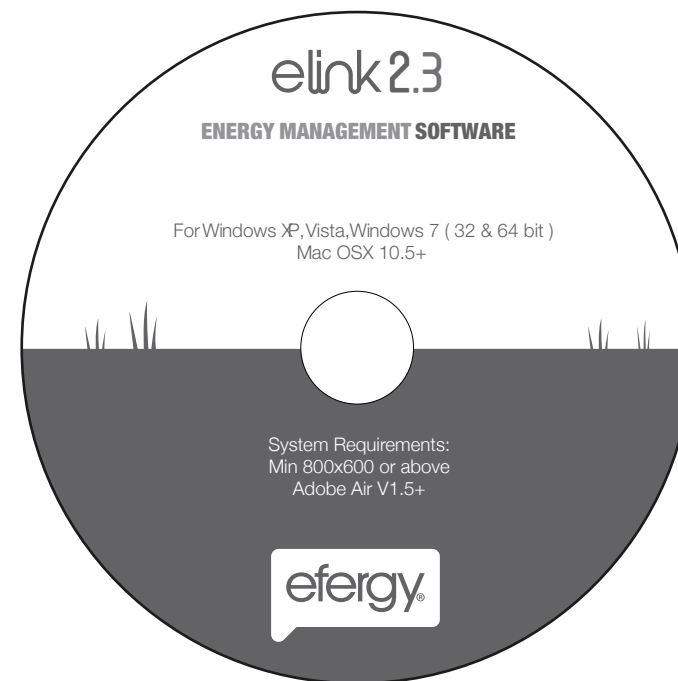




MONITOR REDUCE SAVE

# eLink 2.3

ENERGY MANAGEMENT SOFTWARE



INSTRUCTION MANUAL

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# INTRODUCTION



**elink 2.3** is an energy management tool to help you increase your understanding and awareness about energy consumption. **elink 2.3** will also help you to:

- Use the data from your **efergy** wireless monitor to produce graphs and demand curves for your energy consumption
- Help compare different tariffs that could reduce energy costs
- Discover the advantages of shifting consumption to lower tariff rate periods

**elink 2.3** is a compliment to your **e2** or **ecotouch** wireless energy monitor. It also fulfils the same purpose as an **efergy** monitor when used with our **USB Dongle** product, using your computer monitor to view your real time energy data rather than an **e2** or **ecotouch** (see page 19 for more details on the **elink's** 'Current' feature). Some extra settings need to be set in order for the **elink** to perform in sync with the **USB Dongle**. Points where features or settings only relevant to either the **e2**, **ecotouch** or **USB Dongle** will be highlighted clearly throughout this manual.

## Ask Us

If you have any questions about using your **elink** software please check out the FAQ section at our website or email our support team at:

**software@efergy.com**

We aim to answer all customer support emails within two working days.

# GETTING STARTED WITH ELINK

## INSTALLATION

### Prior to Installation

- Please ensure you have Adobe Air V1.5+, Adobe Reader (or equivalent software) and Microsoft Excel installed before running the installation. MS Excel for Mac should be used as **elink** excel energy report files are not compatible with Mac Numbers.
- If you are re-installing the program, backup your data, uninstall any previous versions of **elink** software and delete any **elink** files within 'Program Files'. You can leave the driver files ('FTDI' & 'CP210X') installed if you wish in order to save time during re-installation. This will allow you to select these pre-installed drivers when prompted during **elink** installation for Windows.
- The date and time of your **efergy** device should be same as to your computer. If the difference is more than one hour then your computer will be unable to download any data. Please adjust this before connecting the device.

### PC Installation

Insert your **elink 2.3** CD into your PC, run the installation setup file and follow the setup instructions. **elink 2.3** has been designed to run on Windows XP, Windows Vista and Windows 7 (both 32 & 64 bit versions). In Vista and Windows 7 right click the set-up file and install by choosing '**Run as administrator**'.

### Mac Installation

Insert the CD into your Mac and first install the **elink 2.3** application file located within the '**for Mac**' folder. Next manually install each complimentary USB driver, named 'FTDI' and 'CP210X'. These are for the USB connection to your **efergy** product.

## USING ELINK

### Navigation

**elink 2.3** is split into two main sections; a tool bar on the left side of the application and the data display showing your downloaded energy data on the right. The tool bar is made up of a main menu, sub-menu and application controls. The data display also features interactive controls that allow you to change the data displayed on-screen.



# GETTING STARTED WITH ELINK

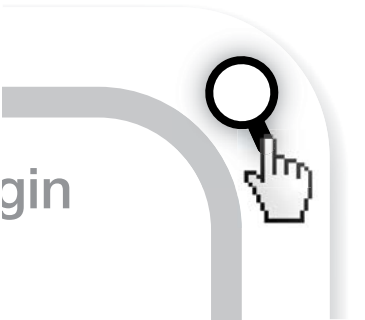
## USING ELINK

### Moving and Re-sizing the Window

The **elink** application window can be moved around the screen by simply clicking and holding the transparent border around the edge of the window and dragging your mouse to the position you wish to move it to.

**elink** has two viewing modes to choose from, allowing you to resize the application window. These are; ‘Normal’ and ‘Large’. ‘Large’ shows the application window at it’s biggest and will be set to appear in this mode everytime **elink 2.2** is launched.

You can switch to the ‘Normal’ view by clicking the **magnifying glass** icon in the top right of the application window. If you double-click this icon in either ‘Large’ or ‘Normal’ views a white background will be applied, hiding other applications that may be open. You can exit this isolated viewing mode by simply double-clicking the **magnifying glass** icon again.



You can hide the **elink** application window by clicking the **elink icon** on your desktop taskbar once. This will not close the application. It can be revealed by repeating the action.



**IMPORTANT:** The values on the wireless monitor and elink software may vary from one another. Some data sets can be interpreted differently. You may find that the data on the display differ to that on the PC.

The wireless electricity monitor and elink cannot be used as a comparison to your electricity meter. Electricity meters have to conform to much stricter guidelines and testing procedure, which are not applicable to wireless monitors. All data collected from the efergy products should be for reference only.

# ADJUSTING YOUR SETTINGS

## CONFIGURING YOUR ELINK DATA SETTINGS

Click on the **‘Settings’** button within the Application Controls to setup your elink software. This needs to be done before any data is collected from your efergy device.

**NOTE:** Textboxes with red borders simply mean that the data in that particular box has been changed by the user and needs to be saved to take affect.

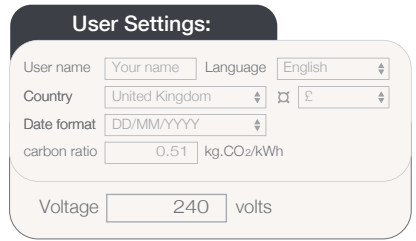
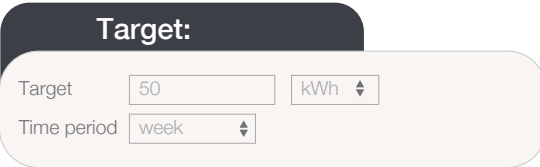
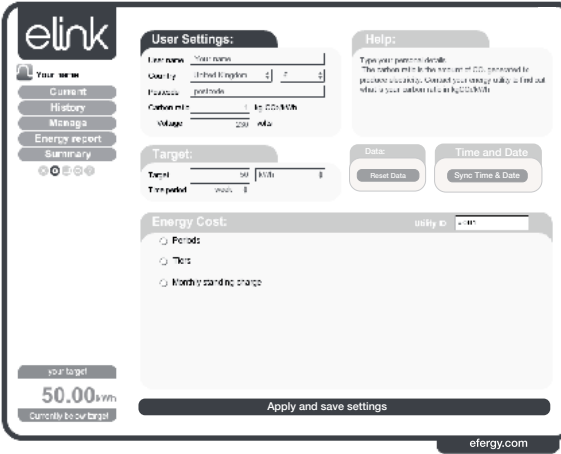
### User Settings

Please enter your information into the boxes, such as username, country, postal code and carbon ratio amongst others (for carbon ratio please refer to your energy supplier). If a USB Dongle is connected to elink you will also need to set the voltage your household mains system runs on, e.g. a UK household usually runs on 240V.

### Target\*

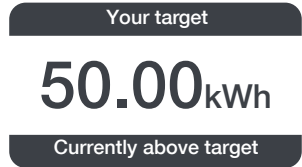
elink allows you to create your own consumption targets. Set your energy consumption target by defining the following parameters:

- Target amount: Please enter the amount for analysis.
- Your type of plan: Please choose a target setting between kWh, Cost or Carbon Emissions.
- Time period of your plan: Define periods for comparison – daily, weekly or monthly plans.



### Voltage

This setting will only appear if a USB dongle is connected to your computer.



### Target Indicator

This will change colour depending on whether or not you are on budget. See next page for more info.

# ADJUSTING YOUR SETTINGS

## CONFIGURING YOUR ELINK DATA SETTINGS

### Target Indicator

In the bottom left hand side of the interface you will see an indicator that displays your current usage level according to the consumption target you set (see image on previous page). This will change colour from green to red depending on whether or not you are below or above your target respectively.

**NOTE:** Setting a plan requires an understanding of your average consumption. We recommend using your monitor for a short period of time before setting a plan in order for you to benchmark your typical energy usage.

### Reset Data

If you want to reset the data, click on the **‘Data’** tab and select **‘Reset Data’**, a message will appear confirming your wish to erase your data, click **‘OK’** if you are sure. This will erase all of your current user setting and collected data. If you do not wish to delete your user settings and data click **‘Cancel’**. This will not delete any data stored in the devices.

### Sync Time and Date (USB Dongle/ ecotouch only)

If you connect a **USB Dongle** or **ecotouch** product to your computer whilst running **elink** the software will allow you to sync the time and date to make sure both the device and software uses the same time settings. If the date and time of your **USB Dongle/ ecotouch** and your computer have a difference of greater than 1 hour, then your computer will be unable to download your energy data. To sync your **USB Dongle** connect it to your PC/Mac, click on the **‘Time and Date’** tab and select **‘Sync Time and Date’**, a message will appear confirming your wish to sync your date, click **‘OK’**. This will match the same time that your computer operating system displays.



Data:

Reset Data

Time and Date

Sync Time & Date

### Sync Time/ Date

This setting will only appear if a USB dongle or ecotouch is connected to your computer.

Note: The **‘Sync Time and Date’** button only appears when the **USB dongle/ ecotouch** is connected, this button will not be available when the **e2** is connected. When using the **e2** you will have to manually set the time and data on the display, then connect and collect data.

# ADJUSTING YOUR SETTINGS

## ENERGY COSTS AND TARIFFS

Before setting your tariffs please make sure you have your energy bill to hand. It contains all the information you need to get started with **elink 2.3**.

### Utility ID

You can add a name to the energy cost information before you enter the details. We recommend you name it after your electricity supplier (Utility) and tariff so you can easily identify it against others you add through the **‘Add Utility’** feature later on to calculate potential savings made by switching suppliers (see page 29).

### Multiple Tariffs

If you have dual or multiple tariff periods, click **‘Add period’** for additional tariff intervals. The charts to the right show examples of four typical tariff scenarios.

### Naming Units

Set a name for the tariff unit, click in the first box (e.g. peak or off-peak). Set the **charge** in the next box, then set the **time start**, **time end**, **day start** and **day end** in the other boxes.

### Testing

To confirm your time start/end and your day start/end, click the **‘Test periods’** button to make sure everything is entered correctly.



## Energy Cost Setup Examples

Please check your utility bill for your tariff plan and rates

Energy Cost:		Utility ID #001					
● Period							
	Tariff unit	Charge	Time start	End	Day start	End	Add period...
p1	Single tariff	0.1	00:00	00:00	Mon	Sun	⊗

### Single fixed tariff

This setup shows that one tariff is paid at a fixed rate of 0.1 (£/ €/ \$) all day, every day of the week.

Energy Cost:		Utility ID #001					
● Period							
	Tariff unit	Charge	Time start	End	Day start	End	Add period...
p1	Dual Off-peak	0.1	06:00	17:00	Mon	Sun	⊗
p2	Dual Peak	0.15	17:00	06:00	Mon	Sun	⊗

### Dual tariff

Two tariffs are used, one at a high peak rate and another at a lower off-peak rate. The two rates are entered as two periods, day and night (p1 & p2), to complete 24 hours.

Energy Cost:		Utility ID #001					
● Period							
	Tariff unit	Charge	Time start	End	Day start	End	Add period...
p1	Wkday - Day	0.1	06:00	17:00	Mon	Fri	⊗
p2	Wkday - Night	0.15	17:00	06:00	Mon	Fri	⊗
p3	Weekend	0.2	00:00	00:00	Sat	Sun	⊗

### Weekday/ weekends

Here the peak/ off-peak system is used on weekdays but a higher flat rate is paid on the weekend. 00:00 to 00:00 is entered on Sat/ Sun to establish 24 complete hours.

Energy Cost:		Utility ID #001					
● Period							
	Tariff unit	Charge	Time start	End	Day start	End	Add period...
p1	Wkday - Day	0.1	06:00	17:00	Mon	Fri	⊗
p2	Wkday - Night	0.15	17:00	06:00	Mon	Fri	⊗
p3	Wkend - Day	0.2	06:00	17:00	Sat	Sun	⊗
p4	Wkend - Night	0.25	17:00	06:00	Sat	Sun	⊗

### Four tariff rates

Here the speak/ off-peak system is used for both weekdays and weekends, splitting both into day and night higher rates creating four periods (p1-4)

# ADJUSTING YOUR SETTINGS

## TIERS AND STANDING CHARGES

### Tiers

You may pay for your energy on a tier based tariff scheme where you pay one rate per kWh up to a certain number of kWh and then a different rate for a second lot, or tier, of kWh. For example 5 cents (0.1) for every kWh used between 0-100kWh and 10 cents for every kWh used between 100-200kWh. You have to first add a new tier and establish the tier rate from 0kWh and then add another tier to confirm the upper limit (e.g. 100kWh). This can then be repeated to create a second tier and rate.

It is also possible that you pay for your energy using time (period) based rates as explained on the previous page, but also pay an extra charge based on a tiered system. For example, it is Monday and so you pay 5 cents per kWh on a weekday, but you also have to add 10 cents to that kWh because you have entered your second tier of 100-200kWh of energy use. This means altogether you would have to pay 20 cents per kWh. **elink** allows you to program this scenario. Please refer to the example on the next page.

### Monthly Standing Charge

This is a fixed amount you may pay to your energy supplier as well as a an amount per kWh based on a time or tier tariff scheme. Check your energy bill to find this out. If this is given on your bill as a quarterly figure, divide it by 3.

### Applying & Saving Your Settings

Once you have your User Settings, targets, time and **energy cost** set up you can click **‘Apply and save settings’**.

## Energy Cost Setup Examples

Please check your utility bill for your tariff plan and rates

Energy Cost:

Utility ID #001

Period

Tiers

t1

0k

Wh/ month

0.05

£/kWh

t2

100

kWh/ month

0.1

£/kWh

t3

200

kWh/ month

0.1

£/kWh

Add tier...

Monthly Standing Charge

Energy Cost:

Utility ID #001

Period

Tiers

p1

Weekday

0.1

00:00

00:00

Mon

Fri

p2

Weekend

0.15

00:00

00:00

Sat

Sun

Add period...

t1

0k

Wh/ month

0.05

£/kWh

t2

100

kWh/ month

0.1

£/kWh

t3

200

kWh/ month

0.1

£/kWh

Add tier...

Monthly Standing Charge

Energy Cost:

Utility ID #001

Period

Tiers

Monthly Standing Charge

0.1

£/kWh

### Two tier rate

Three tiers must be added to establish the rate from 0kWh. This shows that 5p is paid between 0-100kWh and 10p is paid between 100-200kWh. 10p is also paid for any kWh consumed over 200kWh.

### Period & tier tariff

You can also create a create that includes both time & tier based rates. Just adapt the example shown to match your particular tariff scheme. Check your utility bill for the type of tariff scheme you use.

### Standing charge

A monthly standing charge can also be set as your utility may charge you this instead or on-top of other tariff options.



# ELINK FEATURES

## COLLECTING DATA

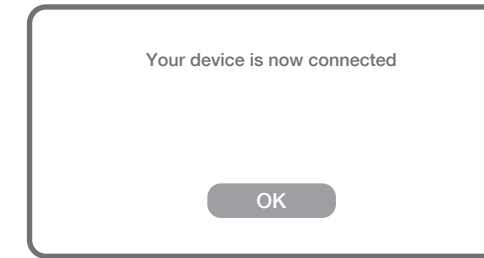
When you have finalised your **settings** you will need to collect the energy data from your **efergy** device. First make sure **elink 2.3** is open before using the USB cable supplied with your device to connect it to your computer. A message will appear stating that the device is now connected and the **elink icon** will change from grey to green in the top left of the **elink** window next to your username. Depending on your computer spec it could take between 10-30 seconds for the device to be recognised. If it is not recognised try plugging it into a different USB port.

Once the connection has been confirmed click the **‘Collect Data’** icon within application controls under the main menu to download the energy data to **elink**. This may take longer the first time data is collected as the USB drivers auto-configure to match the device. The process will be much quicker the second time data is collected.

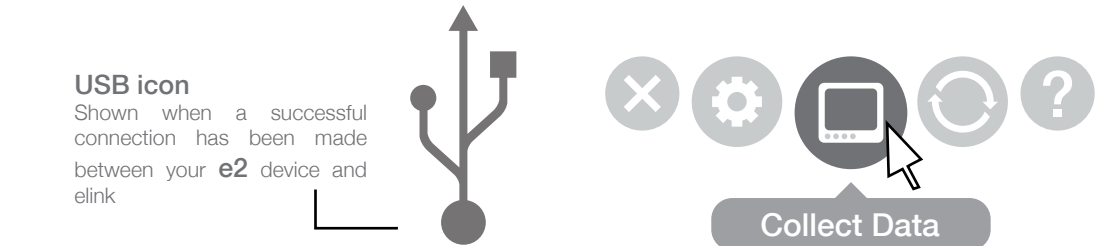
### Using Elink to Collect Data from Multiple Devices

You cannot view multiple sets of data downloaded from different **efergy** devices on the same instance of **elink**. This is because **elink** is designed to simply update the energy data previously downloaded. However it is possible to collect data from several devices using one instance of **elink** and review the energy data in the form of pdf and excel energy reports by following these steps. Repeat the steps for each device:

1. Create a folder for each device on your computer first to download the reports to.
2. Connect the device to the computer using the supplied USB cable
3. Delete the locally held data in elink using the ‘Reset Data’ option within the settings
4. Click ‘Collect Data’ within application controls to download from the device
5. See page 33 to learn how to create an energy report for the newly download data
6. Save the energy report (pdf & excel files) to one of the folders your created earlier



**elink logo**  
Changes from grey to green when a efergy device has been connected to elink via USB.



**NOTE:** The **efergy e2** monitor will display a USB icon on-screen to signify that data is ready to be collected from the device. You will have a five minute window within which to download data from the monitor. After this period the monitor will revert back to displaying real-time energy data sent by your transmitter. You will not be able to download data when the monitor reverts back to this mode. To re-enable data collection unplug the USB cable connected to the monitor from your computer, wait 10 seconds and then re-connect it. The USB icon should re-appear to signify that data can now be downloaded.

# ELINK FEATURES

## SUMMARY

The **Summary** page is the first screen you will see after launching **elink 2.3**. It allows you to review total **Energy (kWh)**, **Cost (in your currency of choice)**, and **CO<sub>2</sub> emitted (kg)** either consumed or output at daily, monthly or yearly intervals as well as the **Max Power** recorded during the same intervals. To move between the three types of information simply click the appropriate tab shown in the data display window.

This feature should give you a general overview of your consumption habits before using the other features that **elink** offers to trace trends and evaluate more detailed information.



# ELINK FEATURES

## CURRENT USAGE (USB dongle/ ecotouch only)

Once you have entered your settings details, including setting the voltage if using a **USB Dongle**, click the **Current** tab and you will be taken to the **elink** current screen. Here you can:

- See your real-time usage of Power (watts)
- See what your current energy usage is in cost per hour
- See your CO<sub>2</sub> emissions per hour based on your current energy use

After collecting data, you will also be able to view:

- Total energy consumption today
- Electricity used today (kWh)
- Total cost of energy consumed
- Overall CO<sub>2</sub> emissions

**IMPORTANT:** This Current screen will only appear if a **USB dongle/ ecotouch** device is connected to your computer. When using an **e2** the **Current Usage** feature is not available.



# ELINK FEATURES

## USAGE HISTORY

Click on the **History** tab to see a review of your energy consumption history. Features include:

- Review your daily, monthly and yearly usage of your electricity, in kWh, your costs and CO<sub>2</sub>

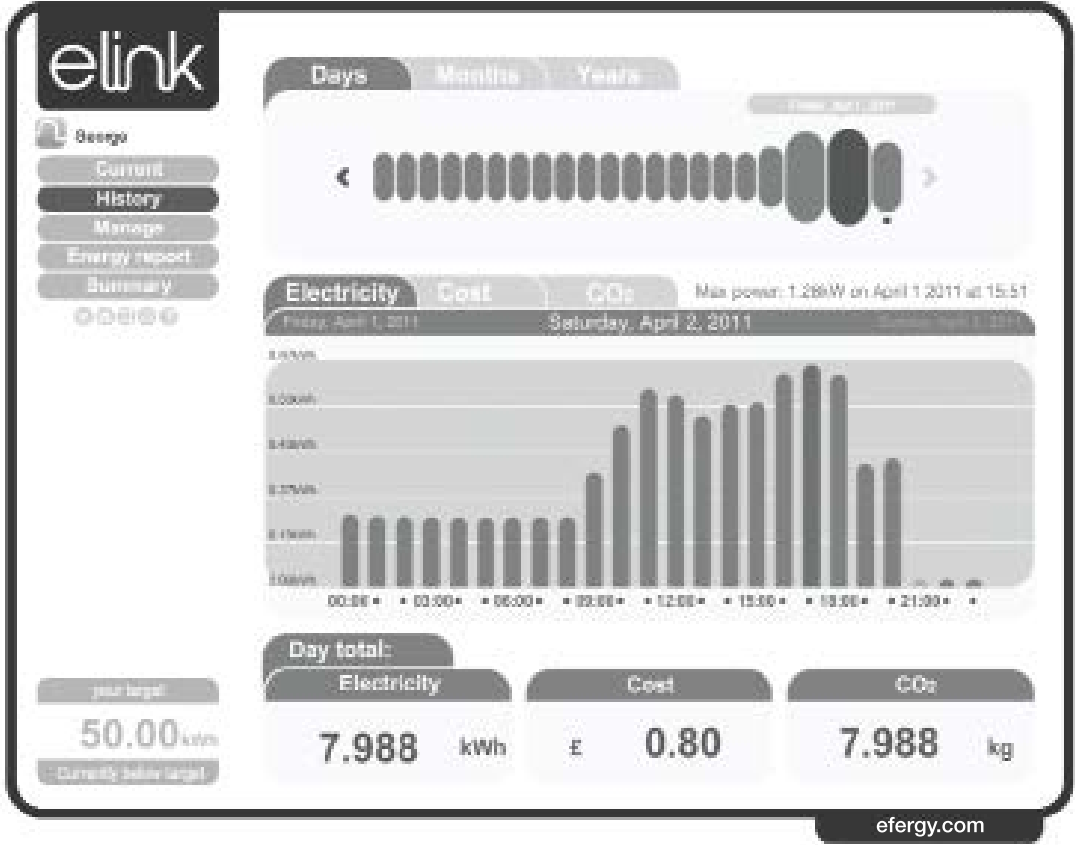
- See a complete historical breakdown of your usage day by day, from the moment of installation, to identify peak usage periods

- Red and green coloured bars are used to signify which are the highest and lowest periods of consumption respectively throughout the historical data charts.

- A Max Power reading is recorded and shown relative to the period displayed in the chart. This reading (kW) is time-stamped with a unique date and time and is not related to the red bar used to show the period of highest consumption (kWh) described in the point above.

- **Add Stickie** - this allows you to track and follow your consumption behaviour by adding notes to points on the graph. (see **Adding Stickies** on the next page)

**IMPORTANT:** Please note by changing the date and time backwards and forwards on your monitor may lead to incorrect data displayed on your monitor and **elink** software. Avoid doing this unless completely necessary.



# ELINK FEATURES

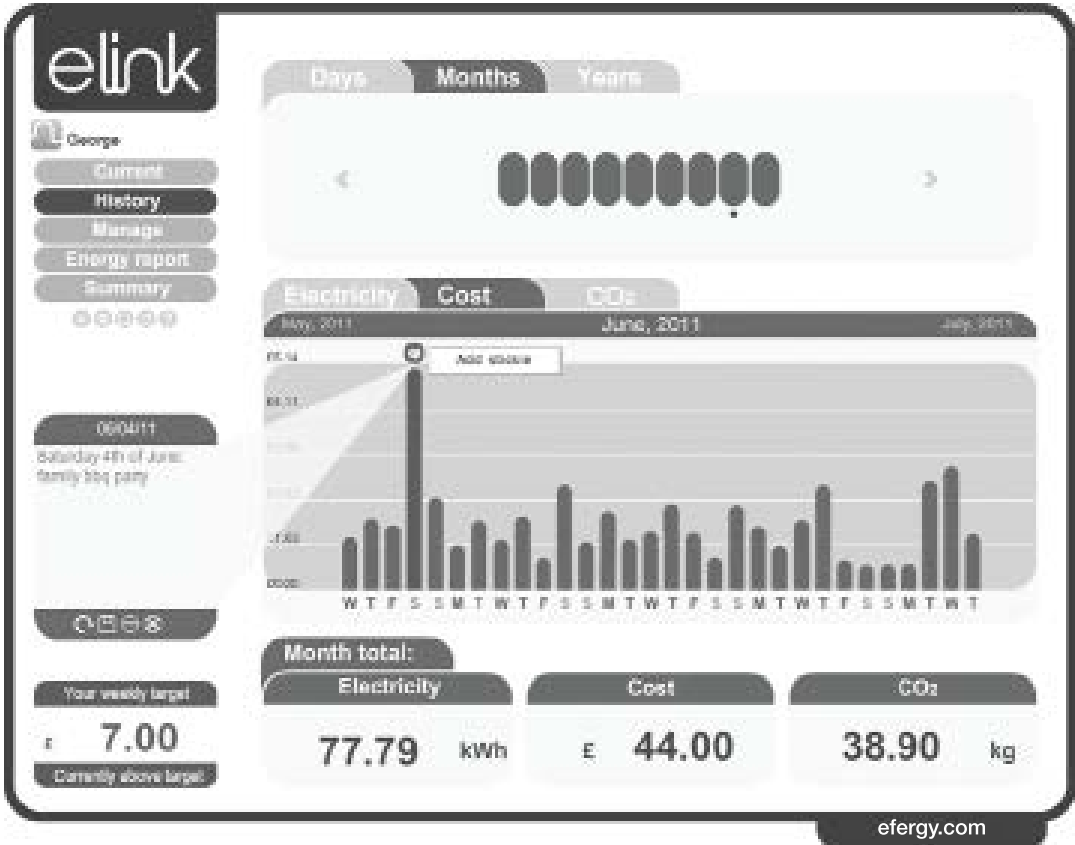
## ADDING STICKIES

The new **Add Stickie** function on the **History** page allows you to add your own personal messages to each of your energy records.

This will help you track and follow your energy behaviour in the home. This information will be recorded and displayed when you create your energy reports so others can see the details that you have added.

Click on any bar in the graph and choose the **Add Stickie** function. Next, type in a relevant message to explain this point on the graph (e.g. Family BBQ Party). Press the **save** icon below to add your stickie and press **OK** to return to the graph.

You can right click on the stickie to delete it. Click **Yes** to delete it or **No** to exit without deleting.



# ELINK FEATURES

## ENERGY DEMAND

The **Manage-Demand** tab allows you to review how much energy your household demanded from the grid and consumed over various time intervals in kW. Click the **Daily**, **Weekly** or **Monthly** tabs to display the respective data.

It also displays the estimated total cost per year and allows you to track any savings you have made by lowering consumption. These figures depend on what price point you have set your tariff data at.

### Time of Use Tariff Tool

If you have a dual tariff setup that includes a peak and off-peak cost during the same day (i.e. one rate for the daytime and another for night) you can use elink to see if you would save money by changing when you use your energy. You can select one of three **‘Shift’** tabs that control the period of energy use to be re-calculated using your off-peak tariff rate instead of the higher rate you paid. Think of the **‘Shift 2hrs’** tab as a washing machine cycle. You can see how much money you will save shifting the use of this high consuming appliance to an off-peak time. This tool is not available if you have set up a single period tariff scheme in your **elink** settings.

### Add Tariff

You can use the add tariff tool to modify your current tariff options and check if switching to a multiple tariff scheme would save you money. This is particularly useful if you currently have a single tariff rate and want to quickly add a second period to your scheme that includes a cheaper off-peak rate in order to use the **Time of Use Tariff Tool** featured above.



Use the arrows below the graph to move the interval forward and backwards through the period.

**Shift Hours Tool**  
Click each of the tabs to shift a period of either 2, 4 or 6 hours of your energy use to an cheaper off-peak rate.

The shaded section within the peak tariff period shows the interval to be re-calculated at the lower rate.

Add tariff

	Unit Cost £	start hour	end hour
p1:	<input type="text" value="0"/>	<input type="text" value="00"/> <input type="text" value="00"/>	<input type="text" value="00"/> <input type="text" value="00"/>
p2:	<input type="text" value="0"/>	<input type="text" value="00"/> <input type="text" value="00"/>	<input type="text" value="00"/> <input type="text" value="00"/>
	<input type="button" value="check"/>	<input type="button" value="clear"/>	

### Add tariff tool

Use this tool to alter your tariff settings quickly to create a dual tariff rate and unlock the use of the Time Shift Tariff tool. The start and end hours must be defined and complete a full 24 hours.

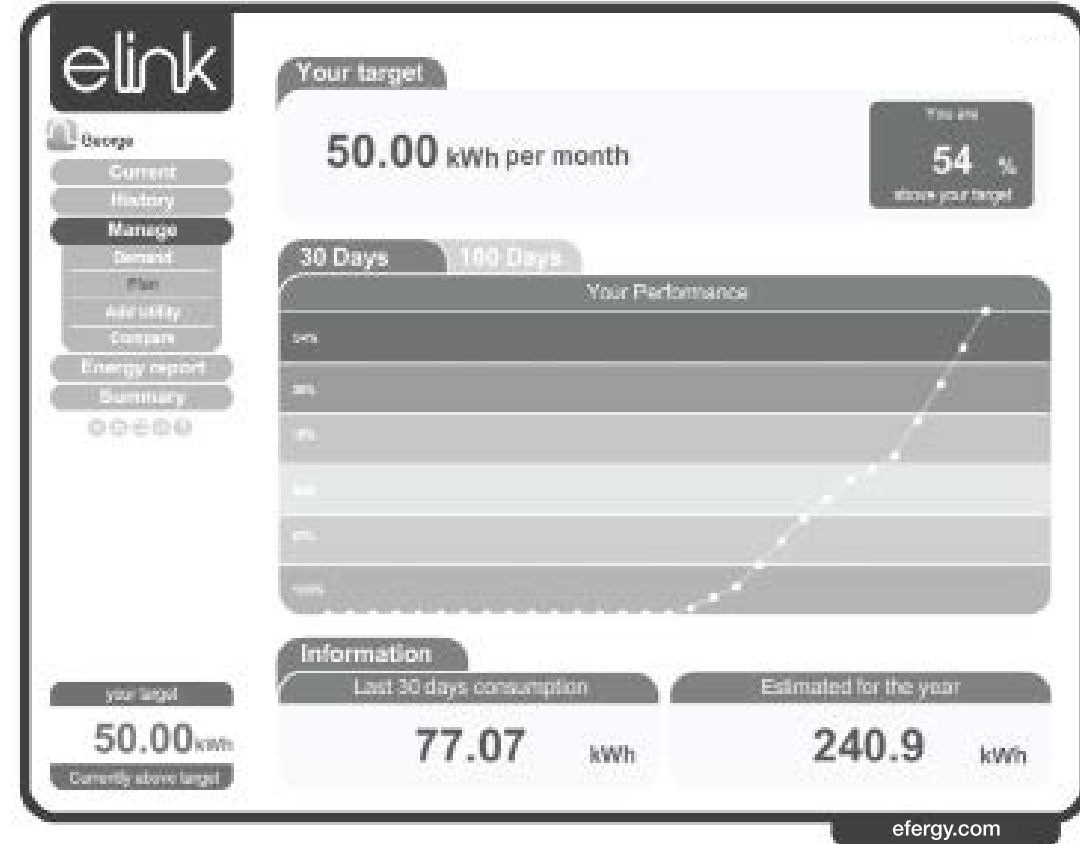
# ELINK FEATURES

## ENERGY PLAN

The **Manage - Plan** tool allows you to plan by plotting your consumption patterns within 30 and 100 day intervals.

A percentage figure charts how far above or below you are according to your usage target.

The **Information** tab also tracks how much electricity you have consumed during the selected interval as well as an estimated figure for your projected consumption over the year.



# ELINK FEATURES

## ADD UTILITY COMPANY TOOL

You can use this tool to add a variety of energy providers to the **elink** system and then compare them against one another via an easy to understand graphical interface.

To add a utility click on the **Add Utility** tab and first input a name for the new entry within the '**Utility ID**' textbox, such as the name of the utility. Next complete the tariff information for the tariff scheme the utility company offers. The same tariff options are available to you as were available within the energy cost tab featured within the **elink** settings. Once this has been input, click **Add** to add the new utility provider to your list and then click **Save Changes** to save and exit.

You will have to restart **elink** before this new utility information can be used to compare costs with your existing energy supplier.

You can also delete any unwanted providers previously input by selecting a **Utility ID** from the '**Saved Utilities**' drop-down menu and clicking the '**Delete**' button.

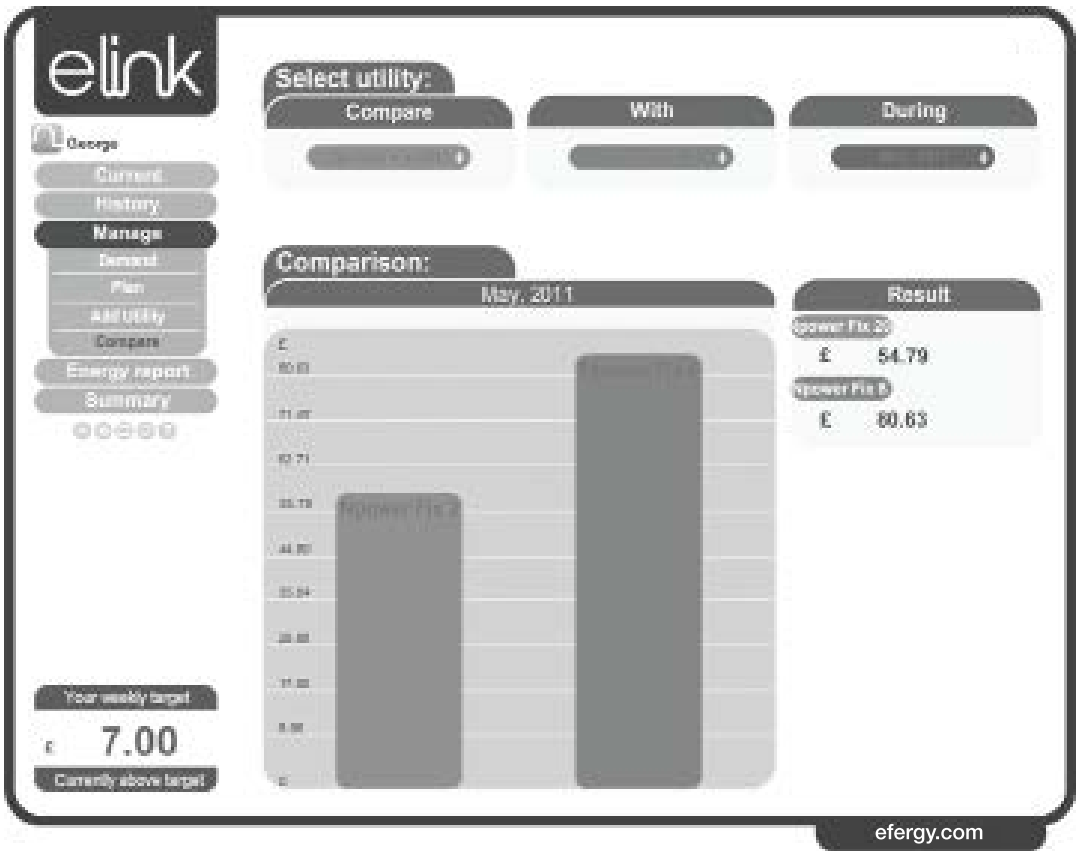


# ELINK FEATURES

## COMPARING UTILITY COMPANIES

This tool allows you to compare tariffs on offer between different utility companies to find the ideal price for you. Make sure to input the appropriate data beforehand via the **Add Utility** tool (see previous page). Once you have added this information you can use the features that the **Compare** tool has to offer.

Select from the list of energy providers you have added to calculate how much you could save by either staying with your current provider or switching to another. **elink** takes your energy history to calculate how much you could have saved a month of previous use. You can select which month you want to choose from via the drop-down menu labelled '**During**'.



# MANAGING ENERGY ELINK FEATURES

## ENERGY REPORTING

This unique feature allows you to easily create daily or monthly energy reports. Simply select the dates or months you want to capture and create your personalized PDF and Excel documents.



# ELINK FEATURES

## BACK UP AND RESTORE

### Backup Locally

To backup your data shown within elink click on the **Backup** icon (within application controls). Select **Backup locally** then make a New Folder. Label or name the folder according to your preference and then click 'OK'. 'Data backup successful.' will appear, Click 'OK' to complete this procedure.

### Restore Locally

To restore your data from a folder located locally on your computer's hard drive click on the Backup icon (within application controls). Select Restore. Then select the appropriate folder and click **OK**. 'Data restore successful. Please quit and restart elink.' will appear, Click 'OK' to complete this procedure and restart **elink**.

**Note:** When **Restoring** your data remember to select the appropriate folder label (do not select any files within that folder) before clicking **OK**.

