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| B&NES-PC-Spot  **People and Communities Department** | | 11 | |
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**SCHOOLS FORUM**

**Schools Carbon Reduction Programme**

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| --- | --- |
| **Lead Officer** | **Amy Dartington** |
| **Contact details** | [**Amy\_dartington@bathnes.gov.uk**](mailto:Amy_dartington@bathnes.gov.uk) **01225 477054** |
| **Forum asked to decide / steer / be informed** | **For Information** |
| **Time Needed** | **10mins** |

**Progress Report**

**Energy and Carbon Savings**

In 2013/14 Schools achieved some excellent reductions in energy consumption.

In 2013-14, compared with 2012-13 the total gas use across all 78 schools has reduced by 18%, weather corrected this comes out at 6%. Electricity use has dropped by 2.5%. This is really good news as historically electricity use has risen almost every year since 2008.

**% Reductions in Energy Consumption**

The biggest overall carbon reduction in a primary or infant school was a 30% achieved by Saltford Primary School. Saltford reduced gas use by 58% and electricity use by 21%. This was achieved by: enthusiastic use of SystemsLink, installation of a biomass boiler and changing the timings on the electric heating controls for their swimming pool.

Widcombe Junior School came a close second, with a 29% overall carbon reduction, achieved by cutting their gas use by 48% and electricity use by 4%.Widcombe achieved this by putting in place a great example of Schools Energy Management:

*Following the advice of their energy survey they fitted new boiler controls, tackled out of hours waste by setting up a holiday switch off process and correctly setting controls and engaged their eco team in daily energy surveys. As the school says “By alerting adults to their findings daily and changing habits, staff and children were challenged to think about their energy habits and to re-educate themselves to be mindful to save energy.  Now lights and projectors are turned off by the whole school community.*

Somervale achieved the largest carbon reduction in a Secondary School with 18% total carbon reduction, which splits down into 25% reduction in gas use and 9% reduction in electricity use. This was achieved by installing new boilers and impressive commitment from students.

**Heating Controls Project (HCP)**

In autumn 2013 the Schools Carbon Reduction Programme funded Jody Ellis from Verco to re-visit over 30 Schools to adjust heating controls settings in line with the Energy Survey Recommendations. These Schools were also issued with a change log and instructed to use this to record any changes to heating controls settings.

The results show the benefits of adjusting settings, a quick simple and low/no cost action.

Nearly all schools reduced gas use due to the much warmer weather. But those taking part in the project reduced their gas use by 27% compared to 16% for those not taking part.

**Financial Savings**

In 2013/14 compared to the previous year:

* Gas savings total **£108,000**
* Electricity savings total **£29,637**

If similar savings were achieved by all schools, at current prices this would save **£215,474** a year. This represents 10% electricity savings and 20% gas saving.

By carrying out all actions listed in the energy surveys, an average primary school can save **£4000** a year and an average Secondary School can save **£30,000** a year.

**Spend per Pupil**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Secondary | | Primary | |
| Highest Total Energy Spend Per Pupil | £258.30 | Bath Community Academy | £203.25 | Southdown Junior School |
| Lowest Total energy Spend Per Pupil | £65.30 | Ralph Allen School | £31.50 | St Stephens Primary School |
| Highest Total Energy Spend per m2 | £11.77 | Writhlington Academy | £16.85 | Batheaston Primary School |
| Lowest Total Energy Spend Per m2 | £8.07 | St Marks CofE School | £4.20 | St Mary’s Timsbury Primary School |

These figures do not only show relative efficiency as ‘spend per pupil’ is influenced by heating fuel type and pupil density as well as energy efficiency, ICT use and other factors. ‘Spend per m2’ is influenced by mostly by heating controls and heating fuel type but not by building age as the energy data proves that there is no relationship between building age and energy consumption per m2.

These figures have been provided to show the wide range and draw attention to the potential reductions in energy spend.

To see your school energy performance stats please refer to the Energy Performance Reports sent out in September or contact [amy\_dartington@bathnes.gov.uk](mailto:amy_dartington@bathnes.gov.uk).

**Total Potential Savings**

The energy surveys identified total savings of **£423,000** from energy efficiency measures.

Of this, projects with an estimated payback period of up to 6 years are expected to save **£390,000**.

This shows the value of Schools investing in low cost, quick payback measures.

**Further Expected Reductions**

There are much larger reductions still to achieve, and we are on track to an even better improvement next year. Some capital projects are underway but many more are awaiting decisions by governors, or waiting for quotes from contractors.

* Around 20 more schools are considering lighting upgrades – if your school has received your quote from EIC please respond and arrange installation
* Replacement heating controls are being priced up for 25 schools. These will improve thermostatic control, reduce out of hours energy waste and enable remote access to performance data
* We are reviewing the ‘bulk-buy scheme’ before procuring an insulation framework contractor to see if we can improve and speed up the process.

**BANES Energy Smart Team (BEST) Awards**

In February/March 2015 we will be running a BANES-wide energy saving campaign award. There are three prize categories which have been designed to ensure that every school has the chance to win at least one. These are:

* Lowest per pupil electricity use over the campaign
* Biggest percentage reduction in electricity use over the campaign
* Best school-wide campaign

Schools which have already made large reductions, or who cannot compete on lowest electricity use per pupil, will still be able to compete for Best Campaign.

Resource Futures has been contracted to provided support sessions and a resource pack. Support visits are available for the first 16 schools to respond to the offer. The campaign, offer of support and announcement of prizes will be sent out shortly.

**Carbon Reduction target**

The Schools Carbon Reduction Programme was instigated to help schools reduce carbon emissions by 30% in line with the Councils Carbon Management Plan.

Schools currently account for 45% of the Councils total carbon footprint.

This year was the first year that Schools carbon emissions have dropped below the baseline year of 2007/08.

* All fuel types and formats have reduced from last year
* The reduction in electricity is especially good as this reverses the trend for year-on-year increases in electricity use.
* However gas and electricity are both still significantly higher than the baseline year.
* Despite this, carbon emissions are 2% lower than the baseline. This is due to very large reductions in oil consumption resulting from shifts to biomass and gas and reduction in the carbon intensity of grid electricity.