

# T-ZERO

REFURBISHING HOMES FOR A LOW CARBON FUTURE

## Why? T-ZERO

- The UK is committed to reducing CO<sub>2</sub> emissions by 34% by 2020, with an 80% reduction by 2050.
- Following the Government's introduction of the Code for Sustainable Homes and the requirement for new homes to be zero carbon by 2016, our new homes will have some of the highest possible energy standards.
- But our existing homes are already responsible for 27% of the UK's total carbon emissions, and the vast majority of these homes will still be with us in 2050.
- The environmental and financial costs of running our homes will only increase in future unless governments, homeowners, private and social landlords, and the building industry do something about it. The most effective solution is to implement energy efficiency and renewable measures that reduce the amount of energy we consume and carbon that we emit. The good news is that our practical options are increasing...
- ...the bad news is that it is often difficult to know which of the myriad options is best for each home. Which is why T-ZERO has been developed...

## What? is T-ZERO

- T-ZERO (Towards Zero Emissions Refurbishment Options) is a project initiated by some of the UK's leading charities, associations and companies with a brief to develop novel ways to reduce the environmental impact of the existing housing stock. The webtool that has been developed is designed to give users free sustainable refurbishment advice, enabling them to identify the optimal solution for their home.
- Use T-ZERO to:
- Select the most practical and economic 'packages' of energy efficiency and renewable measures for refurbishing existing homes.
  - Determine your preferred package for your budget, depending on whether you want to reduce CO<sub>2</sub>, reduce fuel bills, maximise Net Present Value, get the best EPC rating possible, or the shortest pay-back.
  - Find local and national suppliers, installers and retailers of chosen measures in the T-ZERO marketplace.
  - Benefit from detailed Measure Reports that give you best practice, DIY, grant availability and planning guidance, then learn from case studies involving similar homes or measures.

## Who? uses T-ZERO

- Homeowners**
- T-ZERO will help you sustainably refurbish your home by showing you which 'packages' of measures are most suitable.
  - Apply your budget and measure the package performance by CO<sub>2</sub> saving, fuel bill saving, payback, Net Present Value or EPC rating.
  - Once happy with the measures, get in touch with the local suppliers, installers and retailers on the T-ZERO Marketplace.
- Housing managers**
- Assists housing providers and asset managers in addressing the Decent Homes standard, and improving tenants' energy security and welfare.
- Building professionals**
- One-stop shop for costs, technical guidance, and suppliers, installers and retailers in your area.
  - A rapid assessment of achievable environmental improvements based on clients' criteria.
- Suppliers, installers and retailers**
- T-ZERO can put you in touch with informed householders and building professionals that need your products or services.

COMING SOON: T-ZERO 'expert mode' which will allow users to undertake a full EPC/SAP assessment and alter the costs and parameters of the improvement measures. This will allow companies to deliver the appropriate 'whole-house' packages in line with the proposals in the Government's 2009 Heat and Energy Saving Strategy consultation, where repayments are spread over 25 years and taken out of householders' fuel bill savings.

## Your Building

## Package Selection

## Package Detail

Determine which of the several million T-ZERO permutations best matches your home. Using drop-down lists, select the appropriate building type, wall type and bedroom numbers, before choosing those energy efficiency measures that you already have: loft insulation, wall insulation, double glazing, draught proofing, heating system, secondary heating, low energy lighting and renewables.

Use the Package Selector to assess the optimal improvement package for your home. Apply your financial budget, then peruse the top packages according to whether you aim to save carbon, achieve a quick payback, maximise the Net Present Value, upgrade to the best possible EPC rating, or simply save as much as you can on fuel bills. Click on the tab of your preferred criteria for the top package in each cost band. Exclude unwanted measures, and view the package performance on the charts.

Get further detail on your chosen package in the Package Details screen. Here you can see a cost breakdown for each of the selected measures, be alerted to any potential issues with installing each of the measures, and link to detailed downloadable reports covering both the measures and the package as a whole. Any measures that you no longer think are suitable for your home can be immediately removed.

For each selection criteria, see the top performing package for the set budget

Enter the details of the home you wish to improve. Which measures are already installed?

Look in more detail at potential packages under your preferred criteria

View the impact of the packages in terms of CO<sub>2</sub> saving...

...or through a Total Cost Curve to see the financial savings over 30 years.

Use the include/exclude table to tailor the selected measures

Once you've chosen a package, you can see a clear breakdown of costs, see if any issues are 'red flagged', and download a PDF of each measure and the entire package.

Click on a flag for guidance on any immediate problems that may arise with the measure. Click the 'remove' button to reject measures that aren't appropriate.



## Marketplace

Link to the suppliers, installers and retailers of the measures you've selected. View them on the google map, by proximity to your home. Use the 'quote me' system to make contact.

View user-submitted case studies which detail experiences others have found with your chosen measures. Once you've been through the process, submit your own case study!

## Information Centre

Download reports on all the measures within T-ZERO.