



## Jurys Doyle Hotels

*Jurys Ballsbridge Hotel and Towers achieved a 20% reduction in electricity consumption during 2005 through energy awareness and staff behavioural change*

The five-star Jurys Ballsbridge Hotel and Towers is one of 34 properties in the Jurys Doyle Hotel Group plc. The 35,000m<sup>2</sup> complex, located in Dublin, consists of two adjoining hotel blocks. The main hotel comprises 303 bedrooms, two restaurants, two bars and 14 function rooms in addition to a ballroom/cabaret room which can seat up to 700 people. Other facilities include a leisure centre with heated outdoor swimming pool, a business centre and a hair salon. The separate Towers building contains a further 100 bedrooms.

Jurys Doyle Hotel Group is one of Ireland's leading hotel groups, providing almost 7,000 rooms. It employs approximately 4,000 people and has an annual turnover of €285 million. For more information on Jurys Doyle Hotels view the website [www.jurysdoyle.com](http://www.jurysdoyle.com).

### Project Background

In 1998, Jurys Doyle Hotel Group launched an environmental management programme. The programme incorporates a number of different elements including waste and water management as well as energy conservation and management; it was subsequently implemented in the Group's 34 hotel properties.

In 2003, Dan O'Connell was appointed as Group Environmental Manager with overall responsibility for the programme. Around the same time, the Irish Hotels Federation approached the Jurys Ballsbridge Hotel and Towers and Sustainable Energy Ireland with a view to establishing a pilot study on the effectiveness of an energy management programme focused on the effects of staff behavioural change only. Among the key drivers were the rising costs of oil and gas internationally, which have led to significantly increased energy prices, thereby impacting on the competitiveness of the hospitality sector in Ireland.

In late 2004, the Jurys Doyle Hotel Group set targets in each of its 34 hotel properties to reduce energy consumption by 10% by the end of 2005.

The Jurys Ballsbridge Hotel management team chose to employ a bureau service company, BureauScope.com, in order to help it achieve its energy-reduction target. The findings of its energy conservation pilot programme could then be used to educate and inform others within the hospitality sector.

### Complete Energy Management System (CEMS)

CEMS (Complete Energy Management System) is a low-cost, high-impact, energy conservation programme which focuses on using energy awareness and staff behavioural change to achieve energy reductions. A number of other methodologies are also used to ensure that positive behavioural change is continuous, and that positive downward trends in energy consumption are also maintained on a continuous basis. These methodologies include such tools as:

- Performance reporting which uses key performance indicators to rapidly identify areas of poor performance. The initial focus in Ballsbridge was that of base load reduction (achieved by a 'Turndown-KPI').
- Team building with clear definitions of the appropriate role of all participants including the hotel's management team.
- Compliance auditing using the CEMS self-assessment scoring system.

The programme's other key feature is that it provides a structured approach to monitoring and reporting energy consumption. Daily energy consumption reports (for the purpose of identifying waste) are transmitted via the Internet. These reports may be accessed from the bureau service company's website by members of the hotel management team at any time.

Jurys Ballsbridge Hotel and Towers implemented this pilot programme in early 2005. During 2005 the programme focused on electricity conservation only, with a view of moving on to the conservation of thermal energy (natural gas) in 2006.

## Senior Management Commitment

Strategic energy management was embraced at the most senior level by the Jurys Doyle Hotel Group. This commitment was evidenced by:

- An energy policy committing the Group to the elimination of energy waste was incorporated into the Group's overall environmental policy.
- A specific policy target committing the Group to pursue energy reductions of 10% in 2005 was agreed with management teams in each of the Group's 34 hotel properties.
- An energy conservation project was established, with ownership vested in the Group's Environmental Manager.
- A three-person energy team was established in each of the Group's other properties. However, Glenn Valentine General Manager of Jurys Hotel and Towers Ballsbridge decided to commit more extensive resources to the project and appointed a five-person energy team representing various hotel functions/areas including Training, Finance, Leisure Centre and Engineering.

## Immediate Success

Within a period of months following the implementation of the CEMS programme in the Ballsbridge Hotel it was obvious that CEMS was proving to be a significant success. Monthly electricity consumption per room sold decreased by an impressive 20%. More importantly, this level of decrease was maintained throughout the remainder of 2005. (See Figure 1).

The reduction in electricity consumption equated to an actual saving of €56,000 over the 2005 period. This contributed substantially to offsetting the price increases faced by the hotel in 2005. In terms of applying future cost controls in the area of energy consumption, Jurys is confident that these reductions can continue to be maintained and improved upon.

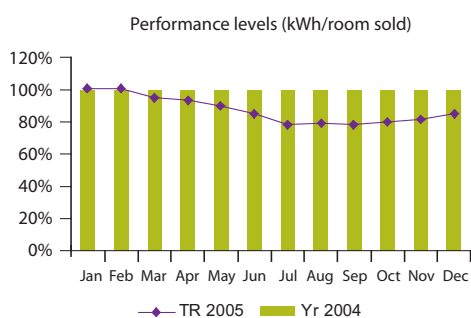


Figure 1 Electricity consumption per room sold - 2004 vs 2005

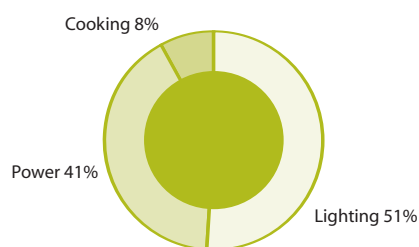


Figure 2 Electricity breakdown

## Key Features

The following are some of the key features of the CEMS programme:

- No initial capital investment required.
- Equally suitable for all property types.
- Can be integrated with the hotel's existing Hazard Analysis and Critical Control Points (HACCP) infrastructure and, as such, becomes auditable.
- Focuses on waste energy identification and reduction.
- It has a unique energy listing and rating system.
- It is non-technical and facilitates broad participation from hotel staff.

*"No matter how big or small your hotel operation you probably have all the elements of the CEMS programme already in place - particularly if you use the HACCP food management system. I suppose you could call this 'energy saving by HACCP'. I would strongly encourage any hotel operation, no matter how small, to implement this programme."*

Dan O'Connell, Environmental Manager, Jurys Doyle Hotel Group

## How Jurys Achieved its Savings

"This hotel has an annual energy bill of €600,000 a year, which is increasing and which needs to be reduced", explains Dan O'Connell, Group Environmental Manager, Jurys Doyle Hotels.

"We chose the CEMS programme because it is totally focused on behavioural change. We did not want an energy-reduction programme that relied solely on inputs from external consultants, or reports from technical experts that required large capital investment. We wanted to know what we as hoteliers could do, what our 400 employees – our waiters, our chefs, our housekeeping staff and our night porters could do – because these are the people we depend on", Dan O'Connell concludes.

Setting up any new programme – especially one that involves a 400-strong workforce – is very time consuming. For this reason, and because electricity consumption accounts for 50% of the Ballsbridge hotel's energy bill, the energy team focused almost exclusively on reducing electricity consumption during 2005.

In order to aid the energy team in prioritising the various actions required, an analysis of where electricity was being consumed was carried out. (See figure 2). Lighting had the largest share; it consumed 51% of all electricity. Power accounted for 41% and cooking accounted for 8%. (Power consumption is the metered electricity used throughout the hotel and covers all sockets, air-handling units, and motor applications.)

## Implementing the CEMS Programme

The following measures were taken to implement the Complete Energy Management System.

**Stage One:** A five-person energy team, led by Gerald Koll, Expenses and Beverage Manager was set up.

**Stage Two:** A total of 33 energy usage zones were identified. These covered every inch of the vast hotel complex. As well as large areas such as the 303 guest bedrooms, laundry, ballroom, bars and restaurants, some small areas such as the kitchen pot wash area and the kitchen dishwasher area were also classified as zones.

**Stage Three:** Six electricity consumption meters were installed at strategic locations around the property. These data loggers were installed and networked using powerline communications which eliminate cabling and expensive re-instatement work. The data loggers were in turn linked to the bureau service company's IT system in Kilkenny.

**Stage Four:** The energy team met separately with the groups of employees responsible for each zone. Employees were advised of the 10% Energy Reduction Project. Employees were then invited to suggest a number of ways in which they might achieve electricity reductions in their particular zone by incorporating small behavioural changes into their everyday work practices.

**Stage Five:** Employees' suggestions were analysed and were compared with a list of proven energy-reduction practices proposed by the bureau service company. A shortlist of electricity-reduction behavioural change actions was then drawn up for each zone.

**Stage Six:** Lists of action points per zone were prepared in poster form, and were distributed to employees. Spot checks were carried out by the energy team on a daily basis (or as necessary) in order to ensure that changes were being implemented. Reports on employees' compliance/non-compliance were discussed at daily/weekly staff meetings.

## Maintaining Involvement

"The success or failure of a behavioural change programme such as CEMS is determined by a number of key factors," says Gerald Koll.

"First, it is essential that at least one member of the energy team carries out spot checks to ensure that the action points for each zone are being adhered to. Supervising employees' compliance is a 24-hour, 365-days-a-year responsibility. At any given time, one member of the energy team is always on duty.

"Secondly, we maintain staff interest in the programme by showing them how they can apply exactly the same energy-reduction techniques in their own homes and save money on their electricity bills. We set up channels of communication through the company magazine, news bulletins and noticeboard displays.

"Finally, we seek to involve guests in the programme by drawing their attention to our environmental management programme and our energy conservation programme through the placement of information cards in guest bedrooms," Gerald Koll concludes.

## Behavioural Change Action in Guest Bedrooms

Significant electrical savings were made in the guest bedrooms by ensuring that:

- A maximum of one 'welcome' light is left on in guest bedrooms, whereas previously, three welcome lights were left on.
- Mini-bar fridges are set at standardised temperatures. (The original settings were generally much higher than this).
- Housekeeping staff unplug the TV when finished cleaning a room (rather than leaving the TV in stand-by mode).

## Behavioural Change Action in Kitchens

The implementation of behavioural change actions in the kitchen has enabled the Ballsbridge hotel to generate significant gas and electricity saving by ensuring that:

- Individual pieces of cooking equipment are turned on just 15 minutes prior to use (if pre-heating is required).
- Fridge doors are kept closed when not in use.
- The dishwasher is turned on only when full.
- Dishwasher temperatures are maintained at 55-65°C (wash) and 82-85°C (rinse).
- Extractors are turned off when cooking equipment is not in use.
- Pots are not washed in running water; they are washed in the sink, with a stopper in place.
- Tap water that is too hot is reported to the maintenance staff.
- Light diffusers are kept clean, to maximise lighting efficiency.
- Lights are turned off when the kitchen is not in use.
- Filters in the extract fans are cleaned regularly, in order to maximise ventilation efficiency and safety.

## Behavioural Change Action in Bar Areas

Significant electricity savings are achieved in the bar areas by ensuring that:

- Air conditioning is switched off when the bar is closed.
- Lights are switched on only when natural light is insufficient for maintaining guest comfort.
- Keg room lights are turned off when the room is vacant; the keg room door is kept closed at all times.
- All lights are turned off when the bar is closed.
- Refrigerator temperatures are set at appropriate levels.



### The Bureau Service Option in a Nutshell

In general terms, the objective of an energy management bureau service company is to provide specialist off-site energy control and management for organisations that lack the critical mass to meet this need from internal resources.

BureauScope.com is one of a number of energy management bureau service companies operating in Ireland. They all have different service offerings at different fee structures. BureauScope.com's fee for its involvement in the Jurys Ballsbridge project includes the following:

- Access to their web-based reporting system.
- Support and training in the installation and implementation of CEMS.
- Compliance auditing system.
- Access to practical advice and specialist techniques developed over a decade of practical energy management.
- Weekly performance reports circulated via email.

As part of its approach to managing an energy-reduction programme in a hotel environment it:

- Helps divide the hotel into zones.
- Identifies energy consumers in each zone.
- Carries out a risk analysis.
- Rates each energy consumer according to whether it has a high, medium or low potential risk exposure to energy waste.
- Offers ideas for behavioural change actions that would reduce energy consumption by each of the identified energy consumers.
- Provides on-site training for the hotel energy team.
- Monitors general energy usage trends; decides when peaks and troughs should occur; alerts the energy team if/when unusual energy consumption peaks occur.
- Prepares a weekly energy consumption report which is distributed to the hotel management team.

*"Taking on the task of reducing energy consumption by 10% a year sounds difficult. However, if you just ask each of your employees to do one or two extra things as part of their normal work tasks every day, then the tasks eventually become routine."*

Gerald Koll, Expenses and Beverage Manager, Jurys Hotel and Towers Ballsbridge

*"This type of programme is about getting into the minds of the employees – involving individuals in how they manage their particular area, showing them how the methods they apply here can also save them money at home."*

Conor Casey,  
BureauScope.com

### Future Plans

During 2005, the Jury's Hotel and Towers Ballsbridge team focused their attention on reducing electricity consumption across the site. During 2006, the energy-reduction programme will place greater emphasis on reducing gas consumption. Plans are also in place to incorporate energy awareness into all staff induction programmes from 2006 onwards.

### Further Information

For further information on energy efficiency options and practices, contact

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