

Commercial building case study



# KiWi Power and Time Inc. UK partner for demand response

## Key project benefits



New recurring revenue streams



Reduction of CO<sub>2</sub> emissions



No disruption to site operations



Access to real time energy management dashboard with enhanced monitoring features

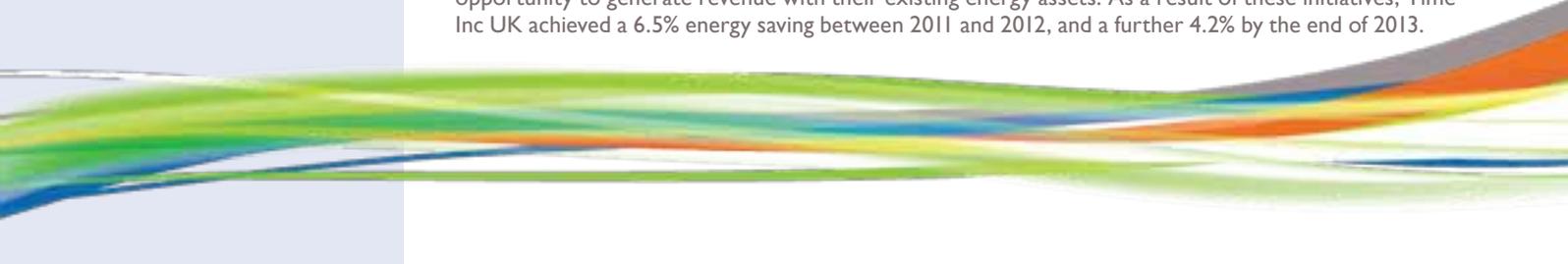
## Bringing demand response to the iconic Blue Fin office building

Time Inc. UK is Britain’s leading publisher of print and digital magazine content. With more than 60 iconic brands - including Decanter, Country Life, Horse & Hound, NME, What’s On TV and Wallpaper\* - Time Inc. UK (formerly IPC Media) creates content for multiple platforms, across print, online, mobile, tablets and experiences. They engage with almost half of all UK adults through print and award winning websites reaching over 28 million global users every month.

IPC London headquarters are operated out of the well known Blue Fin building on Bankside. The Blue Fin was designed by Allies and Morrison - the award-winning architectural practice also responsible for the Royal Festival Hall New Building and the BBC Media Village. The development is part of Bankside 123, a project by Land Securities to redevelop this part of Southwark into three new buildings. Blue Fin - or Bankside 1 - gets its name from the 2,000 blue aluminium fins that cover the building’s façade and shade the interior. It is home to IPC Media and assorted offices with a shopping arcade and health club on the ground floor.

In 2009 the business launched the ‘Green Fin’ project, aimed at reducing environmental impact through operational changes and engaging employees in making small, straightforward changes to the way they work. The main priorities are recycling, saving paper and saving energy and, since the Carbon Reduction Commitment was introduced in 2010, they have concentrated particularly on reducing energy consumption.

Actions have included aligning air conditioning times with working practices in each area and running software that switches off computers and puts them to sleep overnight. In addition, with lighting accounting for 30-40% of energy use, they successfully trialled and implemented a new system whereby all lights have to be switched on manually rather than coming on automatically through motion sensors. It is these kinds of initiatives that make demand response of particular interest to Time Inc, UK as well as the opportunity to generate revenue with their existing energy assets. As a result of these initiatives, Time Inc UK achieved a 6.5% energy saving between 2011 and 2012, and a further 4.2% by the end of 2013.



# How KiWi Power delivered for IPC at the Blue Fin:



## Assessment and design

- KiWi Power's engineers visited the site to meet with facilities management and operations staff to assess existing systems and identify appropriate assets for use in demand response programmes.
- A detailed project management plan, installation assessment and risk assessments were created for the initial phase of installation and control.
- KiWi Power and Time Inc. UK worked together to design a process to allow the building management system(s) to reduce load with a push of a single button in the timeframes required by National Grid.



## Installation

- KiWi Power worked with existing contractors in order to bring the Blue Fin building online in a structured and phased way.
- Chillers and air handling units are used for demand response as well as trimming all the heat pumps by adjusting the inverters from 50 Hz to 30 Hz.
- The main site high voltage 30 minute meters were swapped out for new KiWi Power proprietary, one minute real time meters. These new meters offered greater granularity and

accuracy by logging minute-by-minute readings rather than 30 minute slots.

- Data is collected wirelessly from the meter through pulsed outputs at different points and reported via KiWi Power's control centre to National Grid.
- There were several different configurations tested of plant operation to get the optimum turn down of energy with the least disruption to staff. Time Inc. UK and KiWi Power ran three trials and managed to deliver 200kW in less than four minutes.



## Delivery

- Delivery was staggered seamlessly following initial contact. The new meters were installed with testing of the various configurations to get maximum total kW taking place within three months. New meters were installed and different configurations tested to get the maximum kilowatts available. This all took place within three months.
- This process was rigorously tested and a full onsite training programme was completed with prior to going live.
- The entire project was delivered within time, quality and cost parameters.
- Following the success of this project Time Inc. UK will now be moving to Phase 2, utilising their entire electric infrastructure for demand response including onsite generation.

## A word from our client

*“KiWi were very good in giving advice on where we may find energy savings that would not be missed for an hour in our high profile office block. We consider our energy efficiency and integration into the National Grid's Short Term Operating Reserve (STOR) programme with KiWi to be very successful. We continually review our systems in an effort to provide more savings and consider entry into other demand response programmes.”*

**Tony Floyd, Facilities Manager, Blue Fin Building, Time Inc. UK**

## About KiWi Power

KiWi Power is the UK's leading demand response aggregator and has been a key player in the UK market since 2009. We are passionate about driving innovation in technology to create efficiencies, generate commercial opportunities and promote a green agenda. We work confidently with policy makers and system and network operators, navigating the energy landscape to provide clients with robust and best in class technology and hardware.

Combining proprietary hardware and software and experienced teams, KiWi Power delivers significant commercial returns and sustainability benefits to large consumers of electricity, utilities and grid operators.

Demand response is a unique and powerful application using technology to reduce electricity consumption at peak times across industrial and commercial sites. This creates a greener, more cost effective grid, reduces the need for inefficient backup power stations and provides vital balancing requirements and security of supply to system operators and end user sites.

KiWi Power's innovative approach is leading the way in evolving the UK demand response market as well as influencing the design, build and operation of demand response programmes around the world.