ISLE OF ANGLESEY COUNTY COUNCIL				
Report to:	Executive Committee			
Date:	12 th June 2017			
Subject:	Energy Management Strategy 2017 - 2022			
Portfolio Holder(s):				
Head of Service:	Dewi R Williams			
Report Author:	Rhys Griffith			
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Local Members:	N/A			

A –Recommendation/s and reason/s

Recommend that the Executive approve the Energy Management Strategy 2017 – 2022

For numerous reasons which include the need to respond to National and Welsh Government strategies including the Well-being of Future Generations (Wales) Act 2015, prepare for rising energy costs and uncertainty of supply, reduce long term damage to the environment, and ensure we have the necessary people with the designated responsibility to make use of government grants that can reduce energy use. The strategy ensures that the council demonstrates its commitment to a long term reduction in energy use and carbon emissions.

B – What other options did you consider and why did you reject them and/or opt for this option?

None

C – Why is this a decision for the Executive?

To increase awareness of Energy Management issues.

CH – Is this decision consistent with policy approved by the full Council?

Yes – Council's Energy Policy previously agreed.

D – Is this decision within the budget approved by the Council?

Yes – No additional funding requested.

DD	– Who did you consult?	What did they say?
1	Chief Executive / Strategic Leadership Team (SLT) (mandatory)	Incorporated within the report.
2	Finance / Section 151 (mandatory)	No observations received.
3	Legal / Monitoring Officer (mandatory)	See D above.
4	Human Resources (HR)	
5	Property	
6	Information Communication Technology (ICT)	
7	Scrutiny	
8	Local Members	
9	Any external bodies / other/s	

E –	Risks and any mitigation (if relevant)	
1	Economic	 Lack of vision causes the greatest concern; an officer is required to lead on this rather than it being an additional task for an individual who probably already has a large workload. The Council may once again miss the opportunity to benefit fully from theopportuinty this work provides. Most of the financial savings for this service in Leisure could come from enegy savings, if correctly focused. A team of officers is required for this initiative to create the best schemes.
2	Anti-poverty	
3	Crime and Disorder	
4	Environmental	
5	Equalities	
6	Outcome Agreements	

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F - Appendices:

FF - Background papers (please contact the author of the Report for any further information):

Isle of Anglesey County Council

Energy Efficiency Strategy 2017 - 2022

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Foreword

Statement of commitment from the leader/chief exec/relevant portfolio holder or eEnergy cChampion?)

Achieving an affordable, low carbon and secure energy supply is vital for the future of the island. As fuel costs continue to raise year on year, the council needs take action now, to ensure we drive down our energy consumption, and look to provide local, low carbon energy sources.

This strategy sets out an ambitious target to reduce our energy use by 15% in the next five years. This can be done, within existing resources, provided that we have a sustained commitment to this strategy, ensuring we have the necessary staff and governance in place to drive forward projects that will have long term benefits to the council.

I am pleased to endorse this strategy that shows the council's long term commitment to reducing our energy use and carbon footprint.

Councillor Bob Parry Portfolio Holder Highways, Waste and Property

Why we need an Energy Efficiency Strategy – the rationale

Well-being of Future Generations (Wales) Act 2015

This act places a duty on public bodies including Ynys Mon Council to carry out sustainable development. The Act makes it clear that public bodies must work to achieve all of the wellbeing goals (appendix C). The first of these goals, 'A Prosperous Wales', states "An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change)..."

Damage to our Environment

As an Island, Ynys Mon is particularly vulnerable to the long-term effects of global warming and rising sea levels. One estimate suggests a rise of 2 degrees centigrade will lead to the sea rising by 7 metres within 500 years, having a devastating effect on our coastline. This strategy seeks to do our part to protect our future communities from the effect of climate change.

Rising energy costs

Ynys Mon Council's annual expenditure on energy and water was over £2.1million in 2015/16 (appendix B). The cost of fuel continues to rise above the rate of inflation. By adopting the recommendations in this strategy, the council can mitigate these future costs.

Uncertain Energy Supply

The UK is importing an increasing percentage of its energy from abroad and this means less security over supply and less price stability. The council can contribute to supporting and creating localised energy generation.

Government Commitment

The 2008 Climate Change Act established a legally binding climate change target. The aim is to reduce the UK's greenhouse gas emissions by at least 80% (from the 1990 baseline) by 2050.

Welsh Assembly Commitment

The Welsh Government published its own strategy Energy Efficiency in Wales 2016-2026. The vision in this strategy is for a more energy efficient Wales by 2025. "*We*

want to ensure that Wales is in the best possible position to realise its full energy efficiency potential and become a major exporter of energy efficiency, technology and know-how"

Fuel Poverty

The Welsh Government considers a household to be in fuel poverty when the cost of heating exceeds 10% of its income. Our Housing department-Service can continue to contribute to the aim of eradicating fuel poverty, by investing in well-insulated homes and providing local energy generation, such as solar power.

Economic Growth

Through the Energy Island economic development initiative, the council has made a significant start in developing and driving the potential for economic growth, supporting the growth of green jobs and skills, and increasing competitiveness of local businesses. The council needs to continue this role and seek out opportunities for development in the green economy.

Where are we now

Over the recent past a number of energy saving projects have been pursued and some have come to fruition. LED lighting has been installed in the main council offices, leisure centres and street lighting, which will generate considerable savings in future. New schools have been built to a BREEAM excellence standard with high levels of insulation using new energy saving technology. The housing stock has benefitted from extensive investment in external insulation and solar panels installed.

This has been an encouraging start but much more can and needs to be done because despite the above work, the level of carbon generated from energy use in our buildings across our estate has changed very little since 2010.

The Aim

The **aim** of this strategy is for the Isle of Anglesey County Council by 2022 to have reduced its energy consumption by 15% and for us to have begun our journey so that all our energy consumption comes from a carbon neutral source by 2050

The key objectives which this strategy identifies in order to meet this aim are -

- Reduce overall energy use of our estate, therefore decreasing associated spend
- Encourage the generation of green, renewable energy on the island by leading from example
- Stimulate business opportunities and job creation arising from the green economy

In order to achieve this challenge we will ensure year on year improvement through -

- o investing in low carbon technology,
- ensuring our buildings are constructed to the highest energy efficiency standards,
- incorporating the latest in innovative energy saving and generation technologies.

To realise this, we will take advantage of government grants and loan schemes to retrofit existing buildings and ensure all new buildings are constructed to the highest possible energy efficiency standard.

We will ensure all our policies, processes and procedures consider this agenda whilst encouraging and enthusing people and communities across Anglesey to recognise the benefits of a low carbon future for all.

How we will deliver the key objectives

This strategy is the corporate framework that will enable energy management to develop and integrate with other activities to ensure energy use is considered as part of our core thinking. Many of the council's policies, processes and decisions will have an effect on our use of energy.

To achieve our objectives we will need to -

- 1 ensure that everyone in the council understands their role;
- 2 report regularly on progress and energy use;
- 3 ensure compliance with regulation;

- 4 develop projects to reduce usage based on the prioritisation of the intelligence gained which demonstrates that the greatest energy consumption is in
 - i. Schools
 - ii. Leisure Centres
 - iii. Street Lighting;
- 5 consider energy efficiency issues when purchasing goods and services and energy supply;
- 6 keep track of our energy use through metering and monitoring;
- 7 ensure regular training and development on energy efficiency and new technology;
- 8 ensure new buildings consider the long term aim of being carbon neutral;
- 9 ensure the asset management plan incorporates this energy strategy
- 10 consider the need to revise the energy policy when necessary

Roles and Responsibilities

Energy Manager

The Principleal Surveyor in Property Services will take on this additional responsibility. The eEnergy mManager will;

develop and project manage the energy action plan;

monitor and report on energy use, cost and related carbon emissions;

identify and implement opportunities for reducing energy consumption and for using lower carbon sources of energy;

keep abreast of the latest regulation requirements to ensure compliance;

identifying sources of financial funding for energy efficiency investment;

liaise with external support;

chair the energy saving board;

promote energy saving throughout the council.

Corporate Energy Champion

The Portfolio Holder for Highways, Waste and Property will also act as the Corporate Energy Champion and will have Appointed by the Leader of the Council as being an elected member, the Corporate Energy Champion will have a keen understanding and interest in promoting energy efficiency and ensuring energy issues are considered in the decisions of the council.

Departmental Service Energy Champions

Relevant departments will appoint one member of staff to act as a departmental energy champion. The departmental energy champion will attend quarterly meetings of the eEnergy saving bBoard, assist with the development of energy projects, promote energy saving within their department, encourage others to save energy, and ensure compliance with the energy policy.

Energy Conservation Officer

Will work to assist the Energy Manager, monitor energy use through the use of appropriate software, assist with monitoring energy projects and all aspects of the energy efficiency plan.

Procurement

The <u>c</u>orporate procurement team will ensure that priority is given to ensure that products and equipment are of the highest standard of energy efficiency. The council can make a significant contribution to reducing energy by ensuring we purchase the most energy efficient IT equipment, low energy fridges etc. The energy manager and procurement staff will review the procurement process in order to ensure energy efficiency is given a high priority when purchasing products.

Heads of Service

Heads of <u>sS</u>ervice will ensure that the effect of energy use is considered in all <u>departmental services</u> policies and procedures. Heads of Service will promote energy efficiency amongst staff in their departments.

Senior Accountant

Will be responsible for ensuring accurate reporting against the spend on energy usage across the Council for consideration of the Corporate Land and Built Assets Group service review meetings twice annually.

All Staff

All staff need to be aware of the need to save energy. Switching off lights and IT equipment when not in use, turning down heating, etc. Small acts of energy saving can lead to significant savings if everyone takes part.

Governance Arrangements

The energy strategy has key links with a number of other strategies in the council, most importantly the asset management plan for the authority. Consequently, the Energy manager will be invited to attend the Corporate Land and Building Assets Group (CLBAG) to regularly report on progress against the energy efficiency plan and ensure energy efficiency is given consideration when deciding on options for future assets.

The Energy Manager will also if requested present reports to the Senior Leadership Team outlining progress against the plan and outlining future opportunities which may arise.

The Energy Manager will also chair an energy efficiency project board meeting consisting of operational officers undertaking the work to gain assurances that matters are being dealt with, issues / risks are identified and highlight reports are drafted for the consideration of the CLBAG and thereafter the Corporate Programme Board meeting via exception.



The energy efficiency project board, chaired by the Energy Manager and consisting of energy champions from each department, <u>service</u> and in particular, representatives from Finance, Economic Development and Housing, will create a list of potential projects, examine potential sources of funding, decide on priorities and suggest which projects should be given the go ahead.

This priority list will then be presented to the Land and Building Assets group for approval. The <u>e</u>Energy <u>mM</u>anager will project manage these projects to completion. The <u>e</u>Energy <u>mM</u>anger will liaise with the various external agencies including Local Partnerships and Refit Cymru, who have been appointed by the Welsh Assembly to provide free advice and support to local authorities to develop projects. The <u>e</u>Energy <u>mM</u>anger, with support from appropriate members of the Energy group

and external agencies, will prepare business cases in order to secure funding for energy saving and energy generation projects.

Once projects are completed, energy use will be carefully monitored for individual buildings in order to ensure the projected savings are achieved and inform ideas for future projects.

Regulation

The energy manager will monitor changes in legislation and national policies to ensure compliance with regulatory requirements. These include;

- The 2008 Climate Change Act which established the world's first legally binding climate change target. It is designed to reduce the UK's greenhouse gas emissions by at least 80% (from the 1990 baseline) by 2050.
- Carbon Reduction Commitment (CRC) Energy Efficiency Scheme, which aims to cut carbon dioxide emissions from large commercial and public sector organisations by 1.1 million tonnes of carbon per year by 2020. The CRC Energy Efficiency Scheme is a UK emissions trading scheme which began in April 2010. The scheme currently applies to organisations if they use at least 6,000 Megawatt hours of electricity a year. Ynys Mon currently falls below this threshold however the threshold may lower in future years.
- *Well Being of Future Generations Act 2015,* which imposes a duty on the council to carry out sustainable development.
- Welsh Governments Energy Efficiency in Wales Strategy 2016-2026, which sets out the Welsh Governments aims and objectives for energy savings over the next ten years, which includes actions to incentivise local authorities to have a clear commitment to energy efficiency.
- Energy Performance Certificates Energy Performance and Display; as part of the UK's compliance to the EU's Energy Performance of Buildings Directive (EPBD), Energy Performance Certificates and Display Energy Certificates are now required to be displayed in all public buildings over 250m2. Energy Performance Certificates (EPCs) and Display Energy Certificates (DECs) have been mandatory since October 2008. EPCs provide the calculated asset energy performance rating of a new building, meaning the performance of the building fabric, plant equipment and lighting. An EPC is required on construction, sale or rent of a building. DECs provide the measured operational energy rating. They are produced annually using actual energy consumption and are presented with results from previous years. DECs are primarily intended to be displayed within public buildings though they may be displayed in private buildings voluntarily.

Finance

In order to reduce energy costs initial investment is required to install energy efficient plant and machinery such as biomass boilers, solar panels etc. The payback period for these projects varies according to the plant installed and also the potential for grants/finance available. Possible funding includes the Feed in Tariff (F.I.T.) and the Renewable Heat Incentive (RHI).

Feed In Tariff (F.I.T.). If the authority were to install an electricity-generating technology from a renewable or low-carbon source such as solar PV or wind turbine, the UK Government's Feed-in Tariffs scheme (FITs) could generate income from the energy supplier. As well as saving on reduced electricity costs, payments are available through the F.I.T. scheme, for the electricity generated and for any surplus electricity exported to the grid. However, the FIT payment rates have reduced considerably in recent years.

Renewable Heat Incentive (RHI) The non-domestic Renewable Heat Incentive (RHI) helps businesses, public sector and non-profit organizations meet the cost of installing renewable heat technologies. Payments are made over 20 years and are based on the heat output of the system installed. Payments are made once the scheme has been completed and approved. There is a limited budget for this grant and no guarantee of obtaining it before carrying out the work. Therefore there is a risk involved as it cannot be presumed that the grant will be paid

SALIX Wales Funding Programme. Welsh <u>gG</u>overnment have made a range of 0% finance offers available for funding Energy Efficiency projects. Managed by Salix Finance ltd. the Council may qualify for either a traditional Salix loan or an Invest to Save Grant. The application process is common to both, however to qualify, projects must satisfy both the payback criteria of a simple payback of less than 8 yrs and the <u>efficacy_efficiency</u> criteria of a maximum of £200 per Tonne of CO2 saved over the lifetime of the measures installed.

If successful there is a provision to repay the loans over a period of 10yrs to allow the council to benefit immediately from the reduction in Energy.

External Finance Companies

The authority has been approached by various companies offering to undertake energy saving projects free of charge. The companies concerned do so on the basis that they benefit from FITS payments or RhiHI payments over a fixed period (usually twenty years). The schemes on offer so far have been of poor value, not offering any significant long term financial benefit to the authority. Certainly it would be better for the authority to carry out and fund the work itself, thereby making the most saving. However, if the authority cannot find the available funding either by its own Capital or through SALIX, then these offers should be considered as they will reduce the authorities carbon emissions if not generate economic savings.

Refit Cymru Re;fit is a UK wide, OJEU procured Energy Performance Contract Framework. It offers energy savings that are guaranteed by the service providers and provides both Scale and Pace to the councils Energy Efficiency projects. It achieves this by undertaking projects on large portions of the estate across a number of project phases. Each phase is typically around £0.5m-£1.5m. It is supported in Wales by the Programme Implementation Unit which benefits from being 90% funded through the European ELENA fund. This significantly reduces the indirect costs of undertaking a Re;fit project compared to elsewhere in the UK. Re:fit projects can be funded from multiple sources including Self finance, Salix, Invest to Save and there is an option to ask the service providers to provide funding if necessary.

Capital Finance; ideally, the authority should consider providing capital finance for energy saving projects. The energy manager will bid each year for energy saving projects.

Planned and Reactive Maintenance

Budgets for planned and reactive maintenance are limited to vital health and safety issues, legal compliance and business continuity. Consequently no funding is available for projects targeted at specific energy saving. However, some planned works such as boiler replacements will have a small contribution to energy saving. Whenever possible, all maintenance projects will consider how best to reduce energy as part of the project including the potential of part funding the project to carry out additional work that would increase the benefits of reduced energy use. For instance, LED lighting could be installed as part of a rewiring programme, with the additional costs of the lighting funded through a Salix loan scheme.

Metering and Monitoring

Careful monitoring of energy consumption at individual building level is vital to ensure we target a programme of work at the buildings that can generate the most savings, as well as spotting anomalies in billing and spikes in energy use. The council's current software for this is in need of replacement to allow for improved targeting and energy data, as well as billing validation.

Training and development

The rapid changes in available low energy technologies means that keeping up with change and opportunities requires regular training for the <u>eEnergy</u> <u>mM</u>anager and <u>eEnergy</u> <u>eC</u>onservation <u>eO</u>fficer. Appropriate training will be arranged for both officers. In addition, the <u>eEnergy</u> <u>eC</u>hampions will need to review training needs and appropriate training arranged where possible.

Energy Str	ategy		Project Manager	Rhys Griffith	01248 752161
Action Ref.	Objective & Action	Action Owner	Progress/Comments	Start Date	End Date
1	Ensure everyone understands their role			•	
1.01	Appointment of key energy champions	HoS		MayJuly-17	July 17
1.02	Initial meeting of the energy saving board	Energy Manager		MayJuly-17	July 17
2	Report regularly on progress and energy use				
2.01	Report to Land and Assets group	Energy Manager		Monthly	ongoing
2.02	Report to SLT	Energy Manager		Annually	ongoing
3	Ensure compliance with regulation				
3.01	Review latest developments	Energy Manager		MayJuly-17	ongoing

4	Develop Projects to reduce energy			
4.01	In consultation with Refit Cymru and Local Partnerships, develop an annual programme of potential projects	Energy Manager	MayJuly-17	ongoing
4.02	Land and Assets Group to agree proposed programme of work	Energy Manager	<u>July</u> May-17	ongoing
4.03	Project manage the projects	Energy Manager	Ongoing	
5	Consider energy issues when purchasing goods and services and energy supply			

5.01	Review procurement policy	Energy manager/Procurement		Dec-17	
5.02	Review energy purchase policy	Energy manager/Procurement		Dec-17	
6	Keep track of energy use through metering & monitotring				· · · · · · · · · · · · · · · · · · ·
6.01	Review current software and consider replacement	Energy manager/Procurement		Jan-17	<u>Jul-17</u>
7	Ensure regular Training and Development on energy issues and technology				
7.01	Review training needs of the energy board	Energy Manager		Jun-17	ongoing
8	Ensure new buildings consider the long term aim of being carbon neutral				
8.01	Energy Board to consider	Energy Manager		May-17	ongoing
9	Ensure the asset management plan incorporates the energy strategy				·
9.01	Initial discussion with Asset Manager	Energy Manager		May-17	ongoing
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10	Consider the need to revise the Energy Policy				
10.01	Consider the need to review the energy policy	Energy Saving Board	May-17	ongoing	

APPENDIX A ISLE OF ANGLESEY COUNTY COUNCIL BUILDING ENERGY AND WATER SAVING POLICY DECLARATION OF COMMITMENT

Policy Statements

Isle of Anglesey County Council will:

- 1. Make available sufficient resources at corporate and Service level for the effective management of energy and water.
- 2. Educate and raise awareness of energy and water issues among technical staff and develop Continuing Professional Development (CPD).
- 3. Give priority to reducing energy demand, rather than installing or upgrading heating systems, where practicable to do so.
- 4. Consider energy and water resources when procuring or maintaining plant and equipment (including office equipment) and also when planning new projects.
- 5. Avoid propane gas and heating fuel oil as building energy sources.
- 6. Define roles and responsibilities for energy and water so they can be managed efficiently and establish clear reporting procedures.
- 7. Establish and implement procedures for efficient operation of plant and equipment.
- 8. Establish ownership of energy and water costs at service level.
- 9. Raise awareness amongst employees of good practice regarding energy and water resources.
- 10. Investigate and implement means to purchase energy at the most costeffective price.
- 11. Investigate external renewable energy sources and, if practicable, purchase a proportion generated from such sources.
- 12. Reduce emissions of carbon dioxide to agreed targets.
- 13. Invest in new technologies, including renewable energy technologies, where this meets investment criteria.
- 14. Develop energy and water efficiency projects and invest in energy and water saving technologies, processes and equipment.
- 15. Report annually on energy and water performance.

APPENDIX B

Ynys Môen Expenditure on energy and water 2015/16

Electricity	1,122,774
Gas - Natural	439,047
Gas - Propane, Butane, Calor	71,922
Fuel / Oil	92,962
Pellets	6,661
Water services	269,097
Welsh Water - Sewerage <mark>s</mark>	43,178
Other sewerage disposal	64,429
Total	£2,110,070

Appendix C; Well Being of Future Generations (Wales) Act 2015; Goals

A Prosperous Wales

An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.

A Resilient Wales

A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).

A Healthier Wales

A society in which people's physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.

A More equal Wales

A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio economic background and circumstances).

A Wales of cohesive communities

Attractive, viable, safe and well-connected communities.

A Wales of vibrant culture and thriving Welsh language

A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.

A Globally Responsible Wales

A nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.

Appendix D

Energy Consumption					
	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Natural Gas kWh	15,380,886	11,982,796	13,593,642	14,001,274	14,043,419
Co2 Tonnes	2,845	2,217	2,515	2,590	2,598
LPG kWh	3,841,897	3,235,976	3,639,758	2,902,404	3,151,855
Co2 Tonnes	822	692	779	621	674
Heating Fuel Oil kWh	3,160,935	2,358,062	2,609,395	1,711,714	1,833,763
Co2 Tonnes	869	648	718	471	504
Electricity kWh	12,784,450	13,152,475	12,771,331	12,650,316	12,264,982
Co2 Tonnes	6,968	7,168	6,960	6,894	6,684

TOTAL kWh	35,168,168	30,729,309	32,614,126	31,265,709	31,294,019
Total CO2 (Tonnes)	11,504	10,726	10,972	10,576	10,461
Degree Days (no. of hours below 15.5)	2,102	1,625	2,199	1,765	1717



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