

Project Snapshot

Company: Chalmor
Business: Specialising in energy efficient lighting solutions and intelligent energy saving devices
Project: Helping homeowners save money and energy with the new eTRV (Electronic Thermostatic Radiator Valve) energy saving device

Energy and Environment

Give your heating some time off

Giving homeowners realistic potential for 25% energy savings

A KTP with London South Bank University will help homeowners save money and energy with the new eTRV (Electronic Thermostatic Radiator Valve) energy saving device.

A normal TRV (Thermostatic Radiator Valve) works by a mechanical bulb and a wax seal that expands when a room heats up, shutting off the radiator, and contracts when the room cools down, heating up the radiator again. "The problem with this", says KTP Associate Shyel Stark "is that it takes a long time for it to react, causing peaks and troughs of over-heat and under-heat, wasting huge amounts of energy." The new eTRV, with its programmable handset means you can programme your radiators so that you can have the heating on in only one room or a few rooms. By not heating the whole house unnecessarily the system makes less demand on the boiler, therefore saving energy.

Chalmor, whose strategy is to achieve growth through developing innovative, world leading, competitive products, is thrilled with the progress this project is making. "We are entering a brand new market in the domestic heating field that has so far been un-tapped by our company. This product will mean we can become a big player in the heating market. If it works out as well as we hope it will, we expect our business to double,"

comments Barrie Morris, Commercial Director at Chalmor. This product really is innovative and is ahead of its game, introducing 2 features that as yet are not available on other systems. "Our product has dual sensors, an innovation that we have had patented, which can calculate the true temperature of the room - not just the local air temperature. The KTP allowed us to reassess the needs of householders, leading to the development of a portable handset, a huge advantage for the user," remarks Barrie.

Currently Shyel is focusing on testing the product using empty housing and an environmental chamber which will allow Shyel to compare performance at various temperatures controlled using traditional TRVs and the new eTRV, proving the energy savings that are available using this technology.

Shyel's work so far has concentrated on the specification and testing of the new handset, which enables users to control their heating from the comfort of their sofa. "We are hoping to dramatically change user behavior and the way we interact with our heating; it's a real hot topic in the great energy debate at the moment. Our vision for the future is that this very easy to use control is adopted in every household nationwide, making the next generation of users comfortable with reducing the energy use around them, just like turning off a light when you walk out a room," says Shyel.

Helping Shyel and Barrie with this project has been LSBU academics, Professor John Missenden, Dr Gordon Lowry and Anna Zacharewicz. "John and Gordon have been a

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great help with their knowledge on thermodynamics. They can help us determine new tests for the product and help with the interpretation of the data. The external perspective is what helps us the most because they see everything with a fresh pair of eyes," praises Barrie.

"Anna has been instrumental in helping Shyel develop Marketing skills, which will prove invaluable when we begin the real push on getting this product to market."

So what's next for this dynamic, pioneering company?

"We hope to move this product to the next level using wireless interfaces which would allow every eTRV to talk to one another and link into the boiler. We could even consider using the latest generation mobile phones as the interface so people can use their mobiles to regulate the heating in a room. But first, we need to prove the market and make eTRV the commercial success that we are aiming for," says Shyel.

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