

APPENDIX 3

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

What we did in 2014/15:-

The IT issues referred to in the Q3 report, regarding the “Sense Logix” real time metering at the 11 Carbon Trust, pilot primary schools has been resolved and the metering is now functioning normally. It is our intention to run a competition amongst these pilot schools during 2015/16 to challenge them to further reduce their energy consumption. However, an indication of the success of the Carbon Trust project is that the participating schools have on average saved an indicative 3.75% on their electricity and 3.3% on gas use.

A report called “the Large Scale Renewable Energy Action Plan” was submitted to Cabinet and approved, a public consultation exercise seeking comments from the general public will commence shortly.

Our Energy Monitoring system “Digital Energy Carbon and Energy Management system “ has been upgraded and reissued to all users.

In the Cyd Cymru Collective Energy Switching project, our publicity campaign ensured Flintshire had the 3rd highest numbers of registrations in Wales, with 234 Flintshire residents registering and 5600 total registrations. Final switch numbers will be confirmed after the cooling off period has passed, but unique offers were secured from 3 energy companies and figures are showing likely switch figures of around 30-35%. The cheapest tariff secured from the 3 energy companies was last commercially available as a tariff in November 2010.

Working with colleagues in Housing as part of the Domestic Energy Efficiency Project, we successfully claimed the first domestic Renewable Heat Incentive (RH) I registration for renewable heat energy being generated in council properties and Green Deal Home

Improvement Funding of over £130k. We began work on several new initiatives through the Affordable Warmth partnership including the “Monergy” finance and energy advice scheme, the healthy homes hub, and the fuel poverty targeting programme. For further information, PIs for that project are reported separately under the Improvement Priority Protecting People from Poverty, Fuel Poverty subheading.

What went well:-

The Carbon Trust schools energy savings initiative demonstrated that educating staff and budget holders on the efficient use of energy in their respective premises, pays off financially and environmentally, leaving more funding in the schools budgets for education purposes.

What did not go so well:-

Due to British Gas introducing a new billing system in October 2014, that is still not operational, Flintshire C.C. have not paid any invoices since that time. This has prevented the Energy Unit validating energy consumption and challenging sites where more energy has been used than expected.

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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What we did in 2014/15:-

Investing in renewable energy schemes

The reduction in the Renewable Energy budget has severely restricted the installation of renewable energy schemes during 2014/15. Just three Photo Voltaic schemes were completed, at Flint High school (44 Kwp), Abermorddu County Primary (CP). (25 Kwp) and Brynford C.P.(5 Kwp). The p in KWP is an abbreviation for " peak " in other words the maximum amount of electricity that could be generated at any given time, e.g a 25 KWP array could in theory produce 25 Kwh's (in an hour).

Domestic Energy Efficiency Project - This cross-service project surpassed its targets, delivering improvements to 839 homes (original target 650). The broadest range of measures to date was installed including solid wall insulation, loft and cavity wall insulation and boiler replacements. In addition, and in response to a move to more rural properties as well as delivery in the Deeside strip, air source heat pumps and solar panels were installed maximising the annual heating bill savings enjoyed by tenants and residents. The air source heat pumps and solar panels generate income for the team which is reinvested to continue the programme. Over 300 council properties now have renewable energy generation systems bringing an annual income to the council of over £100,000. For further information, PIs for that project are reported separately under the Improvement Priority Protecting People from Poverty, Fuel Poverty subheading.

FLEET:

Throughout 2014/15 the Fleet Review findings were implemented and this has rejuvenated the fleet across our small and large vans. As HGV's required replacing, we have carried out an options appraisal to consider whether migrating them over to spot hire contracts or continue with the vehicle until the implementation of a vehicle procurement and management partner, expected in late 2015, would be better.

Development of the Vehicle Tracking Policy will include the requirement to train drivers when their behaviour does not meet that expected.

What went well:-

Investing in renewable energy schemes

The installation of the above mentioned Photo Voltaic projects and the capital works undertaken by the energy Unit all went according to plan, and were carried out within budget. The works (both Capital and management) undertaken during 2014/15, resulted in an absolute reduction in recorded energy use of approximately 4%.

Within this figure Carbon emissions from electricity was down by 1.8% and gas 4.9%. Significant reductions in energy use and emissions from LPG and Oil were also recorded but these are not significant in terms of the Council's overall usage or emissions, and there is a question mark over their accuracy due to reporting of deliveries and stock levels at sites that use these fuels.

Although we reduced our actual energy use by 4%, when weather correction is applied, to take account of the relatively mild winter we see just a 0.43 % reduction. These are the figures that we report in the tables below. There are two likely causes for this disappointing result, one is that the weather correction calculations tend to exaggerate the savings made during very cold winters, and understate them during mild winters such as the 2014/15 winter. The second is the disruption to the service from staff retiring and leaving through voluntary redundancy throughout the year.

The installation of LPG meters referred to in Q3 report has been completed, and should provide a marked improvement so once these meters have been set up on the Energy Monitoring system it will become much more reliable in recording LPG use.

FLEET :

Roll out of new fleet vehicles.

Current Fleet make-up: 265 hire vehicles

Of which:

- 223 Burntree Light Goods Vehicles
- 34 Specialist Equipment or Plant

Average age of Hire Fleet – 1.55 years

107 Owned Fleet – Average age of Owned Fleet – 7.07 years

What did not go so well:-

Investing in renewable energy schemes

The reduction in Energy Unit staff, due to retirement and colleagues moving on, has meant 2014/15 was a very difficult year to manage and try to maintain the pressure on sites to be vigilant on their energy use.

FLEET :

Timescales for replacement or transition to newer vehicles slipped throughout the year hence the differentiation between the average age of the hire fleet against the owned fleet. This in turn has a knock on effect on our ability to reduce CO emissions given that with the averages of the owned fleet being 7.07 years EU emissions standards would be 1.00 (g/km) whereas this reduces to 0.500 from September 2010.

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	2014/15 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 weather corrected)	21% cumulative reduction	60% cumulative reduction by 2021	0.43% (reduction) 18.96 (cumulative reduction weather corrected)	A	A
Investment in renewable energy schemes		£300k	£100k	No budget for 2015/16	£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	Annual consumption Unleaded 20,966.06 litres Diesel	N/A	N/A

Improvement Plan Progress
Year End 2014/15

					1,201,705.93 litres		
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	3.8% per annum	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

Q4 fuel consumption – Unleaded 3144.35 litres Diesel 289,255.51 litres

Risk 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 arrangements in place)			
Likelihood	Impact	Gross Score		Likelihood	Impact	Gross Score				Likelihood	Impact	Gross Score	Target Date
(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 Key action campaigns to improve quality and quantity of materials through collections.</p> <p>R2. Increase the level, efficiency and ease of collection systems for the public and specific material campaigns to target materials with low capture rates and improve the quality of the materials.</p> <p>F2. Currently working through a programme of fitting Tracker Systems to all Fleet vehicles across the</p>	L	M	G	<p>R1. Target areas of low performance for both food and recycling, through door stepping and awareness raising initiatives.</p> <p>R.2 Introduction of new reusable sacks for plastic and cans. The sacks are silver/grey in colour to help reduce the amount of replacement bags required due to old style white ones were dirty.</p> <p>Improve the meet and greet system at the HRC to improve understanding of the recycling streams at the site. Review container types to maximise capacity and</p>	<p>Chief Officer Environment and Planning</p> <p>Chief Officer Streetscene and Transportation</p>	↔	L	L	G	Jan 2015

Improvement Plan Progress
Year End 2014/15

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	Target Date
(L)	(I)	(LxI)		(L)	(I)	(LxI)				(L)	(I)	(LxI)	
			<p>authority.</p> <p>F3. Drivers Handbook Extract on Economic Driving including explanation of Fuel Consumption provided to workforce. 181 Trackers are now fitted to Fleet vehicles.</p> <p>F4. Transportation and Logistics operations currently being reviewed. The results will shape how vehicles across the authority will be specified, procured, and utilized. Whilst considering alternative fuel options, and pool cars availability.</p> <p>E1 Continue to promote energy awareness</p>				<p>improve collection times.</p> <p>F2 We are continuing to consult on a Vehicle Management System Policy (which is an expansion on the originally perceived Vehicle Tracking Policy), which will be weighted towards driving efficiencies out of operations and fleet ownership.</p> <p>F3. The next phase of Driver Training is being considered, following the implementation of the new Streetscene & Transportation structure which includes a dedicated Training & Compliance Team and module content and delivery will be an influential factor.</p> <p>F4. All new vehicle requests</p>						

Improvement Plan Progress
Year End 2014/15

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	Target Date	
(L)	(I)	(LxI)		(L)	(I)	(LxI)				(L)	(I)	(LxI)		
			<p>programmes and the positive contribution low cost no cost action can have on the council's energy costs.</p> <p>E2. Interaction and engagement with staff and energy champions to promote and raise awareness of energy conservation initiatives.</p>				<p>are challenged by fleet services. SLA's set up with all depts.</p> <p>A job advert is currently seeking a suitable replacement as Energy Conservation Officer and permission has been granted to take on a graduate trainee. Once these posts are filled, work will recommence on promoting energy awareness, through a variety of means, e.g revitalising the energy champions network and a refreshing of the awareness raising campaigns.</p> <p>An action plan to monitor monthly the onsite energy use to ensure energy is not being used whilst sites are</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	Target Date
(L)	(I)	(LxI)		(L)	(I)	(LxI)				(L)	(I)	(LxI)	
							closed will also be developed.						

Risk Progress Summary for 2014/15

The current level of risk is low (green) reflecting the work undertaken. However the risk trend arrow shows the actions currently being undertaken are maintaining the risk at a low level and it is expected this will continue.

3. Encourage public utilisation of recycling facilities and services

Progress Status

Progress RAG

G

Outcome RAG

G

What we did in 2014/15:-

18 primary schools received the awareness road-shows funded through the tidy towns grant.
6000 households within low participation areas not currently recycling food waste were targeted in a campaign including door stepping and leaflets.
Opened a new household recycling centre (HRC) at Sandycroft and closed Queensferry and Saltney HRCs due to the new site opening.
Improved the meet and greet system at the HRC to improve understanding of the recycling streams at the site.
Reviewed container types to maximise capacity and improve collection times.

What went well:-

The road show was well received at the 18 primary schools, positive feedback from teaching staff and pupils.

Campaign to target 6000 households was a success, results:
Food waste tonnages were up by 22% one month after the campaign, rising to 18% two months after and sustained at 18% three months after.
Food waste participation increased by 5% and this was sustained over the 2 month period following campaign.
Numbers of delivery requests for food bags and/or food bins increased by 13% percent.
Indirect benefit from the campaign resulted in an increase in dry kerbside recycling participation by 6% over the 2 month period.

Opened a new household recycling centre (HRC) at Sandycroft and closed Queensferry and Saltney HRCs due to the new site opening.
Improved the meet and greet system at the HRC to improve understanding of the recycling streams at the site. Waste is put in the right skip to allow for proper recycling and diversion from the landfill skips

Reviewed container types to maximise capacity and improve collection times – Introduction of the grey /silver reusable sack for plastic and cans. This should result in a reduced demand for replacement sacks based on visual appearance of the sacks, rather than being damaged.

What did not go so well:-

Improving the meet and greet system at the HRC to improve understanding of the recycling streams at the site moved to a phased

approach - Realised that given staffing levels not possible to do at all sites in one go during all opening hours

Achievement will be measured through:

- Improved recycling performance

Achievement Measures	Lead Officer	2013/14 Baseline Data	2014/15 Target	2016/17 Aspirational Target	2014/15 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%	62%	A	A

Risk 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	Target Date
(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	L	M	G	Continue collaboration with APSE and other Local Authorities to develop a suite of contracts in order to tender and potentially develop large scale energy schemes, that will contribute to the County's Energy needs, and revenue income	Chief Officer, Planning and Environment & Chief Officer Streetscene & Transportation	↑	M	M	A	Sep 2015

Risk Progress Summary for 2014/15

No budget has been allocated in 2015/16 for renewable energy schemes therefore a new collaborative approach as described has been devised and the risk altered accordingly to be an increasing risk.

Risk 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	Target Date
(L)	(I)	(Lxl)		(L)	(I)	(Lxl)				(L)	(I)	(Lxl)	
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	M	A	Recycling Markets have dipped during Q4 and predicted to be continued risk in 15/16. Apply the Technical Environmental Economic Practical to all collection services that do not follow Welsh Government recommended blueprint delivery - Partly completed. Rural rounds will have a specific recycling recovery vehicle which has been identified. This will be procured through CCP funding stream	Chief Officer, Planning and Environment & Chief Officer Streetscene & Transportation	↔	L	L	G	2018/19

		<p>Use the Kerbside Analysis Toolkit to assess that the rounds are working efficiently. (awaiting results, due in May) – linked to CCP funding.</p> <p>Use of Webaspx round optimisation software to improve fleet utilisation</p> <p>Invest to save funding – to provide an additional transfer facility which will enable to sort recyclable waste to improve quality.</p> <p>Investigate areas of good practice in other LA's to help increase participation by residents and increase income potential.</p> <p>Improve standards of meet and greet at Household Recycling Centre to divert recyclable waste from landfill.</p>		
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Risk Progress Summary for 2014/15

The current level of risk is amber (medium). The trend arrow reflects that the risk is currently being maintained at a medium level due to the need to prioritise funding so as to reduce service cost and also in consideration of the recent volatility in the recycle market which could adversely affect income to the service. The actions to further mitigate the risk to the targeted low level by 2018/19 are dependent on funding.

Risk 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	Target Date
(L)	(I)	(LxI)		(L)	(I)	(LxI)				(L)	(I)	(LxI)	
H	H	R	<p>Continue to invest in energy saving schemes. Currently Flintshire have installed 350 new lanterns including over 300 dimming units and over 500 new trimming photocells.</p> <p>Investigation into part night switching in 2 locations which will reduce carbon and energy usage whilst supporting extra benefits such as dark nights at sky. Both areas conflict with the current policy so are unable to be installed.</p> <p>Ongoing replacement of old sign and bollard technologies (to LED). Within Q1 Flintshire have replaced 27 units.</p>	L	L	G	<p>Policy change has been put forward for approval following Investigation into part night switching in areas which will reduce carbon and energy usage whilst supporting extra benefits such as dark nights at sky.</p> <p>Replace old photocells with new trimming photocells which switch on and off earlier and reduce the hours of operation by 20 hours per unit per year.</p> <p>Continue in the</p>	<p>Chief Officer, Planning and Environment & Chief Officer Streetscene & Transportation</p>	↔	L	L	G	Apr 2015

			<p>Continue to Dim 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>Continue to Replace old signs and bollards to LED which reduce operational visits to units and to reduce the level of energy usage</p>			<p>installation of dimming units as per the street lighting policy.</p> <p>Investigation and installation on a trial basis of LED lighting.</p>						
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Risk Progress Summary for 2014/15

The Street Lighting team has replaced 750 columns and lanterns in 2014/15 with the implementation of a new policy highlighting areas of new technology to help save energy and reduce carbon emissions. The installation of LED bollards and sign lanterns has helped to reduce the overall energy impact which in turn has reduced the overall carbon usage.

Once the new policy has been fully implemented the replacement of photocells to part night will reduce the burning hours of the lanterns thus reducing each unit's energy consumption and carbon output by up to 40% on average.

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

Progress Status	Progress RAG	G	Outcome RAG	G
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What we did in 2014/15:-
 Provided 2 new cycling infrastructures
 Ran 2 cycle to work schemes within Flintshire County Council
 Distribution of Flintshire's Cycling Leaflet.
 Distribution of the Linking Flintshire's Communities Leaflet
 Responded to 9 Travel Plans applications through the Planning Process
 Smart Travel training delivered to Flintshire's Communities First Staff
 Introduced the Welsh Government's Smarter journeys to schools toolkit to three schools
 Attended events to encourage sustainable travel

What went well:-
 Opening of the Talacre to Ffynnongroyw cycleway by the Deputy Minister for Farming and Food, Rebecca Evans AM and Leader of the Council, Cllr Aaron Shotton on Thursday 2 October. Data loggers will be installed on this route in 2015.
 Road Safety delivered cycle training to 648 children (year 6 pupils).

What did not go so well:-
 Talacre to Ffynnongroyw Shared use cycle scheme - Design complications arose on site at construction phase, however, these were resolved with no adverse effect.

Achievement will be measured through:

- Increased use of cycleways

Achievement Measures	Lead Officer	2013/14 Baseline Data	2014/15 Target	2016/17 Aspirational Target	2014/15 Outturn	Performance RAG	Outcome Performance Predictive RAG
IPE1M7 - Number of users on the cycleway networks evidenced through counter data	Chief Officer – Transport & Streetscene	82,500 users	120,000 users	150,000 users	353,000 users	G	G