response from the industry that addresses that scale whilst acknowledging that, to its occupier, every home is uniquely valuable. Getting things right, in terms of what we do and how we do it, is critical, and this research project will make an essential contribution to making sure that we do get it right."

The project complements the ETI's Micro Distributed Energy scoping and feasibility study to identify opportunities for microgeneration, in addition to the ETI's Macro Distributed Energy project to study energy demand and supply profiles for major sites. The new project also supports the Committee on Climate Change's recent recommendation that the UK should focus on the development and deployment of a range of key technologies, including smart grids and meters.

ENDS

#### **Notes to Editors**

- Wates is one of the UK's largest family-owned construction services and development companies. Established in 1897, it remains privately owned by the Wates Family. Wates employs over 2000 people and had a turnover of £945 million in 2009.
- Part of the family owned Wates Group, Wates Living Space is one of the UK's leading affordable housing contractors, working with RSLs and ALMOs we build or refurbish in the region of 20,000 homes for residents each year through the New Build and decent homes programme.
- Wates Living Space was awarded Contractor of the Year at the Housing Excellence Awards and Sustainable Contractor of the Year at the Inside Housing Sustainable Housing Awards in 2009.

[www.wates.co.uk](http://www.wates.co.uk)

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