

APPENDIX 6

Priority: Environment
Sub-Priority: Carbon Control and Reduction
Impact: Reducing our carbon impact on the natural environment

What we said we would do in 2014/15: -

1. Market and promote carbon reduction measures within the Council, with our partners and with the public to manage and reduce emission levels.

Progress Status	Progress RAG	G	Outcome RAG	G
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What we aim to do in 2014/15 :

Having completed the Carbon Trusts Schools Energy Reduction programme, we will be working with these schools to maximise the potential savings that have been identified. To assist in this process, real time electrical energy monitoring (Sense Logix system) has been installed and is operational in all but one of the 10 schools. These monitoring systems will be used by the schools as an educational tool with the children and to promote energy efficiency.

We have identified a number of sites that will benefit from Solar P.V. and these will hopefully be installed during the summer months.(a smaller number due to reduced budgets)

A number of commercial scale renewable schemes have been identified and every effort will be made to bring these schemes to fruition. If achieved, such schemes will bring a significant and much needed boost to the Authority's revenue stream.

We will continue to work on providing BREEAM (Building Research Establishment Energy Environmental Assessment method) assessments for the 21 st century schools (5 have now been lodged with BREEAM)

The North Wales Energy Advice Centre continues to work with Corporate Training to provide frontline services with training on energy use and tariff advice. Two training sessions per year is the target.

The North Wales Energy Advice Centre also manages a service level agreement through which they provide comprehensive energy reports for residents free of charge. These reports (available to all residents upon request) provide information on energy usage and potential savings. The Advice Centre can also provide financial support for the households demonstrating a genuine need of support such as being in fuel poverty (and who fail to qualify for means tested programmes) to enable the physical improvements to happen. The service is in essence a safety net for Flintshire residents. The project has financial resource to support up to 120 households per year whilst there is no limit on the number of visits and reports that can be undertaken.

2. Challenge the Council's carbon emissions, through our assets, vehicles and people behaviour: -

- Investing in renewable energy schemes
- Investing in a more efficient fleet (vehicles)
- Improving the efficiency of our street lighting; and
- Increasing recycling of the Council's own waste

Progress Status	Progress RAG	G	Outcome RAG	G
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Progress Comment:

Carbon Reduction/Renewable energy.

The spring of 2014 was mild and continued the mild theme of the entire winter, with few serious frosts and virtually no snowfall, unlike the previous year which had been exceptionally cold with considerable snowfall. This has had a beneficial impact on the amount of energy used during this first quarter period, particularly for heating purposes, which, has resulted in an 37% decrease in gas consumption. Further reductions in electricity (14%), oil (74%) and LPG (48%) have also been recorded.

The table below shows the various streams and percentage reductions anticipated from the four Carbon saving elements, taken from the Carbon Reduction Strategy, and how they feed into the overall 60% target.

We continue to install energy efficient projects with good paybacks (most less than 5 years) up to our budget allocation and these together with the good housekeeping element have produced most of the energy/carbon reductions to date, though there is still more available if colleagues in all directorates, and at all County buildings were more thoughtful about their energy use in work.

The renewable /low carbon element is a little behind the programme schedule mainly due to insufficient funding until the last two years, and whilst we have caught up to some degree, financial pressures have once again detrimentally impacted on this years Renewable Energy budget which has been more than halved. However the Carbon Trust have identified that there is a need to invest in commercial scale renewable technology e.g. a large scale wind turbine or Solar farm, and these options are being explored.

The running total of renewable system installations now stands at 52 with low carbon technologies including wind turbines, solar photo voltaics, solar hot water, Bio Mass boilers (wood chip) and Combined heat and power engines that generate electricity as well as heat. All of these eligible renewable technologies continue to provide an income stream to the Authority through the Governments Feed in Tariffs and Renewable Heat Incentives. We will shortly be tendering a couple of P.V. installations for Flint High school and Abermorddu C.P. but apart from possibly a couple more smaller P.V. installations this will take us to the limit of our 2014/15 budget.

Several lighting refurbishments are also programmed this year with the majority anticipated to be complete before the schools return after the summer holidays.

We will continue to monitor the most significant of our sites (approx 130) to ensure waste is minimised and that energy budgets are not exceeded.

Continue to work with our Local Service Board Colleagues, reporting on energy consumption from all parties.

%Carbon savings (cumulative)	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Energy Efficiency Projects	0%	2%	4%	6%	8%	11%	12%	14%	15%	17%	18%	19%	20%
Good Housekeeping Asset Management	2%	4%	6%	8%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Renewable & Low Carbon	0%	0%	0%	0%	0%	1%	2%	3%	4%	5%	6%	8%	10%
Total	2%	6%	10%	15%	20%	25%	29%	34%	38%	43%	48%	54%	60%

Within Community and Enterprise the Housing Regeneration and Strategy Team were expected to deliver measures to 100 properties in Q1 which has been exceeded. The 106 measures installed were cavity wall insulation, boiler replacements and external solid wall insulation. Further more, preparation for Q2 has been completed on time. A risk for this next quarter, however, is the availability of mains gas to the community of Mostyn. No heating systems can be installed until Wales and West Utilities are ready to commission the gas network which is scheduled for August. Despite this the team expects to deliver its target of measures to 350 homes in Q2. Another major change has been the funding – ECO funding has dwindled away and is extremely difficult to secure and when it is secured it is worth very little. To offset this the team have used the Green Deal Home Improvement Fund which is worth £4,000 per property on average. The Welsh Government were expected to launch their new £40million capital grant in Q1 but this at the time of writing still isn't available. This won't have an impact on the expected delivery targets for this year.

Streetlighting

The use of appropriate new lanterns and technologies with high performance optics, electronic control gear, shielding etc can show reductions in energy consumption and a reduction in lighting pollution with the light distributed downwards at the target area which reduces in intensity at suitable locations.

The routine replacement of older conventional electro magnetic control gear with electronic control gear and white light is currently

ongoing. This would enable individual lamps or sections of lighting to be dimmed for part of the night, whilst providing a large energy efficiency saving per unit for high pressure sodium lamps, replacing low pressure sodium lamps and certain high pressure sodium lamps with white light and increasing the life expectancy of the lamp.

Dimming equipment is being installed during routine maintenance operations, which gives an alternative to switching off or partial switching off in certain areas of potential conflict. Although the option to part night is still under review subject to the successful implementation of the 400 part night units already installed within Flintshire.

Replacement of older PL bollards and sign lanterns to newer LED technologies which in turn reduces the number of visits to sites for maintenance which in turn reduces the carbon usage of vehicle movement.

Fleet

All fleet vehicles will be monitored through the Tracking of vehicles to promote better utilisation of the vehicle and limits wasted journeys to further improve the CO2 performance. A new tracking protocol/policy is planned to be submitted for consideration in October 2014.

The adopted fleet review business cases on vehicle procurement and utilisation are now shaping how vehicles across the authority are being specified, procured, and utilised.

During Q1, 44 vehicles have been replaced with newer hire vehicles. These have replaced 5+ year old vehicles, and the table below shows the improved emissions (although not CO emission) of the newer vehicles. This roll-out will continue throughout this year, with the replacement figure already rising to 70 vehicles by end of July 2014.

EU emissions standards for passenger cars (in g/km)

Euro Standard	Implementation date*	CO (g/km)	THC (g/km)	NMHC (g/km)	NOx (g/km)	HC=NOx (g/km)	PM (g/km)
Diesel							
Euro I	July 1993	2.72	-	-	-	0.97	0.14
Euro II	January 1997	1.00	-	-	-	0.70	0.08
Euro III	January 2001	0.64	-	-	0.50	0.56	0.05
Euro IV	January 2006	0.50	-	-	0.25	0.30	0.025
Euro V	September 2010	0.500	-	-	0.180	0.230	0.005

Whilst considering alternative fuel options, and pool car availability, all new vehicle requests are challenged by fleet services.

Exploratory discussions have taken place with a number of vehicle manufacturers regarding electric and hybrid vehicle technologies, but as of yet these are not providing suitable alternative solutions to our commercial fleet.

Following the challenge to vehicle utilisation and replacement numbers, Fuel Monitoring will be set by using 2014/15 usage as a baseline for total number of litres used. This is being captured through a 'Data Warehouse' that will track all vehicle transactional costs throughout the year.

Recycling

We continue to promote recycling collections from all FCC sites that we provide collection services for, providing additional bins for all dry recycling and food.

Achievement will be measured through:

- Carbon reduction commitment
- Renewable energy and energy retrofit schemes
- Monitoring the fuel consumption of our fleet
- Carbon emissions from Council street lighting
- Recycling performance

Achievement Measures	Lead Officer	2013/14 Baseline Data	2014/15 Target	2016/17 Aspirational Target	Current Outturn	Performance RAG	Outcome Performance Predictive RAG
EEFLM1 - Carbon Reduction Commitment - Reduce our carbon footprint through delivery of our Carbon Reduction Strategy (non domestic portfolio)	Chief Officer – Planning & Environment	1.51% (increase in year) 18.53% (cumulative reduction)	21% cumulative reduction	60% cumulative reduction by 2021	Annual return	NA	NA
Investment in renewal energy schemes		£300k	£100k	TBC subject to budget setting	£100k	G	G
Monitoring the fuel consumption of our fleet (litres)	Chief Officer – Transport & Streetscene	N/A New Measure	Baseline Year	TBC once baseline established	N/A	N/A	N/A
Reduction in carbon emissions from Council street lighting through installing improved and energy efficient street lighting, signs and bollards.		1.8%	1.75% per annum	2.5% per annum	1.8%	G	G
WMT/009b - The percentage of municipal waste collected by local authorities and prepared for reuse and/or recycled, including source segregated bio wastes that are composted or treated biologically in another way.		55.07%	57%	58%	58%	G	G

Risks to be managed - Ensuring that recycling and energy efficiency programmes are supported by the public and employees

Gross Score (as if there are no measures in place to control the risk)			Current Actions / Arrangements in place to control the risk	Net Score (as it is now)			Future Actions and / or Arrangement to control the risk	Manager Responsible	Risk Trend	Target Score (when all actions are completed / satisfactory arrangement s in place)		
Likelihood	Impact	Gross Score		Likelihood	Impact	Gross Score				Likelihood	Impact	Gross Score
(L)	(I)	(LxI)		(L)	(I)	(LxI)			(L)	(I)	(LxI)	
H	H	R	<p>R1. Promote and raise awareness of the benefits of recycling with the public</p> <p>R2. Increase the level, efficiency and ease of collection systems for the public</p> <p>F2. Currently working through a programme of fitting Tracker Systems to all Fleet vehicles across the authority.</p>	L	M	G	<p>R1. Key action campaigns to improve quality and quantity of materials through collections. Increased awareness workshops in schools. Target Trade premises not currently recycling.</p> <p>R.2 specific material campaigns to target materials with low capture rates and improve the quality of the materials.</p> <p>F2 Tracking of vehicles promote better utilisation of the vehicle and limits wasted journeys to further improve the CO2 performance. Work on-going to fit systems to vehicles, all new vehicles are fitted with units</p>	<p>Chief Officer Environment and Planning</p> <p>Chief Officer Streetscene and Transportation</p>	↓	L	L	G

Gross Score (as if there are no measures in place to control the risk)			Current Actions / Arrangements in place to control the risk	Net Score (as it is now)			Future Actions and / or Arrangement to control the risk	Manager Responsible	Risk Trend	Target Score (when all actions are completed / satisfactory arrangements in place)		
Likelihood	Impact	Gross Score		Likelihood	Impact	Gross Score				Likelihood	Impact	Gross Score
(L)	(I)	(LxI)		(L)	(I)	(LxI)				(L)	(I)	(LxI)
			<p>F3. Drivers Handbook Extract on Economic Driving including explanation of Fuel Consumption provided to workforce</p> <p>F4. Transportation and Logistics operations currently being reviewed. The results will shape how vehicles across the authority will be specified, procured, and</p>				<p>F3 Revised Fleet Drivers Handbook has been distributed to all drivers. In-House training programme is nearing completion for all drivers of LGV's as part of the Driver CPC (Certificate of Professional competence) training. Modules for the training include SaFED. (Safe and Fuel Efficient Driving) techniques, thereby reducing fuel consumption and carbon emissions. All new starters receive driver Training</p> <p>F4 The review of Transportation and Logistics operations is completed. The results will shape how vehicles across the authority will be specified, procured, and utilised. Whilst considering</p>					

Gross Score (as if there are no measures in place to control the risk)			Current Actions / Arrangements in place to control the risk	Net Score (as it is now)			Future Actions and / or Arrangement to control the risk	Manager Responsible	Risk Trend	Target Score (when all actions are completed / satisfactory arrangements in place)		
Likelihood	Impact	Gross Score		Likelihood	Impact	Gross Score				Likelihood	Impact	Gross Score
(L)	(I)	(LxI)		(L)	(I)	(LxI)				(L)	(I)	(LxI)
			<p>utilized. Whilst considering alternative fuel options, and pool cars availability,</p> <p>E1. Interaction and engagement with staff and energy champions to promote and raise awareness of energy conservation initiatives.</p>				<p>alternative fuel options, and pool car availability All new vehicle requests are challenged by fleet services.</p> <p>E1 Continue to promote energy awareness programmes and the positive contribution low cost no cost action can have on the council's energy costs.</p>					

3. Encourage public utilisation of recycling facilities and services							
Progress Status			Progress RAG	G	Outcome RAG	G	
<p>Campaigns to improve quality and quantity of materials through collections. Increased awareness through school workshops and use of campaign trailer</p> <p>Target areas of low performance and specific material campaigns such as food.</p> <p>Achievement will be measured through:</p> <ul style="list-style-type: none"> Improved recycling performance 							
Achievement Measures	Lead Officer	2013/14 Baseline Data	2014/15 Target	2016/17 Aspirational Target	Current Outturn	Performance RAG	Outcome Performance Predictive RAG
WMT/011 - The percentage of local authority municipal waste received at all local authority household waste amenity sites that is prepared for reuse, recycled or of source segregated bio waste that is composted or treated biologically in another way.	Chief Officer – Transport & Streetscene	54.47%	67%	75%	65% (provisional figure – waiting for more data)	A	A

Risks to be managed - Securing sufficient funding for renewable energy schemes

Gross Score (as if there are no measures in place to control the risk)			Current Actions / Arrangements in place to control the risk	Net Score (as it is now)			Future Actions and / or Arrangement to control the risk	Manager Responsible	Risk Trend	Target Score (when all actions are completed / satisfactory arrangements in place)		
Likelihood	Impact	Gross Score		Likelihood	Impact	Gross Score				Likelihood	Impact	Gross Score
(L)	(I)	(LxI)		(L)	(I)	(LxI)				(L)	(I)	(LxI)
H	H	R	Continue to invest in Renewable energy systems that are eligible for the Governments Feed In tariff and Renewable Heat incentive payments, though the significant reduction in the renewable Energy Budget (£300k down to £100K) will have a negative impact. Explore options for much larger renewable schemes	M	M	A	Work with APSE and other suitable partners to ultimately develop large scale energy schemes, that will make a significant contribution to the County's Energy needs	Chief Officer, Planning and Environment And Streetscene Chief Officer	↑	M	M	A

Risks to be managed - Securing sufficient funding to maintain the Council's recycling service.

Gross Score (as if there are no measures in place to control the risk)			Current Actions / Arrangements in place to control the risk	Net Score (as it is now)			Future Actions and / or Arrangement to control the risk	Manager Responsible	Risk Trend	Target Score (when all actions are completed / satisfactory arrangements in place)		
Likelihood	Impact	Gross Score		Likelihood	Impact	Gross Score				Likelihood	Impact	Gross Score
(L)	(I)	(LxI)		(L)	(I)	(LxI)			(L)	(I)	(LxI)	
H	H	R	Continue to provide a regular high quality collection service to maintain/increase public participation. Continue to operate the recycling bulking facility to ensure high quality recycling to capture high end returns of income.	M	H	R	Investigate areas of good practice in other LA's to help increase participation by residents and increase income potential. Improve standards of meet and greet at Household Recycling Centre to divert recyclable waste from landfill.	Chief Officer, Planning and Environment And Streetscene Chief Officer	↑	L	L	G

Risks to be managed - Securing sufficient funding for further street lighting improvement programmes.

Gross Score (as if there are no measures in place to control the risk)			Current Actions / Arrangements in place to control the risk	Net Score (as it is now)			Future Actions and / or Arrangement to control the risk	Manager Responsible	Risk Trend	Target Score (when all actions are completed / satisfactory arrangements in place)		
Likelihood	Impact	Gross Score		Likelihood	Impact	Gross Score				Likelihood	Impact	Gross Score
(L)	(I)	(LxI)		(L)	(I)	(LxI)				(L)	(I)	(LxI)
H	H	R	Continue to invest in energy saving schemes.	L	M	G	<p>Investigation into Part night switching in areas of approved and evaluated locations which will reduce carbon and energy usage whilst supporting extra benefits such as dark nights at sky.</p> <p>Part night switching in areas of approved and evaluated locations will reduce carbon and energy usage whilst supporting extra benefits such as dark nights at sky.</p> <p>Dimming of lighting units by 30% to reduce the level of energy and illumination output for a period of time during dark hours (2200hrs – 0600hrs).</p> <p>Trimming the switching on and off times to reduce the hours of operation by 20 hours per unit per year.</p>	Chief Officer, Planning and Environment And Streetscene Chief Officer		L	L	G

4. Encourage residents and employees to use more sustainable forms of transport.

Progress Status	Progress RAG	G	Outcome RAG	G
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The Authority has been successful in obtaining Grant funding from Welsh Government to deliver and develop designated cycleways. This program will include the implementation of a cycle way linking Broughton to Saltney. Works are not programmed to start till January 2015. We are also presently looking at developing two further designated cycle ways. These being the missing link between the existing cycle way network on Deeside Industrial Park, and also the feasibility of providing a cycle way between the recently completed route in Sandycroft and the Airbus factory.

Work started in July on the Talacre to Ffynnogroew shared use route (pedestrian /cyclists) this will be completed in September. Cycle/Pedestrian counters will be put on all the new cycle ways to provide usage figures. We will also be launching the successful Cycle to Work Scheme in September.

The measure “increased bus passenger numbers” will be replaced in quarter 2 with the measure “Cost per passenger”. This change has been made for a number of reasons:

- the complexities of gathering the data
- it is unlikely that bus passenger numbers will increase if service levels are being cut due to funding cuts.
- a number of the bus services in the county are commercial and operators will not share commercially sensitive information with the authority.

Achievement will be measured through:

- Increased bus passenger numbers and use of cycleways

Achievement Measures	Lead Officer	2013/14 Baseline Data	2014/15 Target	2016/17 Aspirational Target	Current Outturn	Performance RAG	Outcome Performance Predictive RAG
Increased bus passenger numbers. <i>*This measure will be replaced at Qtr 2 with “Cost per passenger”</i>	Chief Officer – Transport & Streetscene	N/A New Measure	Baseline Year	TBC once baseline established	Not available	N/A	N/A
IPE1M7 - Number of users on the cycleway networks evidenced through counter data		82,500 users	120,000 users	150,000 users	125,261	G	G

Risks to be managed: Ensuring that buildings are used effectively to match our priorities

Gross Score (as if there are no measures in place to control the risk)			Current Actions / Arrangements in place to control the risk	Net Score (as it is now)			Future Actions and / or Arrangement to control the risk	Manager Responsible	Risk Trend	Target Score (when all actions are completed / satisfactory arrangements in place)		
Likelihood	Impact	Gross Score		Likelihood	Impact	Gross Score				Likelihood	Impact	Gross Score
(L)	(I)	(LxI)		(L)	(I)	(LxI)			(L)	(I)	(LxI)	
H	H	R	Work continues to reduce paperwork and document storage. Communicate out to staff and promote the Assets work stream and raise awareness of what is required through infonet and communication meetings Increasing number of services working agilely Review of current building usage	L	L	G	Continue to maintain progress in relation to paper disposal and increase scanning capability to support agile working. Awareness raising campaigns have been used in the infonet to promote agile working and we have developed a training course for managers to support them in agile working with particular emphasis on output based management up skilling. Continue to increase the level of take up in agile working. The decant of Connahs Quay Offices will provide the next major agile worker migration.	Chief Officer Organisational Change	↓	L	L	G

5. Complete the review and rationalise the Council's assets.							
Progress Status			Progress RAG	A	Outcome RAG	G	
<p>Current decant from Flint will be complete in August to allow accommodation to be provided for agile working teams from Connahs Quay. Connahs Quay offices will then close.</p> <p>There has been an increase in space use in all phases of county hall and there will be additional staff moving to Flint. The emptying and demolition of the Connah's Quay offices will be an important step in reducing accommodation and removing an inefficient building from the authority's portfolio. While this is on target we have retained RAG status for the present. Likewise specific carbon reduction measurements and analysis will be reviewed in due course.</p>							
<p>Achievement will be measured through:</p> <ul style="list-style-type: none"> Reduction in the Council's assets portfolio 							
Achievement Measures	Lead Officer	2012/13 Baseline Data	2013/14 Target	2016/17 Aspirational Target	Current Outturn	Performance RAG	Outcome Performance Predictive RAG
IPE2M11 - Reduce the number of corporate office buildings we own and occupy	Chief Officers – Organisational Change	0	Reduction of 1 building	Reduction of 2 buildings	0	A	G