

Direct Dial: 01603 222674
Direct Fax: 01603 222719
E-mail: john.cobb.nps@norfolk.gov.uk

BSG/JEC/TLP

02 September 2004

Dear Headteacher

Re: Energy and Water Management Update

Due to further delegation of finance to schools, deregulation of the energy markets and rising energy and water costs, we believe that our clients will require impartial and independent energy and water management advice.

As schools income is determined by the number of pupils, it does not take into account the type, uses of the building and fuel used.

As a result, many Heads of establishment could find that they have less freedom of action than might be imagined.

This is where the NPS Energy and Water Management unit can be of invaluable assistance, we can offer the following services which will assist is minimising your energy and water consumption and cost. In addition, it will automatically reduce your environmental impact through reduced emissions of greenhouse gases.

1) Energy Monitoring Service

Energy costs could represent over £44 per pupil, on average, we could help you save at least 10% on your fuel and water bills.

Both subscribers and non-subscribers to the BMPP can participate in the NPS Energy Monitoring Service for an additional fee as shown in the Fee Level Table below.

| Population Bands | OPTION 1 Without Annual Visit | OPTION 2 With Annual Visit |
|-------------------|-------------------------------------|----------------------------------|
| Up to 49 Pupils | £0-55p/Pupil | £1-00p/Pupil |
| 50 to 149 Pupils | £0-50p/Pupil | £0-85p/Pupil |
| 149 to 249 Pupils | £0-40p/Pupil | £0-75p/Pupil |
| Over 250 Pupils | £0-35p/Pupil | £0-60p/Pupil |

This service will enable you to benchmark fossil fuel, electricity and water consumption against Government benchmarks for poor, medium and good performance criteria in comparison with similar establishments.

This process will highlight potential problems at an early stage. Follow up specialist advice may be given if requested, on a time-charge or agreed lump sum basis.

Please note: On joint user sites it is essential that all schools participate in the scheme.

Scheme Benefits

- The following services should result in a saving of at least 10%
- A named energy advisor will be appointed.
- The advisor will visit the client once a year to discuss energy related issues providing option 2 has been selected and to investigate other potential savings.
- The client shall send copies of all invoices relating to fuel use and water charges to the consultant at regular intervals.

Please note: If you have entered into various fuel contracts with ESPO we will receive the following information electronically:-

- a) Gas data
- b) Oil data

We therefore currently require copy invoices relating to Electricity, LPG (Propane) and Water.

- The client shall remain responsible for organising payment of invoices.
- The consultant will check the invoices on behalf of the client.
- The consultant will advise the client on the level of tariffs appropriate to the clients levels of demand for water and various types of fuel.
- The consultant will maintain a computer database containing information on all fuels and water data from the invoices, including supplied historical data where available.
- This information will be used to assist the client in managing budgets for fuel and water.
- Monitor consumption and costs, including advising on any anomalies.
- Provide performance indicators to allow comparisons with other similar establishments.

Please note: NPS are currently negotiating with the following suppliers to supply fuel and water data by electronic means for import into the Stark monitoring and targeting database, which

would enable us to produce compound reports and validate data as necessary on your behalf.

- a) Powergen – Electricity
- b) Calor Gas – LPG (Propane)
- c) Anglian Water – Water and Sewerage

This will complete the long term objective of capturing quality energy and water data for use by Norfolk County Council establishments and to satisfy the legal requirements of various Government departments for data submission.

These include KPI's (Key Point Indicators), DfES Energy and Water benchmarks and the measurement of energy and water targets established in the Government Energy White Paper to meet our International obligations.

This process will reduce the impact on school resources by the reduction in the need to copy bills and submit to the Energy and Water Management Unit at County Hall.

It will reduce the impact on paper consumption as data will be transferred electronically.

During this interim period a letter was sent to all Headteachers on the 27th April 2004 requesting an annual reading at the end of each financial year and submitting the actual reads via the Esinet Website.

This request was designed to minimise the impact on all schools as the information would be shared with ESPO to avoid duplication. In addition, it would improve the quality of the data as they would be based on actual readings.

One of the common problems relating to the deregulated energy industry is the infrequent meter reading visits and bills based on estimated readings.

Once we have received two years data we can compare your school's energy and water performance with the previous year.

2) Fuel Procurement Advice

This element of the service will ensure that your school is attracting the most cost effective tariff on each supply matched to your consumption profile.

3) Energy Audits

These will include an energy walkabout, good housekeeping advice, review of controls settings, payback criteria relating to proposed energy saving projects and assistance with grant applications etc.

4) Assistance in Resolving Billing Problems

5) Apportionment of Energy and Water Costs on shared Premises

At present we are working in partnership with Susan Falch-Lovesey the Head of Environmental Service in the Education Advisory Service to produce an energy conservation and environmental strategy in Education. This is based on the 'Action Energy' Whole School approach to Energy Good Practice Guide GPG 343.

It is our intention to participate in a series of seminars/workshops in January 2005 which will offer training to Headteachers, Governors, Bursars and Site Managers/Caretakers on energy related management issues.

These are entitled 'Energise your Classroom', Energy Management for Premises Managers and Caretakers' and 'Energy Action for Citizenship and Wise Resource Management'.

Please contact Susan at the West Norfolk PDC on 01553 766872 for further details.

For your information we have recently submitted a business plan to support the County Council approved Energy and Water Strategy and are now in a position to offer energy audits to schools who need assistance to bring their energy and water performance in line with typical benchmark criteria. On completion of the data capture, individual schools who require improvement will be contacted and offered assistance.

The business plan includes a whole variety of initiatives to implement energy and water conservation, environmental, renewable technologies and sustainability into the County Council Property Portfolio.

In order to achieve the approved targets in the Energy and Water Strategy it will be necessary to engage with all our colleagues across all departments. It is our intention through this strategy to influence design and the standard of maintenance to improve the quality of your environment and the reliability of service.

The Education Sector currently represents 73% of the total energy spend in the County Council. We therefore need your urgent assistance to reduce your energy and water costs and emissions of greenhouse gases in order to reduce the financial impact on your budgets and to meet the statutory targets set by Government Legislation to reduce the impact of global warming.

Please Note: Raw Electricity and Gas costs are expected to rise by 30-40% and will influence the next round of contracts in the financial year 2005/2006.

Energy conservation measures will provide the following benefits:-

- Reduce operating costs
- Increase employee and student comfort and productivity
- Improve cost effectiveness
- Enhance the quality of service and customer care
- Protect the environment

It is our intention in partnership with Norfolk County council to encourage all schools to join the Energy Monitoring Scheme and to mould the level of service to match your needs.

Those schools which have already joined the scheme will receive their energy and water reports with this letter and we hope you are pleased with the information and recommendations. Schools that have signed up for Option 2 will receive a visit during the Autumn term by mutual arrangement.

Those schools that have not joined the scheme, we would request that you seriously consider joining in partnership with the County Council and to take responsibility in minimising the impact of global warming in Norfolk.

In order to assist you in the management of meter readings etc., please find enclosed energy and water information sheets with our compliments.

Finally, we look forward to receiving your instructions and working with you in partnership, by offering expert impartial energy advice.

If you require any further information please do not hesitate to contact the writer or Michael Dawson, Assistant Environmental Officer on 01603 223913.

Yours sincerely
for and on behalf of
NPS Property Consultants Ltd

John Cobb
Environmental Manager

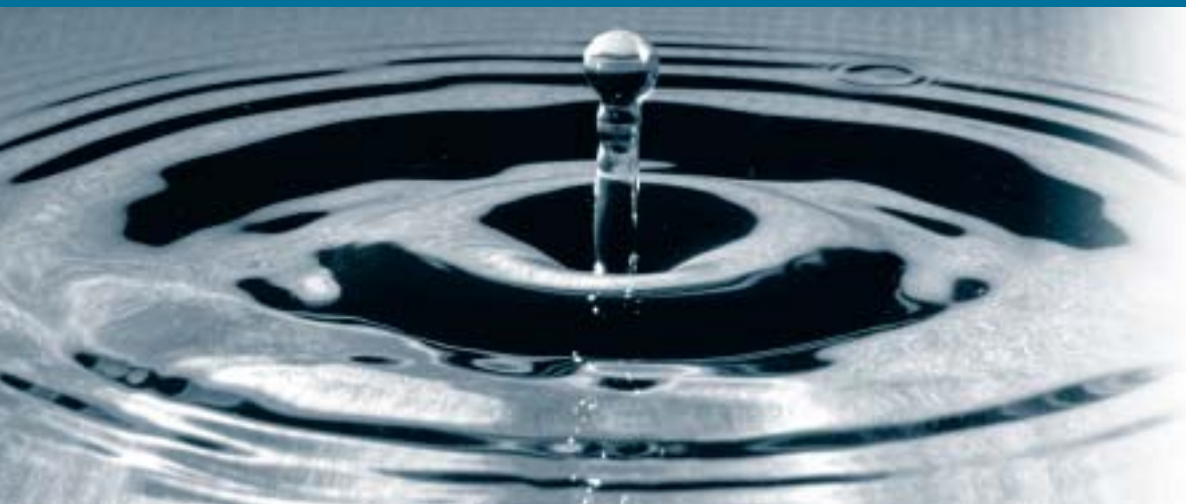
cc. Philip Neave-Support Services Manager-Financial & ICT-Education

Susan Falch-Lovesey-Head of Enviromental Services, Education Advisory Service

Mike Britch-Managing Director, NPS Property Consultants Ltd.

Paul Elsegood-Principal Building Surveyor, NPS Property Consultants Ltd.

Michael Dawson-Assistant Environmental Officer, NPS Property Consultants Ltd.



Property Consultants Ltd



Good Housekeeping

- Review your current tariff and ensure that this is the most appropriate tariff for your needs.
- Make sure taps are turned off after use.
- Discourage hand washing under running water.
- Arrange prompt repair of dripping taps - consider possibility of fitting flow restrictors in taps or replacing with push button type.
- Check if WC cisterns have dual flush facility - consider fitting dual flush syphons or toilet dams.
- Make regular checks for leaks - and investigate leaks which may not be readily apparent, ie. below ground or in floor ducts.
- Check that shower heads are an economic spray type (not the wasteful rose type).
- Limit time spent in showers (especially the run-through type). Consider the installation of self-acting push button timer valves on individual outlets - these shut off water automatically after about 1½ minutes.
- Encourage economic use of water (hot and cold) in kitchens and housecraft rooms - dishwashing, laundering, food preparation etc.

- Swimming pools - avoid unnecessary filling, emptying of pool and back washing of filters (school pools are 20,000 - 100,000 gallons capacity). Check for leaks (unexplained drop in pool level) **and fit heat retention covers when not in use to reduce water loss by evaporation.**

- Maintain check on amount of water being used for horticultural or recreational use.
- Check that automatic cisterns on urinals are not flushing more frequently than at 20 minute intervals - arrange servicing of occupancy-sensing flushing controls. **It is particularly important to ensure that urinal flushing controls are working properly - a standard 2 gallon (9 litre) urinal cistern flushing continuously at 20 minute intervals or less will use about 240 Cu.M water per year at a cost of about £390 (2001/2002 prices). Consumption will be reduced by up to 70% to about 75 Cu.M per year £120 with the Occupancy Sensing Flushing control working correctly.**

Energy & Water Information/Advice

John E Cobb
Environmental Manager
NPS Property Consultants Ltd
Room 219
County Hall
Martineau Lane
Norwich NR1 2SF
Tel. No. 01603 222674
Fax No. 01603 222719

You are responsible for all water after it has passed through the supply company's meter.

Remember

You will be charged for all the water you use or lose. (If connected to a main sewer you will also be charged the sewerage charge for 90% of the metered water supply irrespective of whether the water is discharged into the main sewer or leaks away unused)

Action

Read your water meter(s) regularly (at least once a month).

Most water meters are now the numeric register type. Black figures normally denote consumption in Cubic Metres (Cu.M or M³). Red figures indicate litres (1 Cu.M = 1,000 litres = 220 gallons approx and may be ignored except for leak checking purposes). (See figure 1, right).

Maintain a record of water used - a pattern of usage will emerge.

An unexplained increase in consumption from the norm could provide an early indication of a leak or incidence of water waste.

Check for obvious signs of leaks or water waste outside your control and arrange prompt remedial action as necessary.

If you suspect a serious leak but can find no visual evidence arrange for a check to be carried out as soon as possible.

Checking for leaks

Turn off all water-using appliances (not stop taps). Note meter reading (last 3 digits should suffice). Read again after 1 hour - if the reading has increased there is a strong possibility of a leak. (For schools, a reading after school closes on Friday afternoon and again before school resumes on Monday morning will provide an indication of the possible extent of a leak).

Seek specialist advice from your Property Inspector in the first instance - or from the water supply company.

Important

Leaks are expensive - delay may be costly - read meters regularly.

(If a leak is reported promptly it may be possible to recover the sewerage charges if it can be proved that the water lost did not discharge into the premises main sewerage system in the normal way).

FIGURE ONE: Types of Water Meter



Numeric Register

Reads 20694.780 m³



Clock Face Register

Reads 5760.175 m³

**For good housekeeping advice,
see overleaf**

Water Consumption

As a basis for estimating annual water consumption for budgeting purposes or as a cross check on actual consumption, primary and secondary schools without swimming pools should have a water consumption of about 3.68 - 3.82 Cu.M of water per pupil per year. Consumption in excess of 5 Cu.M per pupil per year should be investigated promptly, first by checking that the Good Housekeeping Measures below are being adhered to and that Urinal Automatic Flushing controls are functioning correctly.

If no obvious reason is apparent for the high water consumption, action needs to be taken to check for hidden leaks below floor level inside the buildings or externally underground between the water meter and the buildings.

Schools with swimming pools in year-round use or with large numbers of showers in regular use would normally use 4.25 - 4.86 Cu.M water per pupil per year or more if community use is included.



Energy Monitoring Scheme

Seriously consider joining the Energy Monitoring Scheme as it will assist you in identifying how well you are performing against official energy and water benchmarks, and other similar schools. NPS will ensure that you are on the most appropriate tariff to reduce your school's energy bills.

Contact

the NPS Environmental Manager at the address below if you require any further information or advice about any of the above issues or any other matters relating to Energy or Water use in your premises.

Energy & Water Information/Advice

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Environmental Manager
NPS Property Consultants Ltd
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Maintain

a record of all Energy and Water Bills.

Send

copies of all your Energy and Water Bills to the NPS Environmental Manager at the address overleaf as soon as possible after payment or clearance for monitoring purposes. Please note

it will not be necessary to send oil or gas bills if you have an ESPO contract.

Find Out

where **all** your meters are and how to read them.

Read

all meters regularly (at least monthly). Keep a check on consumption and build up a "Pattern of Actual Use" as many of the bills will be based on estimated readings.

Record

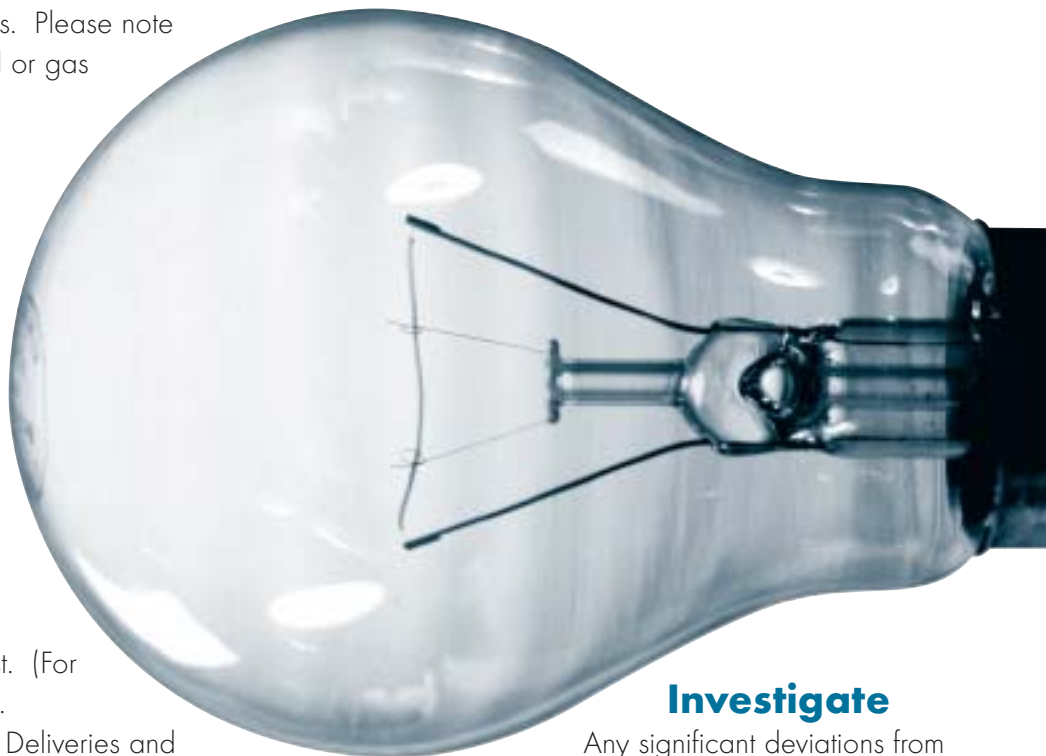
meter readings, consumption and cost. (For unmetered fuels such as fuel oil, L.P.G. and Calor Gas maintain a Record of Deliveries and Stocks in Hand).

Check

all bills against meter readings or your own records. In the case of unmetered fuels, such as fuel oil, check that deliveries correspond with the suppliers' Delivery Note.

Do not pay

Estimated accounts (usually denoted by an "E" following Present Meter reading) unless you are satisfied that the estimated consumption is reasonably close to your own records. If this is not the case telephone the Supply Company immediately. Provide them with a Customer Reading and request a revised bill. (Customer readings are normally denoted by 'C' following the meter reading on the bill).



Investigate

Any significant deviations from the normal or expected pattern of use.

Understand

How electricity, gas, fuel oil and water tariff contracts and pricing structures work. Make it your business to find out what price you are paying.

Climate Change Levy

Check whether you are eligible for exemption from the C.C.L. If you require advice contact the NPS Environmental Manager.

