

User Guide for the Opportunities Database (Version 0.01)



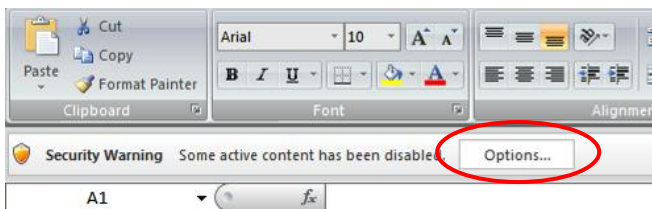
Client Carbon Trust

The following paragraphs give an overview of the Opportunities Database (Version 0.01). This tool is designed for use within the Aggregates industry sector and aims to provide a means of keeping all energy saving projects from various sites on a common database.

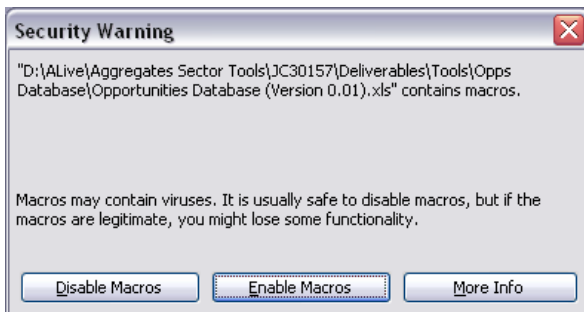
Enable macros:

For the tool to function it is necessary to enable the macros.

In Excel 2007 a Security Warning bar will appear right above the formula bar. Click the button 'Options...' and then select 'Enable this content' and click OK.

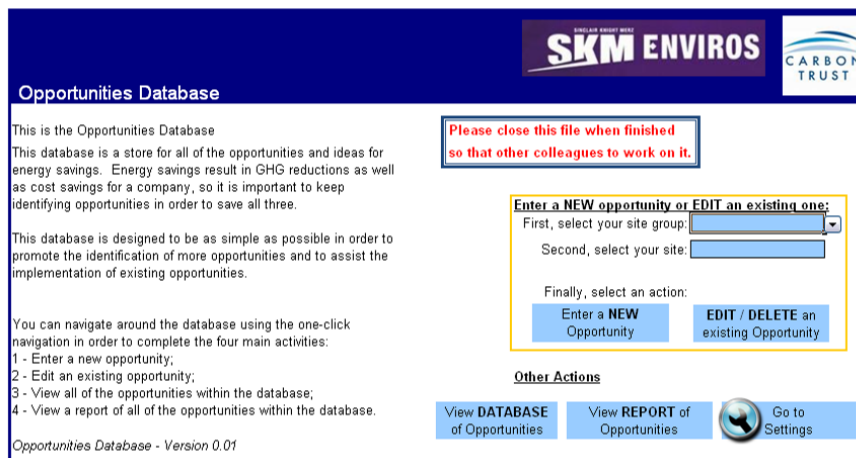


In earlier versions of Excel a Security Warning dialogue box will appear. Click Enable Macros to continue.



Home Page:

The home page of the Opportunities Database is shown below:



First the user needs to select a Group of sites and a Site from that group from the two drop down lists. After selecting a site the user can:

- Enter a new opportunity for the selected site
- Edit an existing opportunity for the selected site
- Delete an existing opportunity for the selected site – *(The user will be asked for a password to delete opportunities)*

Also from this page the user can navigate to the different parts of the file:

- Summary table with all the opportunities in the database
- Report page with useful tables and graphs
- Settings page

Enter / Edit / Delete Opportunities:

To enter a new Opportunity select a site from the drop down list on the Front Page and click on the 'Enter a **NEW** Opportunity' button.

Enter a **NEW**
Opportunity

The Opportunity Form will appear – see screenshot below.

Fill in all cells highlighted in light blue. The dark blue cells are populated automatically. Use the grey cells for any additional notes about the opportunity.

Click the 'Close' button on the bottom right hand side of the form to close the form without saving.

Close

Click the 'Save' button on the bottom right hand side of the form to import the new opportunity in the database.

Save

Note: You can save the opportunity only once all the light blue cells are filled in.

Remember that you still have to save the file to keep any changes made.

Opportunity Form

COMPLETE ALL LIGHT BLUE CELLS. GREY CELLS ARE OPTIONAL

General Details

Activity Area	Asphalt	Date of Entry (dd/mm/yyyy)	10/02/2011
Identified by Whom	John S	Group	GroupA
		Plant	Site A1

Saving Details

Title	Heat Recovery		
Description	Heat recovery from air compressors to be used for space heating and replace existing electric heaters		
Technology Type	Compressors	How was the opportunity derived?	Estimated
Utility Type	Grid Electricity		
Measured units for Utility	kWh		
Annual Utility Saving	3,250 kWh/year	Utility Saving (kWh)	3,250

Other Details

Capital Cost (£)	£250
Other Benefits	
Other Comments	
Opportunity Status	1. Opportunity Identified
Owner	Michael D

Outputs

Carbon Savings	1.8	tonnes CO _{2e}
Cost Saving (£/year)	£293	This cost saving and payback is based on current Tariffs
Payback (years)	0.9	
Cost Saving (£/year)		This cost saving and payback is based on the original Tariffs that were applicable when the opportunity was first entered into the database.
Payback (years)		

To Edit or Delete an existing Opportunity select a site from the drop down list at the Front Page and click on the **'EDIT / DELETE an existing opportunity'** button.

EDIT / DELETE an existing Opportunity

A window will appear (adjacent image) showing all the opportunities for the selected site.

Choose which opportunity you want to Edit / Delete and double click on it.

Choose whether you want to Edit or Delete the selected opportunity in the next dialogue box that pops up.

Do you want to edit or delete the selected opportunity?

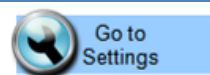
The following opportunities are available for your selected Group and Site:

Group	Site	Title
Test Group	Test Site	Monitor generator refuelling & log number of pumps running/total hours run to determine efficiency of pumping regime.
Test Group	Test Site	Plan task/layout to reduce travel distance between face and field hopper.
Test Group	Test Site	Earthworks contractor to manage own fuel (to avoid us travelling to refuel them)
Test Group	Test Site	Avoid double handling by digging direct from face to field hopper rather than interim stockpile.
Test Group	Test Site	Optimise area open for dewatering to minimise amount of pumping required.
Test Group	Test Site	Use same Operator on 360 excavator to ensure most fuel efficient operation
Test Group	Test Site	Determine at what point it is cost effective to switch off empty conveyors and implement this.
Test Group	Test Site	Adopt most efficient operating technique for mobile plant
Test Group	Test Site	Assess benefit of replacing existing bowser with new one on tractor.
Test Group	Test Site	Explore adding driver diagnostics option to new machines.
Test Group	Test Site	Query higher fuel consumption for cleaner emissions with mobile plant suppliers via Carbon Trust/industry representatives.
Test Group	Test Site	Avoid/minimise unnecessary interim stockpiling to avoid double handling.
Test Group	Test Site	Avoid running empty - shovel, dumptrucks and conveyors.
Test Group	Test Site	Plan route around site to avoid unnecessary mileage.
Test Group	Test Site	Look at benefit of having mobile plant engines remapped to suite relatively level topography at Lydd.
Test Group	Test Site	Split out fuel data for mobile plant vs last field conveyor & hopper vs pumping, to allow focus on main consumer.
Test Group	Test Site	Consider provision of mess facility at dig area or provision of site vehicle to avoid staff travelling back & forth in mobile plant
Test Group	Test Site	Adjust the sequencing on conveyor 12 as running unnecessarily.
Test Group	Test Site	Review electricity monitoring records to ensure correct deduction for concrete and bagging plants & correct consumption cal.
Test Group	Test Site	Replace motors when required with more efficient alternative rather than rewinds. No oversizing.
Test Group	Test Site	Standardise motors for certain applications on plant.
Test Group	Test Site	Ensure crusher always runs 'choke feed'
Test Group	Test Site	Only use aggregates prep (washer) when really necessary (x2 18KW motors).
Test Group	Test Site	Have an on site wind turbine to produce own electricity.
Test Group	Test Site	Review internal and external site lighting controls - only come on when necessary. Also review lighting locations.
Test Group	Test Site	Fit low energy lighting units to existing (as replacement required).
Test Group	Test Site	Check/re-set heating and lighting timers after power cuts, also check heating thermostats as weather changes.

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Settings:

To change the settings of the database click on the 'Go to Settings' button.



From the setting you can set up the following:

- Utility cost tariffs
- CO₂ conversion factor for each utility
- List with Activity Areas

Click on the respective button on the Settings page to make any changes

Note: Any changes in tariffs and CO₂ factors will apply for all the sites and all the opportunities in the database

Once finished click the 'Save and Close' button to go back to the home page



Utility	Tariff	Unit	Use Default
Grid Electricity	0.090	£/kWh	Use Default
Natural Gas	0.025	£/kWh	Use Default
Fuel Oil	0.030	£/kWh	Use Default
Gas Oil	0.032	£/kWh	Use Default
LPG	0.080	£/kWh	Use Default
Diesel	2.300	£/litres	Use Default
Petrol	0.100	£/kWh	Use Default
Coal	0.030	£/kWh	Use Default
Kerosene	0.030	£/kWh	Use Default
Biodiesel	0.030	£/kWh	Use Default
RFO	0.030	£/kWh	Use Default
Wood Pelletts	0.030	£/kWh	Use Default
Wood Chips	0.030	£/kWh	Use Default
Green Electricity	0.100	£/kWh	Use Default
Petcoke	0.050	£/kWh	Use Default
Propane	0.054	£/kWh	Use Default
Butane	0.048	£/kWh	Use Default
Tyres	0.010	£/kWh	Use Default
Biofuel	0.060	£/kWh	Use Default
Biomass	0.060	£/kWh	Use Default
Water	0.100	£/m3	Use Default

Tariff seems too high, Are you sure?

The adjacent image shows an example of the settings for the utility tariffs.

The table is populated with the default values. You can change the value of the tariff for each utility as well as the Unit for each tariff. If the value is changed the cell will turn grey and if the value entered seems to be very high / low the cell will be highlighted in red.

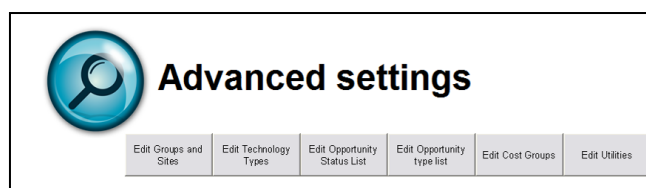
You can always go back and use the default values by clicking on the Use Default link.

'Click Save and Close' button to go back to the Settings page.

There is also an Advanced Settings facility where the following can be set up:

- Groups and Site names
- List with Technology Types
- List with Opportunity Status
- List with Opportunity Type
- Bands for the Cost Groups (No, Low, Medium and High cost bands)
- Custom utilities can be added. *Note that the minimum details for any new custom utility are the tariff and the CO₂ emissions factors.*

Only the Database administrator will be able to make the changes from the advanced settings as a password is needed to access the Advanced Settings options.



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