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AGENDA

Committee	ENVIRONMENTAL SCRUTINY COMMITTEE
Date and Time of Meeting	TUESDAY, 12 JULY 2016, 4.30 PM
Venue	COMMITTEE ROOM 3 - COUNTY HALL
Membership	Councillor Mitchell (Chairperson) Councillors Aubrey, Clark, Chris Davis, Hill-John, Lomax, White and Darren Williams

Time approx.

1 **Apologies for Absence**

To receive apologies for absence.

2 **Declarations of Interest**

To be made at the start of the agenda item in question, in accordance with the Members' Code of Conduct.

3 **Minutes** (*Pages 1 - 14*)

To approve as a correct record the minutes of the Environmental Scrutiny Committee held on 18 May 2016 and the Joint Scrutiny Committee held on 6 June 2016.

4 **Cardiff's Energy Prospectus** (*Pages 15 - 82*)

4.40 pm

- (a) The Director for City Operations to make a statement on Cardiff's Energy Prospectus (if he wishes).
- (b) An officer from the City Operations Directorate to deliver a presentation based on Cardiff's Energy Prospects.
- (c) Officers from the City Operations Directorate will be available to answer Member questions.

5 **Way Forward**

5.25 pm

6 Date of next meeting

The next meeting of the Committee will take place on 6 September 2016.

David Marr

Interim Monitoring Officer

Date: Wednesday, 6 July 2016

Contact: Graham Porter, 029 2087 3401, g.porter@cardiff.gov.uk

ENVIRONMENTAL SCRUTINY COMMITTEE

17 MAY 2016

Present: County Councillor Mitchell(Chairperson)
County Councillors Clark, Chris Davis, Hill-John, Lomax, White
and Darren Williams

80 : APOLOGIES FOR ABSENCE

No apologies for absence were received.

81 : DECLARATIONS OF INTEREST

No declarations of interest were received.

82 : MINUTES

The minutes of the meeting held on 19 April 2016 were approved by the Committee as a correct record and were signed by the Chairperson.

83 : CITY OPERATIONS DIRECTORATE - QUARTER 4 PERFORMANCE
REPORT 2015/16

The Committee received the City Operations Directorate Quarter 4 2015/16 Performance Report. The report was supported by a summary of the overall Council performance, such as revenue projections, savings summaries, sickness rates and complaint levels. Members were asked to consider the performance data and feed in observations to support the Cabinet's consideration of the Quarter 4 performance report.

The performance report examined a wide number of issues including projected budget outturn; projected savings outturn; progress against directorate plan/corporate plan actions; progress against performance indicators; progress against challenges identified at Quarter 3, etc. A range of Council-wide performance information was also included, so that Members may benchmark against other service areas and Council performance as a whole.

The Committee was asked to note that the financial information in the report was only accurate for the first 11 months of the year as the data for month 12 was not available as the year-end accounting process had not yet been completed.

Members received a summary of the key observations identified in the performance report. The following 'Key Performance Indicators' were marked as 'Amber' and 'Red':

- PLA/004(a) – The percentage of major planning applications determined during the year within 13 weeks (Red)
- PLA/004(c) – The percentage of householder planning applications determined during the year within 8 weeks (Amber)

It was noted that four of the indicators published in the City Operations Directorate are annual and one is new, therefore, no results are available for these as the data is still being collected, interrogated and verified.

The Chairperson welcomed Councillor Ramesh Patel, Cabinet Member for Transport, Planning and Sustainability; Councillor Bob Derbyshire, Cabinet Member for the Environment; Andrew Gregory, Corporate Director; David Lowe, Operational Manager. Councillor Derbyshire made a brief statement. Councillor Derbyshire stated that the Directorate's Performance Indicators were generally moving in the right direction and were improving on the previous year's results. Whilst, there was still room for further improvement, the results were positive.

David Lowe was invited to deliver a [presentation](#) on the Environment aspects of the report. Members were invited to comment, raise questions or seek clarification on the information provided. Those discussions are summarised as follows:

- The Committee sought clarification for the difference the recycling figures for Q1 in the report (57%) and in the presentation (64%). Officers agreed to verify the reason for this variation and report back to the Committee.
- Officers confirmed that whilst the authority was currently paying for glass recyclables to be removed and that until such glass is removed from the MERF it did not count towards the recycling figures.
- Responding to a question from the Committee, Officers stated that the move towards stronger enforcement for environment breaches was on schedule. The Cabinet has received a report on these proposals. The project would be phased in during the next 3 to 6 months. Members were advised that an online register providing details of the licences issued for skips on the highway was to be produced as part of the process.
- A Member sought clarification on a point regarding the classification of fly tipping and waste presentation in terms of enforcement. At a previous meeting officers had advised that this information was easy to capture but a response to a question asked at Council stated that the data was not collected. Officers stated that if education or enforcement action was taken as a result of the incorrect presentation of waste then there would be a record. Officers agreed to provide further clarification.
- The Committee considered that the incorrect presentation of waste was an important issue. Members suggested that it would be useful to receive a report which identified areas where there would be waste presentation problems and the action taken by the service area to address these issues. This would enable trends to be identified and resources to be used in a more focussed manner. The Cabinet Member stated that this was an issue where the service area could improve. The Cabinet Member agreed to provide details of the number of warning letters, notices and fines had been issued within each ward of the City during a specified time period. The Committee noted that similar data for parking notices was routinely provided to all Members.
- Members asked why there was a variation in the Q1 figure for PI WMT/004b – the percentage of waste collected sent to landfill – in the report (12.2%) and in the

presentation (4.7%). Officers stated that the latest figures were provided in the presentation and agreed to provide further clarification. The Cabinet Member stated that the amount of waste collected and sent to landfill would be virtually zero from April 2016 as 100% of waste would be sent to the energy from waste facility.

- Members requested an update on the 'Bin Info' app which would be used to replace the 'Tidy Text' scheme. Members were advised that the app was live. All 'Tidy Text' subscribers will soon receive a text message advising them to download the 'Bin Info' app. The Bin Info app would cost the authority £10k per annum.

Andrew Gregory was invited to deliver a [presentation](#) on the Strategic Planning, Highways, Traffic and Transportation aspects of the report. Members were invited to comment, raise questions or seek clarification on the information provided. Those discussions are summarised as follows:

- The Cabinet Member confirmed that officers would work with developers to develop the road network and metro system. The LDP is clear on this point. Developers will also need to make financial contributions to such schemes. The authority has also developed a design template for developers to produce sustainable communities; these would include segregated cycle routes and public transport in their design. The Metro scheme was controlled by the Welsh Government and would be assisted greatly by the City Deal.
- Members asked whether Performance Indicators in the Planning Department were realistic and whether there was any scope for further increasing income. Members were advised that Planning PIs are realistic and are being monitored weekly. Officers accepted that staff were pressurised by that pressure was being used to help staff think about what they do and guide processes. Fees were increased recently and the authority was now able to charge for Planning Performance Agreements (PPAs).
- In response to a question from the Committee, officers stated that the development of SPGs would assist Planning enforcement officers proactively tackle some of the issues discussed previously by the Committee. The Cabinet Member advised that he was more than happy to address local issues with Ward Members.
- A Member suggested that it was not possible for everyone to view planning applications via the online portal. Furthermore, it was not always possible for every individual to make representations via email and therefore it was difficult for some members of the public to engage in the planning application process. Officers agreed to confirm whether it was possible to view planning applications in person at County Hall.

AGREED – That the Chairperson writes on the Committee's behalf to the Cabinet Member to convey their comments and observations.

The Committee received a report on the draft 'Highway Asset Investment Strategy', which aims to define a strategic long-term approach to highway maintenance funding by outlining a series of service and funding options. The Committee was asked to consider the content of the strategy, and the future budget funding proposals, prior to the Strategy being presented to the Cabinet.

The report included a summary of the background to the Highway Asset Investment Strategy (HAIS). The total replacement cost of the highways asset in Cardiff was estimated to be approximately £2.3 billion. Traditionally Highways Maintenance budgets have been set on an annual basis, which creates a short-term reactive approach to management and improvement. The HAIS seeks to adopt a long-term approach to Highway Maintenance based on sound Asset Management principles as endorsed by the Welsh Government and the CCS Wales (County Surveyors Society Wales).

Members were asked to note that the UK Government was proposing to make £575 million available between 2015 and 2021 to improve highway infrastructure across the whole network. The distribution of this grant would be aimed at authorities demonstrating an existing sound asset management approach to highway maintenance. The HAIS advocates such an approach.

Members were advised that the historic approach to Highway Maintenance has resulted in fluctuating budgets. This prevents to development of a long term investment strategy which in turn leads to the following issues:

- Highway assets are managed separately thus limiting efficiency opportunities;
- Inability to set long-term targets and define acceptable backlogs, e.g. road condition;
- Levels of service vary over the short-term;
- It will limit the opportunity to adopt a long term strategic approach thus creating the situation where the maintenance backlog continually increases.

Members were requested to appreciate the principle that the level of funding for Highway Maintenance has a direct correlation to the future condition of the asset, i.e. the lower the level of funding, the poorer the condition of the asset and the faster its deterioration. The report included future forecasts of carriageway condition based on different levels of investment over a period of 20 years. The Committee noted that any investment less than 'Steady State' would result in deteriorating condition and consequential increase in maintenance backlog over time.

The Chairperson welcomed Councillor Ramesh Patel, Cabinet Member for Transport, Planning and Sustainability; Andrew Gregory, Corporate Director; Gary Brown, Operational Manager – Assets, Engineering and Operations; and Andrew Greener, Team Leader, Assets.

Andrew Gregory made a brief statement. The Committee was advised that it was a service area priority to take a long-term view of the Authority's biggest asset. The condition of the asset; the condition of the carriageway, was an important issue for the public and could be used to gauge how the Council was performing. The Highway Asset Investment Strategy sets out how the asset can be maintained. The next stage is to agree how the Strategy it to be funded.

Gary Brown was invited to deliver a [presentation](#) on the Highway Asset Investment Strategy. The Committee was invited to comment, seek clarification or raise questions on the information received. Those discussions are summarised as follows:

- The Cabinet Member advised that he would continue to lobby the Welsh Government for additional funding to address problems with the deteriorating conditions of the capital's roads.
- Officers advised that many roads were deteriorating due to the composition of the materials used during the construction of the most recent roads. The standard of materials used in the UK was less robust than that used on the continent. It was stated that it is still possible to rectify these problems if the service area is able to begin repairs in time, though high speed routes would take longer and be more expensive to repair. Older road surfaces were more robust - repairs are now being carried out using equivalent materials with a longer life in order to prevent further deterioration of the carriageway.
- Members asked whether buses and road calming features were causing deterioration to the road surface. Officers agreed that there was a recognisable problem caused by heavy loading on the road surface on traffic calming features. The Cabinet Member stated that the proposed 20mph zones in the City would not require traffic calming features. The Cabinet Member was unable to give an indication of the likely level of savings that would be achieved if such traffic calming features are removed from 20mph zones.
- Members asked whether the Highway Asset Investment Strategy could be funded from parking/moving traffic offences fines. Officers stated that, potentially, income could be aligned with the HAIS but no agreement has been reached. The Cabinet Member stated that there was huge demand for further investment in cameras and an additional camera car to aid enforcement in the City.
- Responding to a point made by a Member of the Committee, the Cabinet Member stated that no comments had been received from South Wales Police as part of the 20mph pilot scheme in Cathays regarding traffic calming features in the area. South Wales Police had been given an opportunity to provide feedback – none was received.
- Officers confirmed that the proposals for 'steady state' investment strategy applied to the authority's pavements also.
- The Cabinet Member indicated that there was some evidence to suggest that flashing speed signs were effective. Some signs also record data so it was possible to study the data in order to gauge the effectiveness of the signs.
- Officer stated that the authority was taking a proactive approach to gully cleansing and drain clearing in accordance with flood management requirements.

AGREED – That the Chairperson writes on the Committee's behalf to the Cabinet Member to convey their comments and observations.

The Committee received the draft Environmental Scrutiny Committee Annual Report 2015/16. The report reflected the work of the Committee during the previous 12 months. Members were asked to provide feedback or comment on the draft annual report.

AGREED – That the Environmental Scrutiny Committee Annual Report for 2015/16 be approved.

86 : CORRESPONDENCE

The Committee received copies of correspondence sent and received in relation to matters previously scrutinised by this Committee.

AGREED – That the correspondence report and attached documentation be noted.

87 : DATE OF NEXT MEETING

Members were advised that the next Environment Scrutiny Committee is scheduled for 14 June 2016.

The meeting terminated at 7.30 pm

JOINT SCRUTINY COMMITTEE

6 JUNE 2016

Present: County Councillor Mitchell(Chairperson)
County Councillors Clark, Hill-John, Howells, Lomax, Murphy,
Sanders, Walker, White and Darren Williams

1 : CHAIRPERSON

The Committee appointed Councillor Mitchell as Chairperson.

2 : APOLOGIES FOR ABSENCE

No apologies for absence were received.

3 : DECLARATIONS OF INTEREST

No declarations of interest were received.

4 : PRE DECISION OF THE DRAFT CABINET REPORT TITLED
'INFRASTRUCTURE SERVICES ALTERNATIVE DELIVERY MODEL: NEXT
STEPS'

The Committee received a report providing an opportunity for Members to scrutiny the Infrastructure Services Full Business Case prior to the proposals being presented to Cabinet for approval on 16 June 2016. Members were recommended to focus the scrutiny on the outcomes of the Infrastructure Services Full Business Case analysis; the rationale behind the recommendations in the full business case; and the next steps and other future actions to be taken to deliver the In-House option.

The report set out the background to the Infrastructure Services Alternative Delivery Model project, which had sought to identify ways to transform some of the Council's key frontline services by implementing measures to improve service performance and deliver savings. A number of services delivery model options were evaluated and the results of the exercise formed the basis of the Infrastructure Services Final Business Case, which was appended to the report.

The Committee was advised that the project has produced some service improvement; for example, the development of a Neighbourhood Services approach and an increase in revenue from the Commercial Waste Service. Best practice approaches from across the United Kingdom were also explored.

The objectives of the Infrastructure Services Alternative Delivery Model project were to:

- reduce operating costs
- improve outcomes to address current performance weaknesses
- improve customer satisfaction, demand management and reduce failure demand, to more effectively address the increasing demand for services;
- develop effective partnership and collaborative working
- optimisation of income generation to support core funded services

A summary of the previous consideration of the project by the Cabinet was provided, along with details of the previous scrutiny of this matter.

Members were advised that stakeholder engagement was carried out with unions, staff and Cardiff residents and this was used to inform the evaluation of the service delivery models. A summary of the engagement activity and the feedback received was provided to the Committee.

The template used to evaluate that Outline Business Case was also used as the basis for the Full Business Case. This reflected the Office of Government Commerce best practice standard, as recommended by HM Treasury for use by public sector bodies when evaluating public sector proposals. The Full Business Case focused on the development of five-year service strategies for each service area in scope and an overarching strategy for the service as a whole. The impact of the two delivery models on these strategies was then considered.

The Committee was advised that the key theme identified during the evaluation process was the inconsistency of current management approaches to the delivery of related or inter-dependent services. It was suggested that the result of this approach is fragmentation with limited evidence to build synergies between similar services. The Full Business Case adopted a new approach of putting services into clusters to capitalise on opportunities for service improvement and income generation. The proposed new clusters were:

- Recycling Waste Management Services
- Total Facilities Management
- Fleet Services
- Neighbourhood Services
- Highways
- Design Services

Some services were able to start trading immediately, whilst others have the potential to become more commercial but will require intensive support to increase their capacity to generate income. In community facing services, such as street cleansing, the key issue related to the need to increase productivity and efficiency, and to bring about wider cultural changes.

There were also opportunities to collaborate with neighbouring authorities for all services within scope. It was considered that collaboration was more likely to happen following the establishment of a suitable partnership model. The opportunities for collaboration were set out in the Full Business Case. Members were asked to recognise that a collaborative model can take some time to become established and therefore, the benefits in the Full Business Case are profiled over five years.

The respective service strategies each considered trading opportunities, mainly in the areas of developing existing streams and identifying potential new markets. It was considered critical for all services within scope to become 'fit for purpose' and provide sustainable and efficient services in the long term, so that the ability to trade could be improved. In order to achieve this it was felt that the Council will need to:

- Complete a thorough review of budgets for the services in scope which ensures they are in alignment with future strategies to include clear income and cost analysis;
- Ensure that branding is created that optimises dual brand of being public sector and commercial;
- Develop a marketing strategy and website aligned with branding and business development strategy;
- Map out common customers across services both internal and external;
- Create a business development plan for each service and across the services in scope with differentiation between immediate opportunities and a longer-term strategy once services are fit to trade. A clearer understanding of target markets, sectors and customers' needs to be developed as well as sources of trading opportunities.
- Establish a pricing strategy which has clear commercial principles and ensures competitive pricing without subsidising the customer, ensuring that the Council demonstrates compliance with the State Aid principles and legislation;
- Increase the Council's commercial capacity;
- Consider the extent to which the Council should utilise the services in scope rather than promoting third party spend as long as value for money can be demonstrated and the specific services in scope are given sufficient time to become competitive.

The report provided the Committee with a summary of the financial analysis full business cases. Members were advised that the development of the FBC helped to define and instigate an agenda for change, whilst raising awareness of commercial opportunities. In-house services were challenged to engage to see how improvements could be made. There was also a growing understanding of the need to embrace commercial thinking and generate better understanding of cost control and investment in assets to support traded income.

The FBC report indicated that a Wholly Owned Company (WOC) could provide the Council with greater benefits over the full five year period, although those additional benefits are mainly delivered in years 3 to 5. The report also stated that the delivery of savings and additional income in 2016/17 and 2017/18 remain a key priority.

Furthermore, the establishment of a company governance structure, financial, ICT and operating arrangements will bear heavily on resources in the critical two-year period. This would in turn put at risk the delivery of the frontline changes needed to secure immediate savings.

The FBC report suggested that there is significant variance in the readiness of services to trade, with cost base analysis, ICT, staff training and marketing strategies in some services being inadequately developed. Areas requiring improvements were identified in the report, including, productivity, insufficient technology, and ineffective working and management practices. All services need to improve cost control, optimise existing and new income streams and minimise external spend.

The report stated that the debate between in-house and WOC is less significant than the implementation of a single consistent approach to improvement. Common requirements for success in either model are consistent.

The modified in-house approach will involve realigning in-scope infrastructure services into two complementary programmes, namely:

- Developing Cardiff's Commercial Services
- Transforming Neighbourhood Services

At the heart of this approach would be intensive, high impact service improvement interventions overseen by a proposed Commercialisation and Accelerated Improvement Board (C&AI Board) comprising relevant Directors and external representatives. The Board's mandate would be to drive commercialisation and productivity across the Council as a whole. The report summarised how the workstreams would be integral to the Council's wider Organisational Development arrangements and also ensure oversight and support at a strategic level to all commercial projects in the Council.

Members were advised that the key enablers required for the successful implementation of the ADM cut across a number of areas and would need to be progressed promptly in order to deliver improved financial and service delivery outcomes. These are:

- Implementation of Fleet Management Information Technology (FMIT) package for the Central Transport Service;
- Implementation of a new enterprise architecture including rostering, scheduling and mobile working technology to facilitate operational efficiencies and improve customer services;
- Development of a commercial brand together with a commercial website;
- Completion of review of the Fleet and Building Services Frameworks;
- Strong support for the introduction of apprenticeships and developing links with the NEETs agenda;
- Adoption of a 'One-Council' approach to asset management, investment, development and maintenance in respect of the Council's infrastructure assets;
- A comprehensive review of the budgets of all the services in scope to develop a thorough understanding of the essential expenditure and income for control of budgets to support the future delivery model;
- On-going effective engagement of the Trade Unions and employees regarding the operational improvements identified within the service and 'overarching' strategies;
- Support to explore collaboration opportunities with other council's and public bodies; and
- Appropriate internal and external resources to support the programme Timeline.

The report included the Year 1 headline timeline.

The Chairperson welcomed Councillor Graham Hinchey, Cabinet Member for Corporate Services and Performance and Councillor Bob Derbyshire, Cabinet Member for the Environment to the meeting. The Cabinet Members were invited to make brief statements on the Infrastructure ADM. Councillor Derbyshire accepted that it had taken a long time to arrive at a decision. Two options were evaluated and he was confident that, with the support of the unions, the Modified In-house Model was the right choice. Councillor Hinchey stated that by making further progress in areas such as the reduction of sickness, multi-skilling of staff and through the introduction of new technologies he was confident that the Modified In-house option

would prove to be successful. The unions had indicated their willingness to change and there had been positive engagement with staff.

The Chief Executive advised Members of the Committee that there was a strong case for change within the service area. During the ADM process analysis had demonstrated the need for a range of improvements around processes and technology. Finding a balance between improving services and delivering savings was important.

The Committee received a presentation on the Infrastructure Services ADM Full Business.

The Chairperson invited the Committee to comment, seek clarification or raised questions on the information received. Those comments are summarised as follows:

- Members considered that there should be an immediate focus on savings during t 2016/17. Officers stated that £63k of savings could be realised immediately, in addition to those savings identified in the budget. Further savings would be realised when new technologies are in place. The Chief Executive stated that it was accepted savings in Year 1 would be slow; savings would be accelerated in later years.
- The Cabinet Member for the Environment stated that it had taken 3 years to arrive at a decision due to the complexity of the issues involved. Cardiff did not wish to repeat mistakes made by other authorities. Analysis has demonstrated that some key areas are not suited to a WOC.
- In terms of external representation on the Commercialisation and Accelerated Improvement Board, officers advised that individuals who were aware of the issues and were familiar with the service have been identified.
- Members asked officers to identify what support the services area would receive from the Commercialisation Unit. Officers stated that the services would receive key contracts and a supplier framework. Improvements to the supplier framework were being sought, particularly in terms of how contracts are being managed.
- Members questioned what performance measures were in place that would allow an indication of the outcomes achieved. Officers advised that there were targeting actions plans in place which included performance management measures. Baseline customer information would be re-measured during the process. Staff surveys, customer feedback, P.I.s and income generated would all be used to measure performance. The C&AI Board will receive notification of the performance measures proposed.
- Members noted the analysis of the benefits from both ADM models. Members asked whether the benefits extended beyond the 5-year period featured in the report. Officers stated that any benefits beyond the 5-year period were dependent on collaboration with other bodies. The savings achieved would not be sustained for an indefinite period.

- Members considered that the estimate of trading opportunities of £307k seemed to be underestimated. Members asked for clarification for the basis of the calculation of this figure. Officers stated that the figure presented was cautious and had been challenged by stakeholders. It was accepted it may be possible to achieve more in terms of trading opportunities.
- A Member considered that the Modified In-House model was a short-term/medium term solution at best. Witnesses were asked whether the Modified In-House model could evolve into a Wholly Owned Company at some point in the future. The Cabinet Member for the Environment stated that any future decisions would be dependent on budgetary considerations and the success of the Modified In-House model. The Cabinet Member did not think it was appropriate to speculate on the future, but neither was it appropriate to rule out the WOC.
- The Committee noted that in 2014 the ADM process had projected anticipated savings of £13.4 million. Members asked the witnesses to comment on the shortfall in savings to be achieved as a result of the decision to move to the Modified In-House model. The Chief Executive stated that projections were notoriously difficult to make. The Cabinet Member for Corporate Services and Performance stated that the Council has an obligation to provide services for the City. The authority was being tasked with does more with less resource. However, the decision taken was not done so purely on finances; the final decision also reflected the Cabinet's desire to invest in and improve public services. The projections were speculative but were based on best practice principles.
- In terms of trading, Members were advised that in the short-term trading opportunities were identified in the commercial waste and fleet management areas. Officers stated that neighbouring authorities did not operate a commercial waste service so there were further commercial opportunities to be explored.
- Members asked the witnesses whether they were confident that there were sufficient skills within the Economic Development Directorate to oversee the commercialisation of these services. The Chief Executive acknowledged those concerns. Members were advised that the Economic Development Directorate had the largest commercial capacity within the authority. There was significant momentum behind the asset management approach within the directorate.
- The witnesses were asked to provide details of what measures were being planned in order enable managers to carry out the programme. Members were advised that skills existed within the existing services and it was necessary to pool those skills and strengthen capacity where necessary. It was important that that management retain a level of operational autonomy. Members were reminded that commercialisation was not just about profit, it was also necessary to reduce costs.
- Members considered that a key concern was whether the service would be able to win back school contracts. Members stated that services currently provided to schools were not always value for money. The Cabinet Member for Environment recognised that this issue was a concern. Schools were currently

paying for services when the authority could be providing them. It was anticipated that in future schools would be offered a cluster of services and more effective, competitive, pricing. Officers stated that colleagues in Education would like to offer schools a package of services and they were keen to hear what new offerings could be made. The challenge for the Modified In-House model was to retain and regain customers in that market.

- Members indicated that feedback from staff within the service area suggested that they would like to do more to tackle absenteeism but they were prevented from doing so. Members asked whether they would be prevented from doing so again. The Chief Executive stated that it was his responsibility to remove those barriers.
- The Committee considered that Members would have been more reassured if the 4-year business plan for the service had been presented at the meeting. The Chief Executive advised that Members were being asked to consider the Full Business Case decision. Once the FBC has been agreed it would be possible to move forward with the development of the business plan.
- Officers were asked to clarify what would happen if economic necessity meant that the Modified In-house model came into conflict with political priorities. The Cabinet Member for the Environment stated that he was positive that the MIH was the best way forward. He was determined to get to a position where the authority was not only employing its own staff, but taking on apprentices. The C&AI Board will be in control but Cabinet would be responsible for determining the constitution of the Board.
- Officers were asked to elaborate on how they thought the £1 million insourcing details in the FBC could be achieved. Officers stated that the £1 million figure was based on insourcing over a 5-year period and was predicated on the ability of Facilities Management teams to deliver services internally rather than using external spend. Furthermore, discussions would with neighbouring authorities were ongoing and the final decision on the ADM model would help our neighbours see whether the model can work for them.
- Member raised concerns regarding the procurement of a Fleet Management IT system. Officers considered that this issue was a top priority. Officers had been tasked with finding the best system available and the proof that software against SAP to ensure that it was compliant.
- Members felt that robust accounting, with no hidden charges, such as cross-charging and recharging, was crucial. Officers stated that this was a challenge for colleagues in Finance. The service would adopt a business unit approach and would fit in with public sector accounting rules.

Trade Union Representations

Angie Shiels made a statement on behalf of all the Trade Unions. She thanked the Cabinet Member for the Environment for engaging with the Trade Unions. The Unions were 'delighted' that the Cabinet had agreed to retain an in-house service. The Unions considered that there was an urgent need to revisit outsourced contracts as many could be delivered in-house. Further, services were

currently working in silos and this not providing best value to the taxpayer. By creating a commercialised wing the Unions were hoping to keep services in house and protect jobs. The Unions welcomed the statements made by the Cabinet Member regarding apprenticeships and succession planning. Staff development and meaningful training for front line staff was also welcomed. Unions agreed that it was crucial that fleet management control was addressed. The delivery of new technology, including body cameras, was also highlighted as being of great importance.

Local Partnership Board Representations

Julie McEver addressed the Committee. Members received an overview of the role of the Local Partnership Board in providing external challenge and review throughout the ADM Delivery Model process. The draft FBC options were reviewed and challenged on due diligence, etc. Feedback was provided on a proposed way forward.

The Local Partnership Board supported the conclusion set out in the draft Cabinet report. The figures supporting the Modified In-house business case were robust and the case for the MIH option was clear. The LPB was also content that there was sufficient detail in the Cabinet report to allow Cabinet to make an informed decision.

The Chairperson offered the Cabinet Members an opportunity to comment on or respond to the statements made by the trade union representative and the Local Partnership views.

The Cabinet Member for the Environment acknowledged that the ADM decision-making process was lengthy, but it was crucial that the correct decision was ultimately made, as the frontline services within the scope of the project were key services to residents in the City. The Cabinet Member for the Environment thanked the Members of Scrutiny Committees for their input which has been used to formulate the solution. Thanks were also given to the Trade Unions for engaging in the process. The Cabinet Member was confident that the in-house solution was the right solution.

The Cabinet Member for Corporate Services and Performance stated that changes over the previous 12 months have given him the confidence to support the Modified In-House approach, for example, sickness rates improving, new contracts being secured. The Cabinet Member welcomed the robust discussions which are likely to take place during the next 12 months.

RESOLVED – That the Chairperson writes on behalf of the Committee to the Cabinet Members to convey the Committee’s comments and observations.

The meeting terminated at 7.00 pm

**CITY AND COUNTY OF CARDIFF
DINAS A SIR CAERDYDD**

ENVIRONMENTAL SCRUTINY COMMITTEE

12 JULY 2016

CARDIFF'S ENERGY PROSPECTUS – MEMBER UPDATE

Purpose of Report

1. This item will provide Members with the opportunity to:
 - Receive a progress update on the development of Cardiff's Energy Prospectus;
 - Receive an update on the energy related achievements of the Council during 2015/16;
 - Consider the energy priorities for Cardiff and the Council during 2016/17;
 - Consider the implications of recent government policy changes and the strategic impact that these could have on energy projects in Cardiff;
 - Consider the future approach taken by the Council to record its energy achievements and identify a future strategy.

Background

2. The Council's energy programme covers four key areas which are categorised as:
 - Staff awareness to reduce energy consumption;
 - Energy efficiency and retrofit;
 - Installation of decentralised energy generating plant;
 - Applying for external funding to support, develop and showcase innovations in energy technologies.

3. During 2014/15 a series of 'pipeline' energy projects from within Cardiff were brought together to create Cardiff's Energy Prospectus; this new document was presented to Full Council in June 2014. A considerable number of the projects listed within Cardiff's Energy Prospectus have now been converted into the Council's energy portfolio. Cardiff's Energy Prospectus is attached to this report as **Appendix 1**.

4. The Environmental Scrutiny Committee received an item titled 'Member Update: Council Energy Prospectus & Proposals for the Route to Market' at the meeting on the 14 July 2015. A copy of the cover report for this item along with the letters sent and received after the meeting are attached to this report as **Appendices 2, 3, 4 and 5**.

5. At the time of the July 2015 meeting it was estimated that by the end of 2015/16 the Council would have enhanced Cardiff's position in terms of energy sustainability by delivering on a number of projects, which included:
 - The installation of 6MW of electricity generation capacity (equivalent electricity for 3,000 homes) with solar schemes at Lamby Way depot roofs and landfill site; solar on schools; and hydroelectric project at Radyr Weir;
 - Energy efficiency retrofit in almost 1,000 homes;
 - The installation of a range of energy saving measures on the Council's estate;
 - The reduction of £100,000 in energy costs for schools across Cardiff. This was to be achieved through improved energy management, for example, using the 'Carbon Culture' system to reduce energy consumption during school holidays;
 - The Council has helped to facilitate the development of the Energy from Waste facility at Trident Park which converts residual waste into 30MW of renewable energy; the project also has the potential of supporting a city centre district heating scheme. Since the creation of the Energy from Waste facility at Trident

Park the Council has been a key partner in helping to drive forward the goal of achieving a city centre district heating scheme;

- The demonstration of innovation through winning a total of £2.2m in external funding for six energy related research and innovation projects. The aim of these is showcase Cardiff's approach to sustainability and fund innovative products and technologies that will bring added benefits to the Council's estate;
- Bringing in £8m of external funding for the projects listed above and securing enough revenue grant income to fund 2.5 full time equivalent salaries in the Council's Energy and Sustainability Team.

6. The energy projects which are currently being progressed and planned also relate to Council's wider Sustainable Development and "One Planet Cardiff" objectives. The projects include research and development initiatives where Cardiff is the first and only Authority in the UK to have run schemes under the UK Government's Small Business Research Initiative, managing innovation competitions, "heritage retrofit" solutions and "portable renewables" technology.
7. At the time of the July 2015 Environmental Scrutiny Committee the Council was looking forward to the development of future exemplar work. For example, the British Geological Survey looking at tapping into the city's geothermal sources of heat and seeking funding from Europe for "Smart City" bids to test integration of data sets to optimise the sustainable way in which a city runs its key infrastructures like transport, waste, water, energy and digital.
8. The approach taken by the Council in the creation of Cardiff's Energy Prospectus was appreciated by Welsh Government, to the extent that they commissioned Local Partnerships to interview and catalogue the rest of the energy pipeline for all Welsh Authorities. Local Partnerships is a jointly owned not for profit venture between the Local Government Association and HM Treasury, offering specialist support and capacity. This work identified enormous potential for Wales with 143 projects identified, the bulk of which were in concept and need support in getting to the point of

installation. It was estimated that if all of the projects reached the point of generation then they could provide 14% of the energy needs of the public sector estate in Wales.

9. During 2015/16 the Welsh Government was considering an investment vehicle which could offer £500m borrowing capacity, or potentially equity, into the energy projects. This initiative approach was launched in as “Green Growth Wales” and Cardiff has already secured a £2m Invest To Save fund from this to support additional retrofit work.

Issues

10. At the time of the July 2015 scrutiny the Council was at the point where it needed to agree the extent of future investment into energy projects. In July 2015 Members were informed that a generic paper on capital investment criteria for Invest to Save schemes was being prepared to look at issues including:

- overall business case requirements;
- approval process as part of the budgetary framework;
- interest rates;
- repayment mechanisms;
- acceptable returns on investment, and
- (crucially for the energy piece), whether there should be a maximum cap to capital exposure in certain categories of investment.

A report on these issues was presented to Cabinet in July 2015.

11. It was felt at the time that the generic paper on capital investment criteria for Invest to Save schemes would include a discussion on risk and reward to determine the appetite for further direct investment in the remaining pipeline. In broad terms the Council’s energy investment / support options were:

- To continue to invest directly as a Council from the capital programme and take the rewards back into the revenue account as the projects return on investment;
- To take a lower risk option of leasing assets (as in the various “rent-a-roof” solar schemes that are on offer) or leasing equipment, for example, heat exchangers or PV (in the same way one leases photocopiers), though generating lower return;
- To engage more actively with community energy company models to share the responsibilities and opportunities, but this would also mean sharing the profits;
- As the Council owned energy production estate grows, it could decide to step into the energy buying and selling business and set up an Energy Services Company (ESCO).

12. The view in July 2015 was that in reality, a multi-dimensional approach encompassing all of the above options would probably be the most appropriate option as individual schemes often present different risks, rewards, and complexities.

13. The July 2015 scrutiny report also set out a number of background issues and opportunities which were evolving as the Council’s energy knowledge grew – these it was felt would help to guide future options. For example, at the time electricity purchasing arrangements were available, known as direct power purchase agreements or “sleeving”. These could provide the Council with the opportunity to buy back the electricity that it produces at rates which are better value than traditional purchasing from the grid.

14. In the last year a major issue for the Council was around maximising the renewable energy potential of the Energy from Waste Plant at Trident Park. Last year the Council secured funding from the Department of Energy and Climate Change (DECC) to explore the potential of delivering a district heat network to supply properties in the

vicinity of the plant with the heat that is the by-product of its combustion process. The grant allowed the Council to work with partners to identify the possible investment opportunities and governance issues that would arise in the delivery of such a scheme. The funding extended into 2015/16 and in the last twelve months has considered a number of issues including:

- The Council's potential options as a funder into a new company that would deliver and run the network;
- The Council's options as a customer of the heat, along with other major public sector organisations in Cardiff;
- The ability of the Council to address fuel poverty issues via links between the heat network and housing retrofit funding.

15. In July 2015 the heat network was a part of the Council's current list of either incomplete or potential future renewable energy projects, this list also included:

- District heating networks with the Energy from Waste Plant at Trident Park and other potential sources of heat for the city centre;
- Additional hydro schemes on the city's rivers;
- Large scale roll-out of solar schemes on the Council's estate and, especially schools (a potential £12m investment);
- Extending the conversion of Street lighting to LED technology;
- Possibilities to support the Tidal Lagoon proposal;
- Possibilities to maximise the sustainability credentials of the new communities arising from the LDP by working proactively with developers and other infrastructure providers to build renewables more positively into emerging designs;

- Further engagement with innovation funding sources including the European Union’s “Horizon 2020” Programme and other DECC and Innovate UK opportunities to support the roll-out of emerging technologies.
16. At the time, given the pipeline of energy infrastructure projects and the possibilities of aligning energy infrastructure with investment sites to create a unique selling point around fuel security, it was felt that another route to securing the financing and delivery capacity could be through the City Deal.
 17. Since the time of the last Scrutiny and Cabinet report the UK Government undertook and implemented a major and unexpected review of its policy and financial support for renewable energy. This made significant reductions to the various financial mechanisms that had previously supported renewable energy schemes. Feed in Tariffs (FITs) reduced considerably and Renewables Obligations Certificates (ROCs) all but disappeared. This impacted on some of the live projects being delivered through the Energy Prospectus. Some were accelerated and expanded to maximise their potential before the policy change took hold, whilst others were delayed due to the uncertainties caused to their business models. Officers have since been working to reprioritise projects and develop new delivery models that address the “post subsidy” position. Details of these impacts and actions will be reported in the meeting.
 18. This report and its appendices highlight the diverse range of activity and potential that the energy sector holds for the Council. The Council’s emerging experience in the field has also highlighted the complexity that underlies the investment decisions and delivery mechanisms that need to be navigated to achieve this potential. During 2015/16 it was proposed, therefore, that future investment decisions were made against a hierarchical framework of delivery routes. For example, where self- financed projects are prioritised they will need to meet the refreshed Invest to Save framework and deliver the best income and return for the Council. If these projects do not meet the Council investment criteria then the range of partner and other delivery mechanisms will need to be explored.
 19. In 2015/16 Local Partnerships were bidding to Welsh Government to provide a support package to each local authority in Wales which it was hoped would provide free at

point of use assistance to effect accelerated delivery of these types of projects. These could include:

- feasibility studies and business cases;
- assessment of due diligence;
- identification of further opportunities for efficiency or generation;
- assessment of investment models – for example community ownership and the identification or establishment of procurement frameworks to speed up and de-risk the process.

This Support from Local Partnerships is now in place. It was, therefore, felt that the Council needed to make best use of available support resources including:

- The Welsh Government support from Local Partnerships;
- Existing support mechanisms such as DECC's heat network grant;
- The Council's in-house financial guidelines.

Previous Cabinet Reports

20. The Cabinet received an item titled 'Update on the Council's Energy projects and proposals for the route to market for the remainder of the energy pipeline' at the Committee's 16 July 2015 meeting. A copy of the Cabinet paper is attached to this report as **Appendix 6**. Following the report the decisions taken by the Cabinet resolved:

- To note the progress achieved to date;
- That a review of the Council's strategic energy projects, guided by the delivery mechanisms set out in this report be agreed;

- That Cardiff engage with Welsh Government's Green Growth Fund and the associated Local Partnerships support package to inform and support the emerging strategy and delivery programme;
- That an options appraisal be undertaken to identify the most appropriate vehicle to deliver and operate a district heat network and deliver the Council's renewable energy goals, and a report on the findings of this work to be brought back to Cabinet.

Cardiff's Energy Prospectus - Refresh

21. Following the success of introducing 'Cardiff's Energy Prospectus' the Council is currently looking to review and update the approach used to record and direct the Council's energy policy, bringing together energy efficiency and renewable energy work under a clearly structured and target driven strategy . At this meeting officers will brief the Committee on any future developments in this area.

Way Forward

22. Officers from the City Operations Directorate have been invited to attend to give a presentation and to answer Members' questions.

Legal Implications

23. The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct legal implications. However, legal implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any legal implications arising from those

recommendations. All decisions taken by or on behalf of the Council must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. Scrutiny Procedure Rules; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances.

Financial Implications

24. The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct financial implications at this stage in relation to any of the work programme. However, financial implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any financial implications arising from those recommendations.

RECOMMENDATIONS

The Committee is recommended to:

- Consider the information in the report and appendices, and information provided at the meeting;
- Decide whether they would like to make any comments to the Cabinet;
- Decide the way forward for any future scrutiny of the issues discussed.

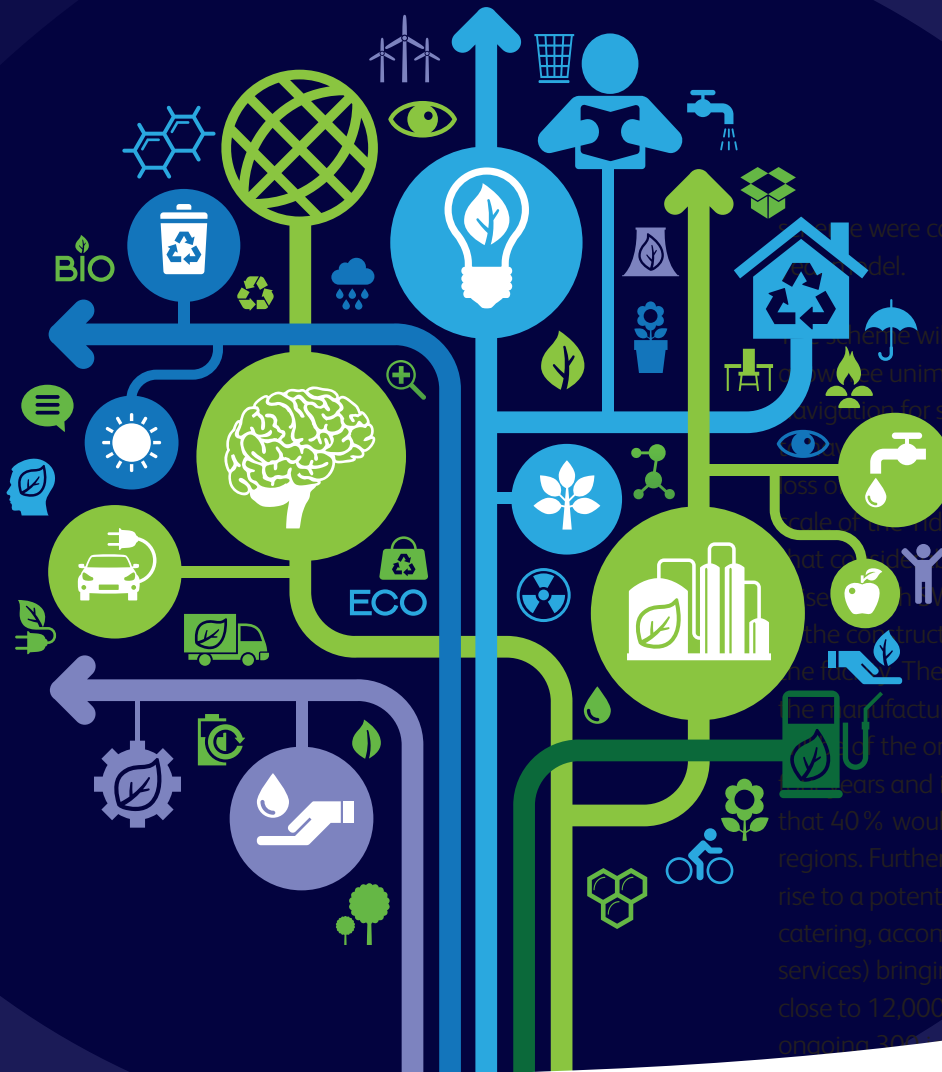
DAVID MARR

Interim Monitoring Officer

12 July 2016

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ENERGY PROSPECTUS 2014



ENERGY PROSPECTUS TABLE

	Project Name	"Maximum Power (MW)"	"Annual Energy Generation / Saving (MWh)"	"Annual Energy Generation / Saving (MWh)"	"Construction Jobs (Approx FTE)"	"Operational Jobs (Approx FTE)"	Capex (£m)	"ROI (where relevant) (%)"	"Annual secure energy value (£m)"	"Annual green energy value (£m)"	Annual energy cost saved value	Project Stage	Time to deliver	"Complexity (H/M/L)"	"Project Maturity Delivery by 2020 (R/A/G)"	"Council Obligation (Y/N)"	Potential role to bring project to market
1	"Trident Park Energy from Waste Electricity Generation"	30	220,000	220,000	360	36	200	N/A	11.000	9.244		Construction	Apr-15	High	G	Y	Procuring authority
2	Trident Park Energy from Waste District Heating Network"	20	70,000 - 150,000	70,000 - 150,000	?	?	16		1.120			Feasibility	2016	High	A	N	"Facilitation and ESCo Partner
3	Anaerobic Digestion in Cardiff"	1.5	12,200	12,200	? Pat	? Pat		N/A	0.566	1.127		Procurement	2016	High	R	Y	Procuring authority
4	Anaerobic Digestion in Cardiff"	1.5	12,000	12,000				N/A	0.096			Procurement	2016	Low	R	N	Procuring authority
5	Landfill Gas Electricity"	5	26,280	26,280	? Pat	? Pat						Operational		Low	G	Y	Owner
6	Landfill Gas Heat"	4	21,024	21,024								Pre-feasibility		Low	A	N	"Owner
7	Lamby Way Landfill Solar Farm	5	4,500	4,500	?	?	3		0.209	0.297		Feasibility	Mar-15	Medium	G	N	Heat user"
8	Lamby Way Buildings Solar	0.25	215	215	?	?	0.405		0.010	0.014		Feasibility	Mar-15	Low	G	N	Funding and developer
9	Radyr Weir Hydro	0.4	1,800	1,800	?	?	2.5		0.090	0.270		Feasibility	Mar-15	Medium	G	N	Funding and developer
10	Llandaff Hydro	0.2	900	900	?	?	?		0.045	0.135		Pre-feasibility	2020	Medium	R	N	Funding and developer
11	Blackweir Hydro	0.1	450	450	?	?	?		0.023	0.068		Pre-feasibility	2020	Medium	R	N	Funding and developer
12	Other Hydropower	6.27	19,440	19,440					0.902	2.916		Pre-feasibility	2020	Medium	R	N	Funding and developer
13	"Energy Efficiency Council Buildings (RE:FIT)"	N/A	12,000	12,000	?	?	3.3		N/A	N/A	0.5	Pre-procurement	2015	Medium	G	Y	Facilitator
14	"Energy Efficiency Retrofit 2050"	N/A	100,000	100,000			58					Pre-feasibility	2022				Funding and developer
15	"Tidal Range Stepping Stones Tidal Lagoon"	600	1,200,000	1,200,000	4000	80	1,700					Pre-feasibility	2025	High	R	N	Facilitator
16	"Tidal Range Severn Tidal Fence"	400	880,000	880,000	10,000	300	2,300					Pre-feasibility	2025	High	R	N	Facilitator and SPV partner
17	Electricity ESCO	N/A	N/A	N/A					N/A	N/A	XXX	Pre-feasibility					Facilitator and SPV partner

PROJECT 1

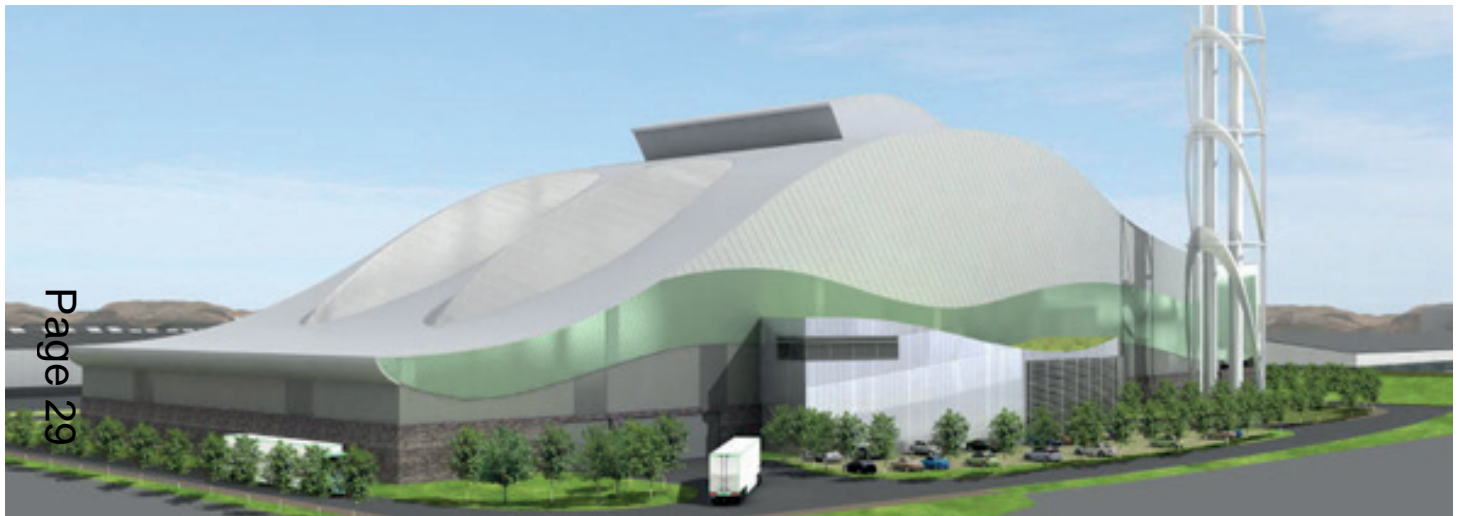
TRIDENT PARK ENERGY FROM WASTE FACILITY

CATEGORY

- › ELECTRICITY GENERATION
- › 30 MW
- › 220,000 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › FULFILLED
- › POST-PROCUREMENT
- › CONSTRUCTION STAGE



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DESCRIPTION

Prosiect Gwyrdd, the Cardiff Council lead residual waste treatment partnership, has provided the anchor contract (waste provider) to facilitate funding of 50% of the 350,000 tonnes per annum Energy from Waste (EfW) facility at Trident Park in Cardiff Bay.

The partnership (Cardiff, Newport, Caerphilly, Monmouthshire, Vale of

Glamorgan) has a contractual obligation to supply residual waste to the facility. The benchmarked gate fee shows this is very good value for money. On average 172,000 tonnes per annum of residual waste will be supplied by the partnership each year for the 25 year contract duration.

With a capital value of £200m, 360 jobs have been created during the facility's construction and 36

operational jobs are due to be created when the facility becomes operational in 2015.

The EfW facility will produce electricity and has the potential to produce heat via combined heat and power (CHP). Utilisation of the heat is described in Project 2.

PROJECT 2

TRIDENT PARK ENERGY FROM WASTE FACILITY

CATEGORY

- › CARDIFF HEAT NETWORK
- › 20 MW
- › 150,000 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › ACTIVE
- › PRE-PROCUREMENT
- › FEASIBILITY STAGE



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DESCRIPTION

Cardiff Council is working with the owner of the EfW facility (Viridor) and E.ON to deliver a 12km district heating network which, during phase 1 of the project, will enable the utilisation of 70,000 MWh/annum heat (less than half of the total heat) produced by the Trident Park Energy from Waste Facility (see also Project 1). The Cardiff Heat Network project is expected to involve:

- Creation of a single purpose vehicle (SPV) for a Pipe Holding Company made up of a public-private partnership as the commercial model.
- Utilisation of the lower costs of finance available to local authorities and longer term infrastructure mind-set of a pension fund.
- Retrofitting district heating to existing homes to broaden the customer base, whilst also reducing the installation costs through utilisation of existing

central government energy efficiency and renewable energy support schemes.

The estimated capital investment for the base case District Heating Network in Cardiff is £16m. This is driven by the length of the network and the proposed route from Trident Park to the City Centre to connect the identified 'anchor' customers.

PROJECT 3

ANAEROBIC DIGESTION IN CARDIFF

CATEGORY

- › ELECTRICITY GENERATION
- › 1.5 MW
- › 12,200 MWh/annum

INVESTMENT OPPORTUNITY

- › IN PROCUREMENT (NB: AT THIS STAGE THE CONTRACT COULD BE AWARDED TO EITHER SHANKS OR KELDA).E



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DESCRIPTION

Cardiff Council and the Vale of Glamorgan Council are working together on their Organic Waste Treatment Project to procure treatment capacity for approximately 35,000 tonnes per annum of source-separated food waste collected from households and businesses.

In July 2013 Kelda and Shanks were

shortlisted to develop proposals for the most sustainable and value for money solutions for Cardiff Council to assess. Both bidders plan to use the Anaerobic Digestion (AD) technology to process the organic waste produced by Cardiff and the Vale with Kelda Organic Energy potentially basing their facility in Tremorfa, Cardiff and Shanks Waste Management proposing their plant in Pontypool. AD is a biological process that produces methane gas that is used

to generate electricity. Waste heat from the process can be put to beneficial use. Planning permission has been granted for Kelda to build an anaerobic digestion (AD) facility at the Dŵr Cymru Welsh Water Waste Water Treatment Works, Tremorfa, Cardiff.

The proposed AD facility would produce electricity and heat via combined heat and power (CHP). Potential utilisation of the heat is described in Project 4.

PROJECT 4

ANAEROBIC DIGESTION IN CARDIFF

CATEGORY

- › HEAT UTILISATION
- › 1.5 MW
- › 12,200 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › IN PROCUREMENT



DESCRIPTION

The anaerobic digestion and combined heat and power proposed in Cardiff (see Project 3) would be expected to produce approximately equivalent proportions of heat and power¹. Potential beneficial uses for this heat will be explored during the procurement process.

PROJECT 5

LANDFILL GAS

CATEGORY

- › ELECTRICITY GENERATION
- › 5 MW
- › 26,000 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › FULFILLED
- › POST-PROCUREMENT
- › OPERATIONAL STAGE



DESCRIPTION

Cardiff's Lamby Way and Ferry Road landfill sites have landfill gas collection systems in place and utilise the collected landfill gas to generate electricity using landfill gas engines. These engines have a maximum installed electrical generation capacity of 4 MW and 1 MW respectively, with the generated electricity being fed into the national grid.

Landfill gas engines have the potential to produce heat via combined heat and power (CHP), a proposal to beneficially use this heat at Lamby Way is described in Project 6.

PROJECT 6

LANDFILL GAS

CATEGORY

- › HEAT UTILISATION
- › 4 MW
- › 20,000 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › ACTIVE
- › PRE-PROCUREMENT
- › PRE-FEASIBILITY STAGE



DESCRIPTION

Whilst currently only producing electricity, the 4 MW landfill gas engines at Lamby Way could potentially produce approximately equivalent proportions of heat and power¹.

There is an opportunity for this heat to be beneficially used to provide heating and cooling for the council buildings at Lamby Way.

PROJECT 7

LAMBY WAY LANDFILL - SOLAR FARM

CATEGORY

- › ELECTRICITY GENERATION
- › 5 MW
- › 4,500 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › FULFILLED
- › PRE-PROCUREMENT
- › FEASIBILITY STAGE



DESCRIPTION

There is an opportunity to install a solar farm on Cardiff Council's landfill site at Lamby Way.

The landfill site is planned to cease landfill operations in the Autumn of 2014, capping and restoration activities are due to be completed in 2015.

The circa 69 hectare site could in theory provide sufficient space for up to 15

MW of photovoltaic generating capacity although 5 MW may be more deliverable.

As a landfill site, waste settlement and protection of the engineered cap will be major factors to be taken into account on the overall design, installation and maintenance.

The scale of the farm would be dependent on the following:

- Site ground conditions
- Grid connection capacity
- Capital costs
- Future planned use of the land
- Planning constraints
- Renewable electricity subsidies

Cardiff Council is planning to use public sector capital to finance the scheme and to start procurement for the solar farm in 2014.

PROJECT 8

LAMBY WAY - BUILDINGS SOLAR PV

CATEGORY

- › ELECTRICITY GENERATION
- › 0.25 MW
- › 215 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › FULFILLED
- › PRE-PROCUREMENT
- › FEASIBILITY STAGE



DESCRIPTION

There is an opportunity to install a solar photovoltaic system on the large roofs of the Lamby Way Recycling Centre. It is estimated that there is suitable space for approximately 0.25 MW of photovoltaic generating capacity. Cardiff Council is planning to use public sector capital to finance the scheme and to start procurement for the solar pv system in 2014.

PROJECT 9

RADYR WEIR HYDRO

CATEGORY

- › ELECTRICITY GENERATION
- › 0.4 MW
- › 1,800 MWh/annum

INVESTMENT OPPORTUNITY

- › FULFILLED
- › PRE-PROCUREMENT
- › FEASIBILITY STAGE



DESCRIPTION

The River Taff, along with many other river areas in Cardiff, provides opportunities to create constant renewable, clean sources of energy. The Council has immediate opportunity to exploit those areas that are within the council's direct control such as the structure and adjacent land at Radyr Weir.

The scheme proposed would be the largest of its kind in the UK (2x turbines with a 391kW total capacity) and would produce enough electricity to power 550 homes or the equivalent of five of the Authority's leisure centres (1,820,700kWh / annum). The proposed hydropower technology (Archimedean screw turbine) is considered "fish friendly" compared to other hydropower alternatives.

The scheme currently proposed would be funded on an Invest to Save basis; with a payback period estimated at of 7 years and assumes a 20 year guaranteed Feed in Tariff (FiT). This will however be the subject of a final business case assessment that will also consider all options for use of the income and length of the payback period. Cardiff Council is planning to start procurement of Radyr Weir Hydro scheme in 2014.

PROJECT 10

LLANDAFF HYDRO

CATEGORY

- › ELECTRICITY GENERATION
- › 0.2 MW
- › 900 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › PRE-PROCUREMENT
- › PRE-FEASIBILITY STAGE

DESCRIPTION

PROJECT 10

BLACKWEIR HYDRO

CATEGORY

- › ELECTRICITY GENERATION
- › 0.1 MW
- › 450 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › PRE-PROCUREMENT
- › PRE-FEASIBILITY STAGE

DESCRIPTION

PROJECT 12

OTHER HYDROPOWER

CATEGORY

- › ELECTRICITY GENERATION
- › 6.27 MW
- › 19,440 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › ACTIVE
- › PRE-PROCUREMENT
- › PRE-FEASIBILITY STAGE



DESCRIPTION

In 2009, the Environment Agency published: “Opportunity and Environmental Mapping Sensitivity Mapping for Hydropower in England and Wales”. This project assessed and mapped opportunities for hydropower and estimated the flow available, the maximum power potential, and the basic environmental sensitivity associated with exploiting them. It is

the first phase of a wider programme of work that aims to make information available to developers and stakeholders, and to develop a more strategic approach to the sustainable deployment of hydropower.

A total of twenty-six sites, where there is sufficient height in river level to provide a hydropower opportunity and a power potential greater than 10 kW, are identified within the Cardiff

administrative boundary. These sites are mostly weirs but could be other man-made structures, or natural features such as waterfalls.

PROJECT 13

ENERGY EFFICIENCY COUNCIL BUILDINGS (RE:FIT)

CATEGORY

- › ENERGY SAVING
- › 12,000 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › FULFILLED
- › PRE-PROCUREMENT STAGE



DESCRIPTION

RE:FIT is a ready-to-use, cost neutral procurement initiative that allows the public sector to retrofit buildings with energy savings measures, reduce carbon emissions and achieve substantial guaranteed annual cost savings.

Energy Services Companies (ESCOs) will install energy conservation measures in identified buildings and guarantee

annual energy savings over an agreed payback period. This Energy Performance Contracting (EPC) model transfers the risk of performance to the ESCOs as they must guarantee the energy savings to be made over the agreed payback period. Cardiff Council intends to procure its first phase RE:FIT project encompassing 18 buildings during 2014. The scheme would be funded by the Council on an Invest to Save basis.

PROJECT 14

ENERGY EFFICIENCY RETROFIT 2050

CATEGORY

- › ENERGY SAVING
- › 100,000 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › ACTIVE
- › PRE-PROCUREMENT STAGE



DESCRIPTION

There are currently approximately 140,000 homes in Cardiff, many of which are energy inefficient, hard to treat and may have people living in fuel poverty. Even with the LDP's level of growth by 2050 the vast majority of the cities homes will have been built in the 20th, not the 21st Century. Retrofitting of these homes is essential to create an energy resilient city.

The Retrofit 2050 project estimates that there may be 98,000 cost effective retrofit measure opportunities for existing housing stock within Cardiff. This includes measures such as improved glazing; loft, cavity wall, solid wall and DIY floor insulation; improved air tightness; and insulation of pipe work and un-insulated hot water tanks. The project suggests that over £57.5m of investment would be required to implement these cost effective measures.

PROJECT 15

TIDAL RANGE - STEPPING STONES TIDAL LAGOON

CATEGORY

- › ELECTRICITY GENERATION
- › 600 MW
- › 1,200,000 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › ACTIVE
- › PRE-FEASIBILITY STAGE



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DESCRIPTION

The Severn Tidal Power Feasibility Study highlighted many issues and uncertainties. This alternative proposal has been developed and informed by the STPFS outputs. It has been developed by Parsons Brinckerhoff with assistance from Black & Veatch.

The proposal is based on a tidal lagoon located west of Barry. It would not

inhibit access to commercial ports in the Severn. It would be situated on a rock formation in a less protected environmental area (but still impacts on the East Aberthaw SSSI). It is significantly reduced in scale (600MW) but would still be the largest tidal power plant in the world. It is close to a grid connection at Aberthaw Power Station.

The construction cost is estimated to be £1.7bn, returning cost of energy at

£193/MWh over a 30 year financing period. Over the 4 year construction period 4,000 jobs would be created (of which 2,000 would be local construction jobs) with a further 1,800 of associated indirect jobs in the local community. 80 permanent jobs would be created to operate the new power station. A key objective of the proposal is to be financeable in the private sector but developed in partnership with the public sector.

PROJECT 16

TIDAL RANGE - SEVERN TIDAL FENCE

CATEGORY

- › ELECTRICITY GENERATION
- › 400 MW
- › 880,000 MWH/ANNUM

INVESTMENT OPPORTUNITY

- › ACTIVE
- › PRE-FEASIBILITY STAGE



DESCRIPTION

As part of the Severn Embryonic Technology Scheme (SETS) proposal, the Severn Tidal Fence Consortium (STFC) has studied the technical feasibility of an innovative approach to extracting energy from the tides. The STFC have proposed the use of a 'tidal fence system' as a method of extracting tidal power from the Severn Estuary whilst minimizing impact to the natural environment and

shipping and importantly not impeding future commercial shipping developments.

The key findings from this initial analysis of the 'tidal fence system' are a 19km scheme located between Aberthaw and Minehead, utilising between 680 and 780 turbine units in a twin fence arrangement, delivered at a cost of £2.3bn returning cost of energy at £226/MWh. The economics of the

**MEMBER UPDATE: COUNCIL ENERGY PROJECTS & PROPOSALS FOR
THE ROUTE TO MARKET**

Reason for the Report

1. To provide Members with a progress update on the Council's energy programme and to consider future energy proposals for the city.

Background

2. The Council's energy programme covers four key areas which are categorised as:
 - Staff awareness to reduce energy consumption;
 - Energy efficiency and retrofit;
 - Installation of decentralised energy generating plant;
 - Applying for and showcasing innovations in energy technologies.
3. The original pipeline of Cardiff energy projects were brought together into one document to an 'Energy Prospectus'; this new document was presented to Full Council in June 2014. A considerable number of the projects listed within the Council's Energy Prospectus have now been converted into the Council's energy portfolio.
4. By the end of 2015/16 the Council will have enhanced Cardiff's position in terms of energy sustainability by delivering on a number of projects including:
 - The installation of 6MW of electricity generation capacity (equivalent electricity for 3,000 homes) with solar schemes at Lamby Way depot roofs and landfill site; solar on schools; and hydro electric project at Radyr Weir;
 - Energy efficiency retrofit in almost 1,000 homes;
 - The installation of a range of energy saving measures on the Council's estate;

- The reduction of £100,000 in energy costs for schools across Cardiff. This has been achieved through improved energy management, for example, using the ‘Carbon Culture’ system to reduce energy consumption during school holidays;
 - The Council has helped to facilitate the development of the Energy from Waste facility at Trident Park which converts residual waste into 30MW of renewable energy; the project also has the potential of supporting a city centre district heating scheme. Since the creation of the Energy from Waste facility at Trident Park the Council has been a key partner in helping to drive forward the goal of achieving a city centre district heating scheme;
 - The demonstration of innovation through winning a total of £2.2m in external funding for six energy related research and innovation projects. These will showcase Cardiff’s approach to sustainability and fund innovative products and technologies that will bring added benefits to the Council’s estate;
 - Bringing in £8m of external funding for the projects listed above and securing enough revenue grant income to fund 2.5 full time equivalent salaries in the Council’s Energy and Sustainability team.
5. The sixteen live projects which the Council has also relate to Council’s wider Sustainable Development and “One Planet Cardiff” objectives. These are detailed in **Appendix 1** of this report. The projects include research and development initiatives where Cardiff is the first and only Authority in the UK to have run schemes under the UK Government’s Small Business Research Initiative, managing innovation competitions “Heritage Retrofit” solutions and “portable renewables” technology.
6. Looking ahead the Council is pursuing further exemplar work, for instance with the British Geological Survey looking at tapping into the City’s geothermal sources of heat, and seeking funding from Europe for “Smart City” bids, where we would like to test integration of data sets to optimise the sustainable way in which a city runs its key infrastructures like transport, waste, water, energy and digital. For information, the Council is considering plans to host a conference to promote and disseminate the findings of its innovation activities, showcasing the Council’s outputs and those of our many partners across the schemes.

7. The approach which the Council took with the production of the Energy Prospectus was appreciated by Welsh Government, to the extent that they have commissioned Local Partnerships to interview and catalogue the rest of the energy pipeline for all of the Welsh Authorities. Local Partnerships is a jointly owned not for profit venture between the Local Government Association and HM Treasury, offering specialist support and capacity. This work has shown enormous potential for Wales with 143 projects identified, the bulk of which are in concept and need support in getting to the point of installation. If all the projects reached the point of generation then they could provide 14% of the energy needs of the public sector estate.
8. Welsh Government is also considering an investment vehicle which could offer £500m borrowing capacity, or potentially equity, into the energy projects. This initiative approach was launched in concept last year as “Green Growth Wales” and would look to combine direct borrowing from Welsh government alongside Green Investment bank loans

Issues

9. Going forward the Council needs to agree the extent to which it invests further capital into energy projects. A generic paper on capital investment criteria for ‘Invest to Save’ schemes is currently being prepared which will look at issues such as overall business case requirements; approval process as part of the budgetary framework; interest rates; repayment mechanisms; acceptable returns on investment and crucially for the energy piece, whether there should be a maximum cap to capital exposure in certain categories of investment.
10. It is the outcome of this paper and the considered discussion on risk and reward, which will determine the appetite for further direct investment in the remaining pipeline of projects.
11. In broad terms the Council’s energy investment / support options are:
 - To continue to invest ourselves from the capital programme and take the rewards back into the revenue account as the projects return on investment;
 - To take a lower risk option of leasing assets (as in the various “rent-a-roof” solar schemes that are on offer) or leasing equipment, for example, heat exchangers

or PV (in the same way one leases photocopiers), though generating lower return;

- To engage more actively with community energy company models to share the responsibilities and opportunities, but this would also mean sharing the profits;
- As the Council owned energy production estate grows, we could also decide to step into the energy buying and selling business and set up an Energy Services Company (ESCO).

12. In reality, a multi-dimensional approach encompassing all of the above options may also be appropriate as individual schemes often present different risks, rewards, and complexities.
13. There are a range of background issues and opportunities which are also becoming clearer as the Council's energy knowledge grows; these will help to guide our future options. For example, there are electricity purchasing arrangements available, known as direct power purchase agreements or "sleeving". These allow the Council as the body which owns the generating capacity to buy back that electricity at rates which are better value than traditional purchasing from the grid. So for instance where we have projects remote from the Council buildings, like Radyr Weir, which sells electricity to the grid at 5p per kwh, and then at County Hall we are buying it back at 11p, we could have an arrangement that allows us to have a power agreement with a licensed supplier to buy back the power we produce at say 8p. The Council is currently examining these opportunities which may have positive additional benefits for our "invest to save" business cases.
14. There also needs to be clear synergy between energy investment decisions and the Council's asset retention plans and other devolved financial arrangements. In particular, complexities around energy investment on the schools estate need to be understood to ensure mutual benefit to both delegated schools budgets and the Council's bottom line return on its capital investments.
15. Another major issue for the Council relates to maximising the renewable energy potential of the Energy from Waste Plant at Trident Park. The Council has secured funding from the Department of Energy and Climate Change (DECC) to explore the potential of delivering a district heat network to supply businesses and properties in

the vicinity of the plant with the heat that is the by-product of its combustion process. The grant has allowed the Council to work with partners to identify the possible investment opportunities and governance issues that would arise in the delivery of such a scheme. The funding will extend into 2015/16 and so far has considered a number of issues including:

- The Council's potential options as a funder into a new company that would deliver and run the network;
- The Council's options as a customer of the heat, along with other major public sector organisations in Cardiff;
- The ability of the Council to address fuel poverty issues via links between the heat network and housing retrofit funding.

16. Following from this the Council has commissioned legal specialists to report in detail on options for the Council to engage with and promote a district heating scheme. These options would be transferable to other local authorities and other revenue generating infrastructure schemes thus supporting the wider Green Growth Wales agenda. DECC also see this as a key piece of work which can be shared via their Heat Network Delivery Unit network. The legal report will provide funding and engagement options and report on associated legal, procurement and contractual implications. The options will include a risk profile and recommendations for further actions. The findings of this report will be the subject of a more detailed future report to Cabinet that will allow the Council to agree a strategy to develop a resourced delivery plan including engagement with the private sector.

17. This heat network work is a part of the Council's current list of either incomplete or potential future renewable energy projects, which comprises:

- District heating networks with the Energy from Waste Plant at Trident Park and other potential sources of heat for the City Centre;
- Additional hydro schemes on the city's rivers;
- Large scale roll-out of solar schemes on the council's estate and, especially schools (a potential £12m investment);
- Extending the conversion of Street lighting to LED technology;
- Possibilities to support the Tidal lagoon proposal;

- Possibilities to maximise the sustainability credentials of the new communities arising from the LDP by working proactively with developers and other infrastructure providers to build renewables more positively into emerging designs;
 - Further engagement with innovation funding sources including the European Union’s “Horizon 2020” programme and other DECC and Innovate UK opportunities to support the roll-out of emerging technologies.
18. Given this pipeline of energy infrastructure projects and the possibilities of aligning energy infrastructure with investment sites to create a unique selling point around fuel security, then another route to securing the financing and delivery capacity could be through the City Deal. Accordingly, energy is included as a theme in City Deal and there is considerable regional support for this dimension.
19. This report highlights the diverse range of activity and potential that the energy sector holds for the Council. The Council’s emerging experience in the field has also highlighted the complexity that underlies the investment decisions and delivery mechanisms that need to be navigated to achieve this potential. It is proposed, therefore, that future investment decisions are made against a hierarchical framework of delivery routes; these were briefly commented on in bullet point 11 of this report. Where self- financed projects are prioritised they will need to meet the refreshed ‘Invest to Save’ framework and deliver the best income and return for the Council. If these projects do not meet the Council investment criteria then the range of partner and other delivery mechanisms will need to be explored.
20. Local Partnerships is currently bidding to Welsh Government to provide a support package to each local authority in Wales which will provide free at point of use assistance to effect accelerated delivery of these types of projects, for instance feasibility studies and business cases; assessment of due diligence; identification of further opportunities for efficiency or generation; assessment of investment models – for example community ownership and the identification or establishment of procurement frameworks to speed up and de-risk the process.
21. It is, therefore, felt that the Council needs to make best use of available support resources including:

- The Welsh Government support from Local Partnerships;
- Existing support mechanisms such as DECC's heat network grant;
- The Council's in-house financial guidelines.

22. These will provide vital support in helping the Council to properly understand the pros and cons of each potential energy opportunity.

Previous Scrutiny & Future Cabinet Reports

23. The Environmental Scrutiny Committee received an item titled 'Cardiff's Energy Prospectus' at its meeting on the 9th December 2014. This provided Members with the opportunity to scrutinise the development of Cardiff's Energy Prospectus and discuss the work which needed to be undertaken to complete the document. Following the meeting the Chair of the Committee wrote a letter to the Cabinet Member for Transport, Planning & Sustainability. A copy of this letter is attached as **Appendix 2**. In response the Cabinet Member for Transport, Planning & Sustainability responded in two letters to the Chair of the Environmental Scrutiny Committee. These are attached as **Appendices 3 & 4**.

24. The Cabinet are due to receive an item titled 'Update on the Council's Energy projects and proposals for the route to market for the remainder of the energy pipeline' at the meeting on the 16th July 2015. This report will:

- Provide an update to Cabinet on the implementation of the energy programme over the last 12 months, and;
- Seek Cabinet approval for the way forward in delivering the Council's next set of energy projects.

Way Forward

25. Councillor Ramesh Patel (Cabinet Member for Transport, Planning & Sustainability) has been invited to attend for this item. He will be supported by officers from the City Operations Directorate.

Legal Implications

26. The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct legal implications. However, legal implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any legal implications arising from those recommendations. All decisions taken by or on behalf of the Council must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. Scrutiny Procedure Rules; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances.

Financial Implications

27. The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct financial implications at this stage in relation to any of the work programme. However, financial implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any financial implications arising from those recommendations.

RECOMMENDATIONS

The Committee is recommended to:

- i. Note the contents of the attached reports;
- ii. Consider whether it wishes to make any comments to the Cabinet to take into consideration when it receives the report.

MARIE ROSENTHAL
Director Governance & Legal Services
8th July 2015

Ref: RDB/PM/RP/09.12.2014

23rd January 2015

Councillor Ramesh Patel,
Cabinet Member for Transport, Planning & Sustainability,
County Hall,
Atlantic Wharf,
Cardiff,
CF10 4UW.



Dear Councillor Patel,

Environmental Scrutiny Committee – 9th December 2014

On behalf of the Environmental Scrutiny Committee I would like to thank you and the officers for attending the Committee meeting on Tuesday 9th December 2014. The meeting considered items titled 'Planning Service Redesign – Member Update' and 'Cardiff's Energy Prospectus'. Both of these fall within your portfolio of responsibility. The comments and observations made by Members following these items are set out in this letter.

Planning Service Redesign – Member Update

- A letter to the Cabinet Member for Strategic Planning & Transport in February 2014 expressed concern over the challenging income target set for the Planning Service during the budget setting process. At the time Members were sceptical as to whether the service could achieve the target, particularly as significant budget cuts were being imposed on the service at the same time. During the way forward Members noted the progress that the Planning Service has made in such a short period of time particularly as:
 - The Planning Service has been through a major service restructure;
 - They have performed well against the additional income target of £512,000 during 2014/15;
 - They have performed well against the main Planning Service indicators.

- The Committee would like to receive a detailed financial summary of the Planning Service for 2014/15. This should include:
 - A budget summary for the Planning Service as a whole with a breakdown of the budget allocated to each of the individual teams;
 - An income summary for the Planning Service as a whole with a breakdown of the income generated for each of the individual teams;
 - An overall summary of the progress made by the Planning Service against its savings target for 2014/15. This should be supported by a progress update against each of the individual budget saving lines that were agreed for the service during the 2014/15 budget setting process.

- The Welsh Government is currently reviewing the fees that Welsh local authorities can apply to planning work. The Committee were informed that the last review was undertaken in 2009 and that the potential change could have a noticeable impact on levels of income generated. Members would be grateful if you could arrange for an income projection to be produced based on the 2014/15 income levels and the anticipated change in fee levels; they would also like to know when fee changes would be applied.

- Some Members were concerned that a reduction in Planning Service resources and a recent increase in the volume of planning applications would have significant impact on quality assurance around how applications are processed and their timescales. The Committee would like confirmation that quality assurance standards are being maintained when officers are dealing with new applications and that corners are not being cut to deal with increased demand and reduced staffing levels.

- It was noted that there has been a delay in developing new Statutory Planning Guidance for Houses of Multiple Occupation and Flats. Members were concerned that a lack of resources was delaying the completion of this and other vitally important Statutory Planning Guidance. They were told that there was limited capacity to develop such Statutory

Planning Guidance, and that following completion of the Local Development Plan staff would be transferred across to the Strategic Planning Service to help develop such work. The Committee would like confirmation as to when this will happen and when the Statutory Planning Guidance for Houses of Multiple Occupation and Flats will be completed. Members do not accept the argument that in order to complete the development of Statutory Planning Guidance the Local Development Plan needs to be in place; they take a view that many pieces of Statutory Planning Guidance have been completed in Cardiff without having a Local Development Plan in place.

- Members would like to receive a legal explanation on the benefit of having statutory planning guidance for a particular planning matter compared against that of not having any statutory planning guidance in place.
- Members would be grateful if you could arrange for a copy of all new statutory planning guidance to be circulated to the Committee once it is approved.
- During the meeting there was a debate around the basic level of understanding that Members have on the planning system. The Chair of the Planning Committee felt that improving basic knowledge was vital, particularly as this could help educate Members on the legislative restrictions that planning officers and the Planning Committee are constrained to work under. The Committee agree that Member training on the planning system needs to be improved. I would ask that you undertake a review of the Member training on the planning service and provide feedback to the Committee once a conclusion is reached.
- There was a debate on the best way for Members to engage in discussion around allocation of development based funding, for example, s106 funding and the Community Infrastructure Levy. It was agreed that it was important for Members to liaise with the Planning Service and other relevant services in a timely manner and that agreeing some type of formal platform for debate was vital from a strategic perspective as well as

helping to maintain the integrity of Members in the process. With this in mind the Committee would appreciate if you could give some further consideration to the following:

- A suggested structure from yourself and Chair of the Planning Committee as to how Members can best engage with this funding process.
 - If you could provide a document which sets out the criteria against which section 106 funding can be applied for and how it is allocated.
 - Members would like to know how many cases are presented to Planning Enforcement each year and from these how many result in preventative action taking place. They would also like to know if it is possible for the enforcement process to be speeded up and the level of resources allocated to planning enforcement activities.
 - Members would like to know how many cases are presented to Building Control each year and from these how many of these applications are accepted or rejected.
- The Scrutiny Chairs are aware of the current consultation exercise on the proposed Community Infrastructure Levy rates for Cardiff. They are considering how best to scrutinise this issue and will shortly inform you as to how they wish to proceed with the matter. It is anticipated that any work undertaken will be in the first calendar quarter of 2015.

Cardiff's Energy Prospectus

- Members found the presentation on Cardiff's Energy Prospectus very useful. They thought that the development of an energy prospectus was a good way to clearly map out Cardiff's local energy generation opportunities and the impact that these projects have upon the city, for example, the amount of energy produced and employment created.

- It was clear from the presentation that Cardiff, Wales and the United Kingdom face significant future energy sustainability / security challenges and that the energy prospectus could be used as a benchmarking tool to establish exactly how prepared we are to meet these. This prompted discussion and a number of important questions including:
 - Is Cardiff doing enough to generate 15% of its energy through renewable sources by 2020? There are only five years left and the city currently achieves less than the 4.1% UK average.
 - Should the Council nominate energy sustainability / security as an economic priority? For example, does it represent a good income generation opportunity at a time when budgets appear to be in continual decline, and is having a reliable supply of energy one of the fundamental building blocks for any growing economy?
 - What stake should the Council take in terms of renewable energy production? For example, is it in our interests to invest in such projects for the benefit of the Council / Cardiff citizens or should we allow the free market to fill the vacuum of this opportunity?
 - Does the Council need to document its position on the relationship between risk and reward for evaluating renewable energy projects?
 - As an organisation that spends £12m plus VAT per annum on energy is the Council in a position where it has to be proactive in achieving a reliable energy supply?

I would be grateful if could provide a response to each of these questions.

- During the meeting Members were told that the Council had decided to progress the development of the Lamby Way Solar Farm through a third party land lease arrangement instead of directly investing in the scheme. The Committee would like to receive a detailed copy of the business case for this proposal with a description of all weightings and assumptions used to evaluate the two models. They would also like a summary of the overall capital investment assessment process used including detail on

any weightings allocated for the major Council priorities and how these would impact on renewable energy projects.

- Members believe that the Council should look into and review the case for creating an arms length energy production company. They feel that such a company could have the potential to help generate an ongoing income stream for the Council and support the energy security agenda for Cardiff and Wales. As Chair of the Committee I would be happy to provide any support that I can on the matter.
- During the meeting Members were briefly told about a ground breaking project called the 'HELES Hydrogen Project'. I would be grateful if you could provide the Committee with more detail on this project.
- Members would like a further progress update on the development of Cardiff's heat energy network.
- The Committee felt that the creation of the Carbon Reduction Strategy was a positive step forward and thought that the initial draft proposals were a good starting point for the creation of a Council policy.

I would be grateful if you would consider the above comments and provide a response to the requests made in this letter.

Regards,

A handwritten signature in black ink that reads "P. D. Mitchell". The signature is written in a cursive style with a prominent underline under the name.

Councillor Paul Mitchell
Chairperson Environmental Scrutiny Committee

Cc to:

Councillor Michael Michael, Chair of the Planning Committee

Andrew Gregory, Director for Strategic Planning, Highways, Traffic & Transport

Phil Williams, Head of Planning

Simon Gilbert, Principal Planning Officer

Jane Forshaw, Director for the Environment

Gareth Harcombe, Commercial Manager – Energy & Sustainability

Joanne Watkins, Cabinet Office Manager

Members of the Environmental Scrutiny Committee

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**CABINET SUPPORT OFFICE
SWYDDFA CYMORTH Y CABINET**

My Ref / Fy Ref: CM29858
Your Ref / Eich Ref: RDB/PM/RP/
09.12.2014



Date / Dyddiad: 23 June 2015

Councillor Ralph Cook
Chair, Environmental Scrutiny Committee
Scrutiny Services
Room 263
County Hall
Cardiff
CF10 4UW

Dear Councillor Cook

Environmental Scrutiny Committee - 09 December 2014

Thank you for the e-mail from Richard Bowen on behalf of Committee Members dated 13 March 2015 requesting additional information as a result of the meeting above and my letter dated 12 March 2015. Please accept my apologies for the delay in my response; I attach additional information which I hope the Committee finds of interest.

Planning Service Redesign – Member Update

You raise a number of very important points which we would like to reply to in turn:

1: Detailed Financial Summary:

Please see the attached information at the end of this report detailing the financial summary of the Planning Service for 2014/15 that you requested.

2: Quality Assurance Post Budget Savings:

I can confirm that maintenance of service quality is a priority. Following the restructure performance has dipped – notwithstanding that productivity has significantly increased. We will now be focused on a major improvement in performance.

3. Delivery HMO Guidance

It is my intention to consult on a new supplementary planning guidance for Houses in Multiple Occupation (HMOs) alongside the adoption of the Local Development Plan (LDP). At present there is insufficient policy coverage in any development plan other than the emerging LDP which are sufficiently relevant to

PLEASE REPLY TO / ATEBWCH I: Cabinet Support Office / Swyddfa Cymorth Y Cabinet,
Room / Ystafell 534, County Hall / Neuadd y Sir,
Atlantic Wharf / Glanfa'r Iwerydd, Cardiff / Caerdydd,
CF10 4UW Tel / Ffon (029) 2087 2479

allow the Council to take forward a meaningful SPG for HMOs. Furthermore, the current Use Class Order in Wales does not allow for a distinction between types of dwelling houses below the threshold for HMOs within the C3 Use Class. Following numerous discussions with those ward members most directly affected by concentrations of HMOs it has been my considered view for some time that a new SPG will only be truly effective in resisting inappropriate subdivision if it is supplementary to the new LDP and following a decision of Welsh Ministers to introduce a new C4 use class to the Town and Country Planning Use Classes Order. Notwithstanding the above, officers are in the process of preparing this draft SPG in advance of the LDP adoption to allow the new guidance to be introduced as expeditiously as possible following the adoption of the LDP.

4: Legal Explanation for SPGs

In the considering of planning proposals guidance in SPGs is considered as 'material' in a legal sense – and thus having actual 'weight' in the decision - in the assessment. Non-SPGs i.e. guidance notes, are not material in this sense and lack any weight – they are just advisory.

5: Member Training

We can confirm that we agree to review the levels of member training.

6: Various Matters:

i. Section 106

We will provide a document that sets out criteria for s106 funding.

ii. Planning Enforcement

All Planning Enforcement related matters that are brought to the attention of the Council are investigated and the vast majority of cases are resolved through negotiation without the need of taking formal action.

Overall, there were approximately 650 cases in 2013, 600 in 2014 and nearly 200 to date in 2015. The formal Planning Enforcement Notices that were issued by the Council in 2013 and 2014, were 30 and 18 respectively. Thus far in 2015, 3 notices have been issued.

Clearly, the level of resources available will impact upon the speed at which cases can be progressed. At present, there are 3 Enforcement Officers with workload split between Development Management and Enforcement duties as part of the balanced approach taken to meet the demands of the Service as a whole within the available budget.

iii. Building Control Cases

One of the key KPI's for the building control service is the number of applications rejected. The aim of the KPI is to keep the number of first time approval of applications as high as possible and therefore the number of rejections as low as possible. The setting of a low target of rejections causes the service to work

more closely with its stakeholders in order to assist them in achieving their goal of Building Regulation approval. The Building Control service is in direct competition with the private sector for all of its building regulation chargeable functions and therefore to not work with these stakeholders in helping them to achieve their goals would be detrimental to this income generating business.

The income generating elements of the Building Regulation functions are delivered by the building control service in two parts a plan checking and appraisal part and a site inspection service part. Both parts of this section of our overall workload allow us to identify what we call pre-contravention interventions or PCIs. A PCI is where a surveyor identifies either a proposal on a plan or an actual piece of work on site that if not altered or amended will result in the functional requirements of the building regulations being contravened. The building control service has just fewer than 8 full time equivalent surveyors performing this function.

Over the period from January 2014 to June 2015 those surveyors identified on average 1, 320 PCIs each (498 at plan stage and 822 on site). A total of 16,802 stages of work were inspected on site over this period. Therefore on average about 40% of inspections result in a pre-contravention intervention by the team.

The Building Control KPI results against first time approval of applications for 2014-15 are as follows:

Period	Result
Quarter 1	98.66%
Quarter 2	98.81%
Quarter 3	99.04%
Quarter 4	99.10%
Annual Performance	98.87%

Building Control also work to the Government Good Enforcement Concordat which encourages local authorities to work with stakeholders to achieve compliance through good working relationships and helping with advice and guidance on what they need to do to achieve compliance without the need for formal enforcement action. This is very important for the building control service as a heavy handed enforcement approach through the courts would not be conducive to winning and retaining market share in what is an extremely competitive market place.

As a result we have a 100% compliance rate on completed work where we are the building control body. However, the responsibility for complying with the building regulations rests with the person carrying out the work and/or the person commissioning the work. Building Control is not a clerk of works service and it would be impossible for us to be on every site at every stage of every project. Building Control therefore operates a risk assessed approach to its inspection regime.

Note, building control does not give permission to build. Projects either require no permission (i.e. permitted development) or obtain permission through the development control process. Building Regulations are concerned with the functional performance of the completed building and therefore our role is to ensure that appropriate solutions to meet the required functional standards of the building regulations are planned and implemented.

There is no requirement to submit plans with all types of application for building regulation approval, indeed a high proportion of applications (approx. 30%) that we do receive are what are called building notices which require no plans to be submitted at all and all of our checking processes are then almost entirely site based as the work progresses.

Note also that whether the plans submitted with an application for building regulation approval comply with the requirements of the building regulations or not and whether those plans are passed or not, does not stop the person carrying out the work on site from achieving the functional standards using different methods to those shown on the plans.

Building Control received and processed 3,809 applications during the period January 2014 to June 2015. Some applications submitted prior to this period are still ongoing and there is no time constraint in the building regulations in which to complete work.

iv. CIL Update

Whilst Cardiff is unable to adopt a Community Infrastructure Levy in advance of the Local Development Plan, work has commenced in preparing a Preliminary Draft Charging Schedule (PDCS) which was the subject of public consultation in 2014. The next stage will be to publish a draft Charging Schedule later this year. Discussions are well advanced in terms of the timescales for preparing this work, where discussions are ongoing with colleagues in Scrutiny regarding future meetings in 2015.

In addition to work on Cardiff's CIL, and following the recent changes in the Planning Service, I can confirm a commitment from officers and the Chair of the Planning Committee to provide clear processes and guidance to local Members regarding the scope and timing of inputs to planning applications including consideration of planning obligations.

The CIL Regulations came into force in 2010 and these have now changed the way in which Local Planning Authorities can secure developer contributions, particularly with regard to how these contributions need to demonstrate that they are necessary, reasonable, and directly related to the proposed development. In addition, it is no longer possible to "pool" more than five contributions towards any type of infrastructure. I have attached a useful link to a briefing note on the issues around CIL and S106 obligations which I trust you find useful

<http://planningguidance.planningportal.gov.uk/blog/guidance/community-infrastructure-levy/>

Cardiff's Energy Prospectus

- **Is Cardiff doing enough to generate 15% of its energy through renewable sources by 2020? There are only five years left and the city currently achieves less than the 4.1% UK average.**

The Energy Prospectus is specifically intended to address this issue. To date, a range of projects that have been completed or are in procurement will increase the amount of local renewable energy generation in the city considerably. These include the Viridor Energy from Waste Plant, the Lamby Way Solar farm, Radyr

Weir Hydro scheme, the Anaerobic Digestion plant and a range of other smaller scale solar roof schemes. Together these will produce over 37 megawatts of electricity which is enough to power nearly 13,000 homes. Other major schemes that are being mooted by the Council and others, such as the tidal lagoon, will help to increase the renewable energy capacity of the city further but will require focussed delivery to ensure that the 2020 targets are met.

- **Should the Council nominate energy sustainability / security as an economic priority? For example, does it represent a good income generation opportunity at a time when budgets appear to be in continual decline, and is having a reliable supply of energy one of the fundamental building blocks for any growing economy?**

At the moment, all of our schemes are based on financial models that generate income and pay back on investment in terms that at least match Government Gilt (no-risk) investments. Often they exceed these terms. Given our dual challenges of supporting diminishing budgets and reducing carbon, together with other energy security and fuel poverty actions, energy sustainability / security does represent an important strand of both our economic and environmental responsibilities. Add to this the growth in jobs and supply chains that can be supported by this emerging sector, along with our active sponsorship of innovation in this field and the wider economic opportunities become clear. It would be extremely useful for the Council to officially nominate this area as an economic priority in order to further enhance this activity.

- **What stake should the Council take in terms of renewable energy production? For example, is it in our interests to invest in such projects for the benefit of the Council / Cardiff citizens or should we allow the free market to fill the vacuum of this opportunity?**

This is a very broad question and one that is directly related to the Council's wider budgetary pressures. A Cabinet paper is being prepared for the July cycle on this issue which will give a full evaluation of a range of investment/risk scenarios.

- **Does the Council need to document its position on the relationship between risk and reward for evaluating renewable energy projects?**

This would be useful, and will be possible following the debate that arises from the above mentioned Cabinet paper.

- **As an organisation that spends £12m plus VAT per annum on energy is the Council in a position where it has to be proactive in achieving a reliable energy supply?**

In May, the Cabinet received a report on the new Carbon Strategy for the Council. As you know, the Environmental Scrutiny Committee had already seen and early draft of this and has supported its aims. The Strategy sets out targets and ambitions for carbon reduction to include a focus on reducing our energy demands and on producing more of our own energy from renewable sources. This, together with the delivery of the Energy Prospectus puts us in a very proactive position to achieve greater energy security and reliability.

I trust this information is of assistance.

Yours sincerely,
Yn gwyir,



Councillor / Y Cynghorydd Ramesh Patel
Cabinet Member for Transport, Planning & Sustainability
Aelod Cabinet dros Drafnidiaeth, Cynllunio a Chynladwyedd

Enclosure

Cc Councillor Michael Michael, Chair of the Planning Committee
Andrew Gregory, Director for Strategic Planning, Highways, Traffic & Transport
James Clemence, Head of Planning
Simon Gilbert, Principal Planning Officer
Jane Forshaw, Director for the Environment
Gareth Harcombe, Commercial Manager – Energy & Sustainability
Joanne Watkins, Cabinet Office Manager
Members of the Environmental Scrutiny Committee

**CABINET SUPPORT OFFICE
SWYDDFA CYMORTH Y CABINET**



My Ref / Fy Ref: CM29858
Your Ref / Eich Ref: RDB/PM/RP/
09.12.2014

Date / Dyddiad: 13 March 2015

Councillor Paul Mitchell
Chair, Environmental Scrutiny Committee
Scrutiny Services
Room 263
County Hall
Cardiff
CF10 4UW

Dear Councillor Mitchell

Environmental Scrutiny Committee - 09 December 2014

Thank you for your correspondence dated 23 January 2015 following on from the meeting above, to which I would respond as follows.

“During the meeting Members were told that the Council had decided to progress the development of the Lamby Way Solar Farm through a third party land lease arrangement instead of directly investing in the scheme. The Committee would like to receive a detailed copy of the business case for this proposal with a description of all weightings and assumptions used to evaluate the two models. They would also like a summary of the overall capital investment assessment process used including detail on any weightings allocated for the major Council priorities and how these would impact on renewable energy projects.”

Cabinet received a report on the Lamby way Solar Farm proposal on 17 July 2014. This report can be accessed through the link for the July 2014 Cabinet meeting on the Council website and contains details of the business case, including a comparative analysis of the direct investment and land lease options.

“Members believe that the Council should look into and review the case for creating an arms length energy production company. They feel that such a company could have the potential to help generate an ongoing income stream for the Council and support the energy security agenda for Cardiff and Wales. As Chair of the Committee I would be happy to provide any support that I can on the matter.”

Officers have done some initial investigation into various “arms length” energy company arrangements that exist in other parts of the Public Sector. These include Energy Services Company (ESCO) models as well as community based investment vehicles. This work is being further informed through dialogue with Welsh Government and its Green Growth agenda. I will be working with officers in the coming months to develop this work further and would welcome the Chair’s

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Room / Ystafell 514, County Hall / Neuadd y Sir,
Atlantic Wharf / Glanfa'r Iwerydd, Cardiff / Caerdydd,
CF10 4UW Tel / Ffon (029) 2087 2479

support in this when we have a clearer picture of the options that might be available to the Council.

“During the meeting Members were briefly told about a ground breaking project called the ‘HELES Hydrogen Project’. I would be grateful if you could provide the Committee with more detail on this project.”

The Council is working in partnership with ITM Power, an energy storage and clean fuel company based in Sheffield, to deliver the “Hydrogen Enabled Local Energy Systems” (HELES) project. This project will test technologies that can produce and use Hydrogen as a renewable and carbon free source of energy. The project is funded as the result of a successful bid to Innovate UK’s ‘Local Energy Systems Scheme’.

The project has been enabled due to the rare co-existence of an active Landfill Gas Collection facility at Lamby Way (a destination for the Hydrogen fuel), and a live proposal to construct a solar farm on the same site (a local supply of clean, renewable energy to power the hydrogen plant).

ITM will deliver a bespoke “hydrolyser” facility, designed and constructed off site, which will be located at the Council’s Lamby Way waste depot. It is proposed that the system will use renewable electrical power generated at the Lamby Way Solar Farm to extract hydrogen from water. The hydrogen produced can then be used as a clean energy source, or stored for later use.

The current options for use of the hydrogen produced include:

- Injection directly into the existing landfill gas engines at Lamby Way, increasing their capacity and extending their life span.
- Use in fuel cells for hydrogen powered vehicles, or
- Injection as a renewable gas into the wider gas supply grid.

The importance of the project is in demonstrating solar power to gas energy storage, effectively converting energy generated in daylight hours into other forms that can be stored and used later off-site, or when the sunlight is not so strong.

The City Council will receive £190,000 (mainly revenue funding) from Innovate UK over a 3 year period, to support the Council’s key activities in the project which are:

- a. to facilitate supportive working agreements with the solar farm operator and the landfill gas capture contractors;
- b. to steer and support the planning application for the hydrogen plant;
- c. to support research and data collection arising from the project; and
- d. to disseminate and promote the results of the project.

“Members would like a further progress update on the development of Cardiff’s heat energy network.”

Officers are continuing to appraise options that might support the delivery of a heat network as part of a DECC funded initiative. This is a long term project that is currently looking at governance and viability issues from the three perspectives of:

- the potential heat sources (in particular the Energy from Waste plant at Trident Park)
- the construction, ownership and potential investment models that might be appropriate for the construction of the heat distribution network; and
- the potential to create a shared public sector customer base for the future purchase of the heat.

Much of this appraisal is dependent upon ongoing performance verification measurements which will be completed in the coming month. In parallel, extensive discussion has been undertaken with the DECC Heat Network Delivery Unit group and with reference to the experiences of other local authorities who have heat network proposals. There are also ongoing actions to attempt to engage the major local residential developers in dialogue on district heating opportunities on sites through early investment in network infrastructure.

“The Committee felt that the creation of the Carbon Reduction Strategy was a positive step forward and thought that the initial draft proposals were a good starting point for the creation of a Council policy.”

I thank you for this comment and look forward to your further input as the strategy makes its way through the Council decision making process.

Yours sincerely,
Yn gwyir,



Councillor / Y Cynghorydd Ramesh Patel
Cabinet Member for Transport, Planning & Sustainability
Aelod Cabinet dros Drafnidiaeth, Cynllunio a Chynladwyedd

Cc Councillor Michael Michael, Chair of the Planning Committee
Andrew Gregory, Director for Strategic Planning, Highways, Traffic & Transport
Phil Williams, Head of Planning
Simon Gilbert, Principal Planning Officer
Jane Forshaw, Director for the Environment
Gareth Harcombe, Commercial Manager – Energy & Sustainability
Joanne Watkins, Cabinet Office Manager
Members of the Environmental Scrutiny Committee

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UPDATE ON THE COUNCIL'S ENERGY PROGRAMME

REPORT OF DIRECTOR OF CITY OPERATIONS

AGENDA ITEM: 11

**PORTFOLIO: TRANSPORT, PLANNING AND SUSTAINABILITY
(COUNCILLOR RAMESH PATEL)**

Reason for this Report

1. To provide an update on the implementation of the Council's energy strategy and prioritise the next phase of delivery in view of the deterioration in the Council's financial position.

Background

2. Ensuring access to affordable, sustainable and secure energy is crucial if the City of Cardiff Council is to effectively deliver services from the lowest possible operating costs. From the city perspective, Cardiff is projected to be the fastest growing city in the UK. Meeting the growing demand for energy in a safe and environmentally responsible manner is therefore crucial if Cardiff is to achieve its vision of becoming Europe's most liveable city.
3. The Cabinet has previously considered, at its meeting in July 2014, a report entitled 'Energy for a Liveable City', which captured a pipeline of projects and initiatives to deliver against the Council's aspirations in this area. A number of these projects have now been progressed and feature in the Council's energy portfolio.

Update on Progress

4. The Council's energy programme has focused on four key areas of delivery: awareness and behaviours; efficiency and retrofit; local generation; and innovations in energy technologies. A detailed update on progress can be found in Appendix A, and a summary of progress is provided below:
 - **Awareness and behaviours:**
 - Better energy management, such as switching off energy during School holidays, has led to revenue savings of £100k.

- **Efficiency and retrofit:**
 - Energy efficiency retrofit has been delivered in almost 1,000 homes;
 - Energy saving measures have been installed across the Council's estate.
 - **Local generation**
 - Electricity generating technologies have been installed, which generate 6MW worth of electricity; which is enough to power the equivalent of 3,000 homes. These include solar schemes at Lamby Way depot roofs and landfill site, solar on schools, and hydro power at Radyr weir.
 - The development of the Viridor energy for waste plant has been successfully facilitated, which converts residual waste into 30MW of renewable energy. Work is ongoing to progress a city centre district heating scheme.
 - **Innovations in energy technologies**
 - £8m in external funding for projects has been secured, providing enough revenue income to fund 2.5 FTE salaries in the Council's Energy and Sustainability team.
 - £2.2m has been secured to deliver six energy related research and innovation projects which showcase the City's approach to sustainability, technology and product innovation.
 - Cardiff has become the first and, thus far, only local authority in the UK to run schemes under the UK Government's Small Business Research Initiative. This has involved managing innovation competitions that focused on "Heritage Retrofit" solutions and "portable renewables" technology.
 - Early discussions with the British Geological Survey have been initiated to exploit the City's geothermal sources of heat
 - Funding for "Smart City" bids have been explored. This funding would enable Cardiff to use data and technology to manage key infrastructures like transport, waste, water, energy and digital in a more effective and sustainable way.
5. The Council's ground breaking approach to energy, and in particular the development of the Energy Prospectus, has been recognised by Welsh Government. The Welsh Government is therefore pursuing options to extend the Cardiff approach across the rest of Wales. To this end Local Partnerships, a jointly owned not for profit venture between the Local Government Association and HM Treasury, have been commissioned to identify energy pipeline projects for all Local Authorities in Wales. This work has identified 143 potential projects, most of which are currently at the concept stage and need support in getting to the point of installation. If all the projects were successfully delivered, it is estimated that they would deliver 14% of the energy needs of the public sector estate.
6. Welsh Government is also considering an investment vehicle which could offer £500m borrowing capacity, or potentially equity, into energy projects. This initiative approach was launched in concept last year as "Green Growth Wales" combining direct borrowing from Welsh

Government alongside Green Investment Bank loans. This organisation has also expressed a strong interest in developing strategically important projects in partnership with the City of Cardiff Council.

Issues

7. The marked deterioration of the Council's budgetary position presents a real challenge to the financial resilience of the organisation. The scope and scale of the challenge is such that every directorate now needs to plan for a radical adjustment of delivery models to reflect an era of severe budgetary constraint. For the Council's Energy Prospectus, it will require a sharp prioritisation of identified projects. As a first step, an examination of the UK and European policy position points towards clear areas of focus:
 - **Development:** Development work should focus on adopting a zero carbon approach to new development and extensive retrofitting of existing premises. Developing and expanding energy networks to compliment Energy from Waste facilities are also acknowledged as key drivers of the agenda.
 - **Transport:** Growing cities that offer a high quality of job opportunity and a high quality of life place 'Green Transport' at the centre of their city strategies. This includes, for example, promoting renewable fuel technologies for buses and cars, and Cardiff has demonstration sites with partners to investigate Hydrogen Fuel technology.
 - **Renewable Energy Generation:** Localising and diversifying energy production are a characteristic of many successful cities, which means deploying major solar and hydro-generation schemes on city, coastal and council sites.
8. In view of the leading policy drivers, it is proposed that an urgent review of the projects in Cardiff's energy prospectus is undertaken with the aim of identifying fewer but more impactful projects. Whilst acknowledging the need to establish strategic projects it should be recognised that a significant body of work has been committed to and identified in the following sections.

Carbon Reduction Strategy

9. The Strategy sets out actions for reducing carbon emissions and achieving cost savings through 4 key strands. These include:
 - a. **Good Housekeeping-** improving building management
 - b. **Design and Asset Management-** improving or rationalising the council's built estate
 - c. **Invest-to-Save Projects-** retrofitting energy efficiency projects
 - d. **Renewable Energy Generation Projects-** generating on site renewable energy to reduce reliance on imported energy from the grid.

10. The strategy is informed by extensive data analysis and is critical to supporting future investments within the prospectus as well as any strategic decision moving forwards.

Establish District Heating / Energy Networks

11. Maximising the renewable energy potential of the Energy from Waste Plant at Trident Park has been a long standing priority for the Council and for Viridor. To this end the Council has secured funding from the Department of Energy and Climate Change (DECC) to explore the potential of delivering a district heat network to supply business and properties in the vicinity of the plant with the heat that is the by-product of its combustion process. The grant has helped identify possible investment opportunities and explore likely governance issues in the delivery of such a scheme. The funding will extend into 2015/16 and has, to date, allowed the Council to consider issues such as:
 - funding a new company to deliver and run the network;
 - becoming a customer for the heat, along with other major public sector organisations in Cardiff; and
 - addressing fuel poverty via links between the heat network and housing retrofit funding.
12. The opportunity also exists to develop Energy Networks in collaboration with major city partners, such as the Universities, and on any major new LDP housing allocation sites. A key part of this work involves scoping the range of opportunities that exist within various locations across the city. An assessment of energy network opportunities will allow options to be prioritised following a consideration of key factors such as cost, deliverability, energy benefits etc. in order to produce a preferred option or set of delivery mechanisms.
13. A business plan will then be developed based on the preferred option. This will propose appropriate governance arrangements and confirm what stake the Council could take in respect of any Municipal Heat Network management and ownership arrangement. It is in the long term interest of the City's resilience to retain a level of control of any such infrastructure development, heat supply and network construction and operators. With the Local Development Plan and district heating being a feature of new build estates, that often have greater output than demand, it is essential that strategic control remains with the Council. This can be facilitated through planning development processes and by assisting with overcoming retrofit challenges within existing infrastructure. Ultimately, a key goal is to deliver attractive Energy Tariffs for the City, its residents and business.
14. As an immediate step it is recommended that DECC funding be used to support the commencement of a dialogue with significant heat source companies on governance options for delivering and operating a district heating network, in order to identify the best vehicle to deliver the

network and achieve the Council's energy sustainability and infrastructure investment goals.

15. DECC regard this work as important in informing the next steps of their Heat Network Delivery Unit network. The findings will be the subject of a more detailed future report to Cabinet and will allow the Council to agree a strategy to develop a resourced delivery plan including engagement with the private sector.

Review the Opportunity for a Tidal Lagoon

16. The potential of tidal lagoon project off the coast of Cardiff has been mooted in the public domain. Although the opportunity remains at an initial stage of development, the Council has been approached by a private sector company with an interest in developing the concept into a major project. In response, the Council needs to consider fully the opportunities, impacts and risks involved in such a major undertaking. Part of this work will need to involve a shared understanding of the issues arising from tidal power generation along the Severn Estuary in the context of work being undertaken by Great Western Cities. This will need to inform the Council's own assessment of a development that would cost up to £7 billion and generate circa 600 MW of energy per annum. The implications of such a scheme for Cardiff need to be clearly understood.

Other Key Projects:

17. There are a range of other key energy efficiency and renewable technology projects that are supporting the Carbon Reduction Strategy. These include:
 - Additional Hydro-electric generation schemes on the City's rivers
 - Large scale roll-out of solar schemes on the Council's estate and, especially schools (a potential £12m investment)
 - Greener Grangetown Partnership with Dwr Cymru Welsh Water and the Natural Resources Wales, delivering retrofit sustainable drainage bio diversity and carbon reduction
 - Extending the conversion of Street lighting to LED technology
 - Maximising the sustainability credentials of new communities arising from the LDP by working proactively with developers and other infrastructure providers to build renewables more positively into emerging designs.
 - Further engagement with innovation funding sources including the European Union's "Horizon 2020" programme and other DECC and Innovate UK opportunities to support the roll-out of emerging technologies.

Funding

18. Going forward, a paper on capital investment criteria for "Invest to Save" schemes is currently being prepared, which will look at issues such as overall business case requirements, approval processes as part of the

budgetary framework, interest rates, repayment mechanisms, acceptable returns on investment and crucially from an energy perspective, whether there should be a maximum cap to capital exposure in certain categories of investment. This will enable the Council to determine the appropriate levels of investment it wishes to commit to the development and delivery of specific energy projects in the context of the wider social agendas.

19. In broad terms the Council's options are to :
 - Continue to invest from its own capital programme and take the rewards back into the revenue account as projects provide a return on investment,
 - Take a lower risk option of leasing assets (as in the various "rent-a-roof" solar schemes that are on offer) or leasing equipment e.g. heat exchangers or PV (similar to leases for photocopiers), though generating lower return
 - Engage more actively with community energy company models to share the responsibilities and opportunities, but this would also mean sharing the profits.
 - As the Council owned energy production estate grows, trade in energy and set up the Council's own appropriate Company vehicle.
20. In reality, a multi-dimensional approach, encompassing all of the above options may be appropriate as individual schemes often present different risks, rewards, and complexities. There are also a range of background issues which are also becoming clearer as the Council progresses work in this area. For example, there are electricity purchasing arrangements available, known as direct power purchase agreements or "sleeving", which would allow the Council as the body which owns the generating capacity to buy back that electricity at rates which are better value than traditional purchase from the grid. For instance, where the Council has energy generating projects geographically far removed from Council buildings, like Radyr Weir, this arrangement could be beneficial. Radyr Weir, for example, sells electricity to the grid at 5p per kwh, whilst County Hall purchases electricity back from the at 11p. Under a direct power purchase agreement the Council could enter into an agreement with a licensed supplier to buy back the power produced at a discounted rate of, say, 8p. The Council is currently examining these opportunities which may have positive additional benefits for the "invest to save" business cases.
21. There would need to be clear synergy between energy investment decisions and the Council's asset retention plans and other devolved financial arrangements. In particular, complexities around energy investment on the schools estate need to be understood to ensure mutual benefit to both delegated schools budgets and the Council's bottom line return on its capital investments.

22. This report highlights the diverse range of opportunities that the energy sector holds for the Council. The Council's growing intelligence in the field has, however, highlighted the complexity that underlies any investment decisions and in establishing appropriate delivery mechanisms. It is proposed, therefore, that future investment decisions are considered in the context of a delivery framework. Under this framework, self-financed projects would be prioritised where they meet the revised "Invest to Save" criteria and deliver the best income and return for the Council. The Council could seek an appropriate partner delivery mechanism where the business case is less clear.
23. Local Partnerships (LP) is currently bidding to Welsh Government to provide a support package to each Local Authority in Wales which will offer a free at point of use assistance to accelerate delivery of these projects. This would include support with feasibility studies and business cases, assessment of due diligence, identification of further opportunities for efficiency or generation, assessment of investment models eg community ownership, and identification and/or establishment of procurement frameworks to speed up and de-risk processes.
24. It is therefore proposed that the Council engages proactively with any forthcoming Welsh Government support provided via Local Partnerships. Alongside existing support such as DECC's heat network grant, and the Council's own in-house financial guidelines, a package of support exists to help fully understand the options and issues associated with each potential energy project.

Reason for Recommendations

25. To enable future decisions on energy schemes to be taken with the benefit of informed business cases and delivery options, and to ensure that engagement with potential delivery partners is transparent and mutually beneficial.

Financial Implications

26. The Budget report for 2015/16 highlighted concern about the affordability of the capital programme, and also the increasing ratio of capital financing costs to controllable budgets. Whilst direct Council investment is an option, regard must be had to the sustainability of any Council borrowing to areas such as energy compared to other Council priorities in order to minimise risk of the borrowing itself and any factors that may change in future that could impact on affordability
27. The generic Invest to Save paper referred to above will provide greater clarity to Directorates to assist with their development of their Invest to Save Capital schemes. It will consider the introduction of a "hurdle" test to reflect the opportunity cost to the Council of not being able to invest in other projects with a particular emphasis on the financial return the council could achieve from a risk free investment. Further consideration will be required of the future impact on the Council's revenue budget of the potential increased capital financing expenditure (the "gearing")

effect). Of particular significance in this context is the repayment periods of potential invest to save projects as well as the risk that the projects may not generate the expected benefits putting further strain on the Councils Revenue Budget.

28. This report outlines a strategic framework to bring forward energy projects including a potential support package to be provided by the Welsh Government. As such there are no direct financial implications arising from this report. Detailed business cases, including a financial evaluation, will still be required for individual proposals which will need to be considered and approved by Investment Review Board, Cabinet and Council as appropriate.
29. If the Green Growth Wales investment vehicle is developed then this would represent a further funding option to be added to the existing options listed in paragraph 12 of this report. The funding options available at a point in time would require assessment as part of the preparation of the detailed business case for specific projects. An assessment of the council's appetite to share risk and reward would be included as part of the evaluation of the funding options.

Legal Implications

30. There are no direct legal implications arising from this report. Each project as it comes forward will need to have legal advice and input.
31. This will include input required in connection with securing any relevant external funding (including any tariffs), appropriate terms for construction/supply, power purchase agreements, grid connections and otherwise managing risk
32. Energy projects such as those being considered will play an important part in the consideration of how the Council fulfils its duties under the Well-being of Future Generations (Wales) Act 2015 when those duties are in force
33. There are no equality implications arising from the recommendations

RECOMMENDATIONS

Cabinet is recommended to:

- (1) Note progress to date.
- (2) Agree to a review of the Council's strategic energy projects, guided by the delivery mechanisms set out in this report.
- (3) Agree that Cardiff engages with Welsh Government's Green Growth Fund and the associated Local Partnerships support package to inform and support the emerging strategy and delivery programme.

- (4) Authorise that an options appraisal be undertaken to identify the most appropriate vehicle to deliver and operate a district heat network and deliver the Council's renewable energy goals, and for a report on the findings of this work to be brought back to Cabinet.

ANDREW GREGORY

Director








10 July 2015

The following appendix is attached:










Appendix A: Programme Overview

**Energy Sustainability Team
PROGRAMME OVERVIEW
One Planet Cardiff Delivery**

Appendix A

Project	Funding Source	Amount (Council)		Partner Amounts (for other UK Partners)	Key Milestones	2015												2016												2017												
		Revenue	Capital			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Capital Projects																																										
	LAMBY WAY SOLAR ROOFS: A collection of roof mounted solar PV schemes on the roofs of the building at Lamby Way Cleansing Depot	Public Loans Work Board (PLWB)		£250,000	-	Design Phase Construction Phase Monitoring and Verification	[Gantt chart showing Design Phase in Jan-Mar 2015, Construction Phase in Apr-Jun 2015, Monitoring and Verification in Jul-Dec 2015]																																			
	LAMBY WAY SOLAR FARM: A solar farm development on the capped landfill site at Lamby Way Cleansing Depot, producing enough electricity to power approximately 2,200 homes.	Land Lease	-	-	-	Heads of Terms Development Land Lease Agreed Planning and Design Phase Construction Phase	[Gantt chart showing Heads of Terms Development in Jan-Feb 2015, Land Lease Agreed in Mar, Planning and Design Phase in Apr-Jun 2015, Construction Phase in Jul-Sep 2015]																																			
 	RADYR WEIR HYDRO SCHEME: A hydro scheme at Radyr Weir producing the equivalent of 550 homes electricity from harnessing power from the water in the Taff through 2x Archimedes turbines.	Public Loans Work Board (PLWB)	-	£2,500,000	-	Tender Period Contract Award Design Phase Construction Phase Commissioning and monitoring	[Gantt chart showing Tender Period in Jan 2015, Contract Award in Feb, Design Phase in Mar-Jun 2015, Construction Phase in Jul-Sep 2015, Commissioning and monitoring in Oct-Dec 2015]																																			
	REFIT Energy Efficiency Retrofit of Council Estate: Creation of a framework partnership with an Energy Services Company to provide implementation of energy reduction projects across the Council's building portfolio	Public Loans Work Board (PLWB)	-	£790,000	-	Completion of Invitation to Tender Tender Period Contract Award Design and Planning Construction Phase 1	[Gantt chart showing Completion of Invitation to Tender in Jan 2015, Tender Period in Feb, Contract Award in Mar, Design and Planning in Apr-Jun 2015, Construction Phase 1 in Jul-Sep 2015]																																			
 	Energy Retrofit of Housing Stock: various schemes to improve energy efficiency in Council Housing and occasionally in nearby private housing	Welsh Government (Arbed 2 and Maximising ECO) and Housing Revenue Account	£300,000	£2,900,000	?	Arbed 2 ERDF - Year 2: Caerau (141 properties) Arbed Expansion: Caerau - Phase 2 (100 properties) Brynfedw External Wall Insulation (150 properties) Trowbridge External Wall Insulation (247 properties) Trowbridge Mawr solar PV (100 properties) Coed Y Gores & Cemaes Crescent - External Wall Ins (88 properties) Engage with and bid into emerging Arbed 3 programme for 2015/18	[Gantt chart showing multiple projects starting in Jan 2015 and continuing through 2015 and 2016]																																			

**Energy Sustainability Team
PROGRAMME OVERVIEW
One Planet Cardiff Delivery**

Project	Funding Source	Amount (Council)		Partner Amounts (for other UK Partners)	Key Milestones	2015				2016				2017																			
		Revenue	Capital			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
Strategies and Policies																																	
	Green Dragon Environmental Standard - corporate registration to Level 3	CCC revenue	-	-		Internal audit																											
						External audit																											
						Environmental Statement (writing, publication and dissemination)																											
	WLGA Early Adopter Programme - corporate preparation for the Wellbeing of Future Generations Bill	WLGA - consultancy resource	-	-		2014/15 support for Corporate and Partnership Planning																											
						2015/16 support TBC																											
	Cyd Cymru - Wales Together - collective energy switching	Welsh Government	£150,000			Switch 3 registration																											
						Switch 3 offers and switching																											
						Seek funding for reduction in WG funding for year 3																											
						Switch 4 preparation and partner engagement																											
						Switch 4 delivery																											
	Carbon Reduction Strategy - production of a strategy to guide energy efficiency, energy behaviour change and renewables work	CCC revenue	-	-		Draft Document																											
						Scrutiny																											
						Cabinet Approval																											
	One Planet Cardiff - public promotion	Viridor	c.£2,000			Primary schools event																											
		SWEA	TBC			Your Green Future secondary schools event																											
Research and Development																																	
 	WISDOM: Collaborative project looking at smart/ICT systems to drive water efficiency and reduce its energy demands. Three year project with 11 partners from four Member states.	European Union "FP7"	£190,000	-	£333,000	"Developing a shared understanding amongst Stakeholders":final doc																											
						Annual review meeting at EU																											
						Oversee installation of monitoring equipment																											
						Monitor and report on findings and customer experience																											
						Dissemination of results and project end																											
 	PERFORMER: A research and innovation funding project seeking to close the gap between expected energy performance in modelling of buildings and actual operational performance - using St Teilo's school as demonstrator	European Union FP7	£280,000	-	-	Audit of relevant existing hardware and software installed at site																											
						18 Monthly review meeting at EU																											
						Identifying additional sensors and software to be installed																											
						Deploy and monitor PERFORMER equipment																											
						Dissemination of results and project end																											

