

Spotlight on Energy Efficiency



Company: Tala LED

Innovative business model type: Hire and leasing

Sector: Energy

Company size: SME

Product or service: Development and retail of energy efficiency products such as smart light bulbs



Key Facts

- Tala LED creates and retails filament and spot LED lights, with the goal of delivering energy efficiency through design to the mass market.
- Tala also aims to develop a smart internal board that controls and monitors devices in order to help customers reduce energy usage.
- The REBus pilot was developed to build a network of early adopters able to trial the hire and leasing of Tala products.
- 10 businesses have taken up the offer, with Tala continuing to roll out its scheme to commercial and domestic customers.

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Introduction

Tala LED creates and retails filament and spot LED lights which are affordable, aesthetic and up to 90% more efficient than traditional incandescent bulbs. Based in the UK, the company operates in 11 territories across Europe and the USA.

According to the International Energy Agency, connected electronic devices cost the global economy £46bn per year through wasted energy. Eight per cent of the total electricity used in our homes comes from leaving appliances on standby. This excess use leads to added pressure on the grid, while consumers are losing money in the form of wasted energy.

Tala sells direct to the public and also to commercial businesses. In addition to its LED lighting products, Tala aims to develop a smart (internet connected) internal board that controls and monitors devices and appliances, in order to help customers reduce energy usage.

“Current technology is bulky and primitive. Tala is creating miniaturised technology that uses machine learning and behavioural monitoring algorithms. Data can then be used to better understand the energy needs of the end user. Beneath that message, lies Tala’s promise to the individual: by buying the most beautiful ‘learning light’ in the world, they have control over their home.”

Josh Ward, Founder, Tala LED

REBM for energy efficiency

Tala had two goals – to provide beautifully designed, attractive, energy efficient light bulbs to the mass market, and to develop a system that would enable customers to manage their energy more resourcefully.

The REBM involved exploring a range of solutions, including:

- Offering customers a monthly lease purchase agreement set at £1 per smart bulb, per month (trade price);
- Provision of non-smart enabled energy saving hardware at no cost, with Tala recovering a percentage of energy saved;
- Provision of smart enabled hardware at no cost; and
- Sale of lighting as a service to hotels, to retrofit, and take old bulbs away by teaming up with a known provider that is setup to collect old bulbs. The Smart bulb could also be as straight B2C or B2B sale, trade-in at end of life or service lease;
- Looking to take back and re-use of Tala products

What would success look like?

- Creation of a viable product prototype by Q3 of 2015 and analysis of the supply chain by Q3 2015.
- Building of a sustainable value chain for all stakeholders.
- In order to keep consumer prices down, achieving a manufacturing price of £15-£40.
- Sales margins of 30% for smaller bulbs, increasing for larger and higher end products.
- Making low carbon products available to the mass market.

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Challenges

The cost to develop the smart internal board is likely to be significant and requires external capital to pay for additional team members and research costs. As such, financial modelling and gearing were important elements of the business case.

At the end of life the modules could be easily removed, re-used, re-manufactured.

Tala also need to identify the total bill of materials, before working out how they will be re-integrated at the end of life, especially as bulbs will last 20-50,000 hours.

Tala LED bulbs are about 30% more expensive than traditional bulbs so customers need to be convinced of the benefits. However, the payment option allows the cost of the bulbs to be spread over a period so that more cash is available to spend on core business.

Why REBus?

Tala was keen to understand its audience better and to trial something new and bold with early adopters. The aim was to assemble a fun community of adopters, to try some of the company's ideas out on before making an informed decision on how to proceed.

REBus support

"The support provided often confirmed our beliefs. It helped us to network and learn from others, and afforded us a really good background structure on which to base our decisions."

Josh Ward, Founder, Tala LED

Pilot

The aim of the pilot was to test the idea of leasing products in a relatively safe environment and learn more about the practical implications of the system. The initial target was sign up 400 small customers. However, it quickly became clear that this target was overly ambitious.

Tala recruited a project manager to take the pilot forward and to develop the proposition to the customer.

At first the practicalities of setting up a finance lease seemed too complicated for the customer's purpose. They were often able to find a simpler solution that met their needs. Handling VAT was initially a complication but, when resolved, this did not hamper the trial.



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Prototyping and research began in February 2015, with the trial continuing throughout 2015.

Around 10 businesses have taken up the offer. Feedback has been positive, but the project has not been scaled up yet. The original idea was to look at Internet of Things and develop a new product. However, the timing was not quite right for this. The product is still in development but has been postponed until the timing is right.

Tala has developed a virtual app for calculating savings that can be made from leasing on the website. This is used by the sales team when visiting businesses.

Next steps

Tala began to roll the project out slowly from January 2016. The campaign launched with showcases at the Consumer Electronics Show, South by South-West and Mobile World Conference.

The aim in the future is to develop closer ties with customers, and to offer additional options and services to them. This might include the option to switch models mid-term, taking back the bulbs at end of life, or trading them in. Tala will be working with the trial community to gain feedback on the service and to develop the future direction.

Lessons learned

Financial modelling was critical in showing which routes were worth pursuing and which should be abandoned.

It became clear that energy savings would outweigh the subscription cost at around the halfway point.

Macro research on the Internet of Things and the approaches taken by other companies was most useful. It was good to get a fresh, professional perspective but to certain extent it confirmed and backed up Tala's existing impressions of the market.

Insight into the approach taken by other businesses was also insightful; Tala felt that it could do a better job of tapping into consumers emotions.

Advice to others

"Don't be afraid to try things out and enjoy the process of getting information. It's a healthy process."

Josh Ward, Founder, Tala LED

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Case studies were generated as a result of pilots carried out for REBus by WRAP or RWS and the named organisations from 2013 to 2016.

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