Power to the people

Heralding their sustainable sound and lighting devices, Editor Matthew D’Arcy talks technology for the developing world with Chief Executive of the Freeplay Foundation Kristine Pearson…

A kind gesture it may be to donate an old computer, yet what use are computers when there is no reliable electricity source? Thomas J Brayford of FACE Uganda, writing later in this edition of Public Service Review, certainly has a point. However, what if there was a way of ensuring a reliable electricity source in some of the poorest areas of the world? Kristine Pearson, Chief Executive of the Freeplay Foundation, argues there may be an answer to this fundamental challenge.

Though not specifically intended to power computers, the non-profit Freeplay Foundation has been working in conjunction with a separate entity, Freeplay Energy, to develop equipment designed to adapt wind-up technology to power lighting and other potential devices for use by the rural poor. Such technology has perhaps most famously been implemented into radios, enabling people in impoverished areas to use them. The lighting adaptation is due to provide for people in similar circumstances.

Ms Pearson said that with a predominant emphasis on African countries, their focus is on the most vulnerable: “By definition, those are orphans and other vulnerable children, refugees, disabled, rural women, people who are ill, people who do not have a regular income.”

“Lighting can change people’s lives completely,” she continued. “Can you imagine that your life is so incredibly limited when the sun goes down? The bulk of the population in Africa live within a latitude to the equator, so the sun rises and sets at the same time every day. The environmental consequences of paraffin, kerosene, fuel, candles are horrendous. The health consequences are absolutely diabolical, let alone the environmental consequences. So this will be high quality, renewable energy that will change people’s lives because they will be able to have many more useful hours in each day.”

Ms Pearson added: “We have distributed Lifeline radios over the last four and half years and 150,000 of these radios have gone out. One of these radios reaches at least 40 people, who would not have any radio or information access – very conservatively, we are reaching around six million listeners. We have a technology that makes a huge difference to humankind, and we want to do what we can to disperse it as viably and responsibly as possible.”

Asked how the technology worked, Ms Pearson suggested: “The energy is stored in an alternator – in a very high quality rechargeable battery, so that it can be charged by solar or human energy – wind-up.” She said: “We are gathering the information to create prototypes working with Freeplay Energy, to ensure that the lighting products will be appropriate ergonomically – they will be very high quality, be rugged and durable, fit for purpose, and will last a very long time, under harsh conditions.”

It was also emphasised that the technology did have numerous applications other than lighting: “We are already using the technology in radio, but it can be used in a multiplicity of other devices. Freeplay Energy uses it for cell phone chargers, for lanterns, for torches, and for various radios – there are many applications for the technology. It is about 12V; with an inverter it is more, but you have to be a little more realistic for some of the lightweight PDAs and laptops, depending on how [the device] is powered.”

And so clearly, an opportunity presents itself for many people in the developing world. The introduction of an easily managed sustainable energy source could, in turn, revolutionise lifestyles. Ms Pearson concluded: “The market opportunity is certainly there – we run a very important humanitarian initiative and it is very important that our products are designed for those who are going to use them. Just because the poor do not have money does not mean that they cannot have quality – there is so much rubbish out there. The poor deserve to have high quality and environmentally sound and responsible products.”

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