



Dŵr Cymru
Welsh Water

Water Efficiency Standard Audit Report

EnerSysTM

Power/Full Solutions

LBC801

Energys LTD

Date of Audit: 21/08/2013
Audit by: Philip Thomas
Company: Aqualogic
Contact Email: Phillip.thomas@dwrcymru.com
Mobile: 07557 746664

aqualogic
water conservation

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Water Efficiency Standard Audit - Summary

Report Reference:

LBC801

Report Content:

General Site Details
Audit Report Page 1 to 3
Audit details

Attachments:
(Appendix)

Meter survey and pictures.
Pictures of areas for installations.
General WE Advice

Benchmark:

There is currently no benchmark available for this site.

Best	Average	Poor
n/a	n/a	n/a

Observations:

1. Enersys is a large factory running 24 hours a day 7 days a week.
2. Due to the nature of the site there is a very high emphasis on cleanliness and most of the water use is due to the large shower units on site, which are readily used in between shifts.
3. The flow within both male and female shower blocks is excessive and efficient wall-mounted shower heads are recommended to reduce flow.
4. There are a large amount of urinals on site that are uncontrolled. A total loss of 14 litres per minute is the recorded loss from these uncontrolled urinals. The most wasteful area is in the Ablutions male shower block where all four urinals are running at 2.5 litres per minute, a total of 10 litres per minute from this block alone.
5. The site has previously had water leaks which have recently been repaired. It is recommended to log the water meter on site to identify any further background water loss.
6. There are 2 large hand wash basins in the corridor approaching the canteen that are not used and could be removed to reduce any future issues.

RECOMMENDATIONS - see full audit report for details and costs

High Priority:

9 x Hydrocell Ultras. The total loss is 14.00 L/M, costing the site approximately £21,413 per year (approximately 11% of the sites total water use)

Medium Priority:

10 x EcoBetas	Cost supply and fit	£	400.00
22 x Save a flush	Cost supply and fit	£	132.00
10 x ILFR	Cost supply and fit	£	170.00
28 x Wall mounted showers	Cost supply and fit	£	1,260.00
	Total Cost	£	1,962.00

Other:

Log water meter to identify any underlying leakage issues.

Water Efficiency Standard Audit - Pre Audit Questionnaire / General Details

DCCS Reference:

WE0037D.5

Site Reference:

LBC801

Audit Category:

Medium - 4 hours on site



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Welsh Water

1. SITE DETAILS

Site Name	Energys LTD	Company Name	Energys LTD
Site Description	Factory making lead batteries		
Address	Stephenson Street, Newport.	Sector	Electronics & Engineering
Post Code	NP19 4XJ	Contact Name	Gavin Thomas/Paula Terret
		Contact Tel No.	01633 590383/ 07713 501303
		Contact email	gavin.thomas@uk.energys.com

2. GENERAL DETAILS (Please fill in where known/applicable)

Annual Water Use (m3)	69,305	Any known leakage on site?	No
Cost of Water/1000 litres	£ 2.91	Any Known Defective Fittings on Site?	No
Annual Production (m3)		No. of supply meters?	1
Annual Production (tonne)	19,943	Do you read the meter(s)?	No
Building Floor space (m2)		Frequency of meter reads?	
No. of persons on site daily (Staff/Visitors/Residents) or Accommodation number	480	Does the site have AMR (meter logging)?	No
Weeks/year	52	Meter type/model?	ARAD 50mm
Days/week	7	Meter serial number?	12208236
Hours/day	24	Location Of Water Meter(s)	Inside works, turn right to green hut - RHS of hut in verge.

3. PLUMBING DETAILS (Please fill in where known/applicable)

Supply pipe type	Metal	Cold Water System Type	Direct Mains fed
Any grey or rainwater re-use?	No	Hot Water System Type	Instant

4. HEALTH AND SAFETY

Any H&S issues on the site?	Yes	If "Yes" detail below	Any Water Hygiene Risk?	No
Asbestos register on site?	Yes		Permit to work for your site?	Yes
Asbestos present on site?	Yes			
H&S issue	Acid, lead dust, traffic, permit to work.			

5. OTHER INFORMATION / COMMENTS

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6. TERMS AND CONDITIONS / CUSTOMER SIGN OFF

If Aqualogic's performance of its obligations is prevented or delayed by any act or omission of the Customer, the Customer shall be liable to pay to Aqualogic all reasonable costs, charges or losses sustained or incurred by Aqualogic. This includes any direct, indirect or consequential losses, loss of profit and loss of opportunity to deploy resources elsewhere that arise directly or indirectly from the Customer's failure to perform or delay in the performance of any of Aqualogic's obligations.

I confirm that I have read and understood the above Terms and Conditions

Signature:

Print Name:

Date:

Water Efficiency Standard Audit - Details

DCCS Reference:	WE0037D.5
Site Reference:	LBC801
Site Name:	Energys LTD
Auditor Contact No:	07557 746664

Audit carried out by:	Philip Thomas
Date:	21/08/2013
Postcode:	NP19 4XJ
Auditor email:	Philip.thomas@dwrcymru.com



No.	LOCATION DESCRIPTION <small>If there are any issues with fittings not covered here use additional blank sheet for comments or the Uncontrolled Usage Sheet. Use as reference the line number. E.g. Dripping taps, overflowing cisterns, leaking fittings</small>	TOILETS						TAPS						URINALS						SHOWERS			COMMENTS <small>Record additional information like shower/tap flow rates, toilet cistern size etc.</small>											
		Over-flowing toilet (qty)	Uncontrolled Flow (l/min)	Replacement Fill Valve	DF Valve (qty)	ecobETA (qty)	CDD - Savaflush/hippo (qty)	No. Of Efficient toilets	Leaking Tap (qty)	Uncontrolled Flow (l/min)	Push retro (qty)	Push comp (qty)	Push retro (qty)	Re-time (qty)	ILRR 6 (qty)	Outlet aerator FEMALE (qty)	Outlet aerator MALE (qty)	No. of Efficient Taps	Uncontrolled Urinal (qty)	Uncontrolled Flow (l/min)	Service (qty)	Hydromate (qty)		Hydrocell Ultra (qty)	Service (qty)	Hydromate (qty)	Hydrocell Ultra (qty)	No. of Controlled Urinals	Leaking Shower	Uncontrolled Flow (l/min)	Handheld Shower head	Wall mounted shower head	No. of efficient Showers	
TOTALS		0	0.00	0	0	10	22	21	0	0.00	0	0	0	0	10	0	0	111	9	14.00	0	0	9	0	0	0	1	0	0.00	0	28	0		
1	Ablutions male shower block					9												20	4	10.00			4								20			
2	Ablutions Female shower block						6											10														8		
3	Canteen Female toilet				4									4				8																
4	Canteen Male toilet					3												8	1	0.60			1											
5	Canteen disabled toilet						1											2																
6	Medical centre Male toilet					1												1																
7	Medical centre Female toilet						1											2																
8	Training room Male toilet						2											2	1	1.00			1											
9	Training room Female toilet						1											2																
10	Engineering department area																	1																
11	Engineering department Male toilet					3												6	1	1.10			1											
12	Cell 1 B changing area																	5																
13	Maintenance office area																	4																
14	Cell 2 managers office area																	3																
15	Cell 2 managers office area 2																	2																
16	Cell 2 Female toilet				5													8																
17	Cell 2 Male toilets					4												6	1	0.50			1											
18	Technical area toilet					2												2																
19	Technical area foyer Male toilet						1								2			2																
20	Technical area foyer disabled toilet						1								1			2																
21	Technical area foyer Female toilet				1										1			2																
22	Cell 3 Female toilet						2											2																
23	Cell 3 Male toilet					1												4	1	0.80			1											
24	Main gate house area													1			1																	
25	Front office Female toilet						3										3																	
26	Front office Male toilet						2										3										1							
27																																		
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Water Efficiency Standard Audit - Report Page 1

Report Reference: **LBC801**



This report summaries the results of the audit carried on the site detailed below.

Site Details		Client Details (If different to Site Contact)	
Name	Enersys LTD	Client	
Address	Stephenson Street, Newport.	Client Contact	
Contact Name	Electronics & Engineering	Client Tel number	
Contact Tel No.	Gavin Thomas/Paula Terret	Audit Details	
Contact email	01633 590383/ 07713 501303	Carried out by	Philip Thomas
		Date of Audit	21/08/2013

High Priority Findings and Recommendations

We have categorised the following findings as high priority and as such we would recommend that they are acted upon as soon as possible as they give immediate and cost effective savings

Number of toilets overflowing	0	Uncontrolled Flow	0.00	L/min
Number of leaking taps	0	Uncontrolled Flow	0.00	L/min
Number of uncontrolled urinals	9	Uncontrolled Flow	14.00	L/min
Number of leaking showers	0	Uncontrolled Flow	0.00	L/min

Total Uncontrolled Flow Loss	14.00	L/min
Estimated Cost of Water Wasted	£ 21,413	£/year
Approximate Percentage of Total Usage	11	%

Recommendations (Dwr Cymru Welsh Water Funded)

Ref	Type	Item	No. of	Fitting cost	Item Cost	Total Cost
Varies	Toilet	Fill Valve - Eco Fill	0	£ 10.00	£ 25.00	£ -
AQTPT	Tap	Retro Push Tap	0	£ 9.00	£ 18.00	£ -
AQTPTA	Tap	Complete Push	0	£ 24.00	£ 26.00	£ -
Maint	Urinal Control	Service Urinal Controller	0	£ -	£ 52.50	£ -
AQUHCU	Urinal Control	Hydrocell Ultra - Battery	9	£ 50.00	£ 125.00	£ 1,575.00
AQUHM	Urinal Control	Hydromate - Mains	0	£ 85.00	£ 125.00	£ -
Cost of water efficiency upgrades						£ 1,575.00
Payback period (Months)						0.9

Other Recommendations (financed by Customer)

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Water Efficiency Standard Audit - Report Page 2

Report Reference: **LBC801**



Medium Priority Findings and Recommendations

During the survey we have identified a number of fittings that are operating adequately **but** could be upgraded with retro-fit water efficiency products that would give water savings

It is not always possible to quantify these savings as usage patterns and individual savings vary but all of the recommendations listed below would be expected to give a **payback in 24 months**

Recommendations

Ref	Type	Item	No. of	Fitting cost	Item Cost	Total Cost
AQWCECO	Toilet	Dual flush - Ecobeta	10	£ 25.00	£ 15.00	£ 400.00
AQWCT889	Toilet	Dual flush - Turbo 2 Part	0	£ 45.00	£ 20.00	£ -
AQWCD	Toilet	CDD- Savaflush	22	£ 3.50	£ 2.50	£ 132.00
AQTPT	Tap	Retro Push Tap	0	£ 9.00	£ 18.00	£ -
AQTPTA	Tap	Complete Push	0	£ 24.00	£ 26.00	£ -
n/a	Tap	Re-time push tap	0	£ 8.25	£ -	£ -
AQRIVB	Tap	In-line Flow Regulator	10	£ 12.00	£ 5.00	£ 170.00
Various	Tap	Tap Aerator - FEMALE	0	£ 3.00	£ 2.00	£ -
Various	Tap	Tap Aerator - MALE	0	£ 3.00	£ 2.00	£ -
Maint	Urinal Control	Service Urinal Controller	0	£ -	£ 52.50	£ -
AQUHCU	Urinal Control	Hydrocell Ultra - Battery	0	£ 50.00	£ 125.00	£ -
AQUHM	Urinal Control	Hydromate - Mains	0	£ 85.00	£ 125.00	£ -
AQS1101C	Shower	Hand Held Shower	0	£ 10.00	£ 10.00	£ -
AQS310	Shower	Wall Mounted Shower	28	£ 10.00	£ 35.00	£ 1,260.00
Cost of water efficiency upgrades						£ 1,962.00

Fittings that are Water Efficient

During the survey we have identified a number of fittings that are operating in a **water Efficient way** and therefore we would not recommend upgrading.

Not all of these fittings are necessarily the most water efficient in their class but they do offer a water saving over non-efficient products.

If replaced we would be expected payback **greater than 24 months**.

Number of Water Efficient **toilets**

21

Number of Water Efficient **taps**

111

Number of Water Efficient **urinal Controllers**

1

Number of Water Efficient **showers**

SUMMARY

Total cost of **DCWW** funded **high priority** recommendations

£ 1,575.00

Total cost of **Customer** funded **high priority** recommendations

£ -

Payback Period for **High Priority** recommendations

0.9 Months

Total cost of **Medium priority** recommendations

£ 1,962.00

Payback Period for **Medium Priority** recommendations

<24 Months

Total Cost of Water Efficiency upgrades

£ 3,537.00

Note: Medium priority recommendations are also available as 'supply only' if required

If you would like to place an order or discuss anything in this report please contact
Aqualogic on 0844 324 0844 quoting Report Reference number.

Water Efficiency Standard Audit - Report Page 3

Report Reference: LBC801



OTHER COMMENTS / FINDINGS



Dŵr Cymru
Welsh Water

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Appendix

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Water