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**WEDNESDAY, 1 JULY 2020**

**TO: ALL MEMBERS OF THE COUNTY COUNCIL**

I HEREBY SUMMON YOU TO ATTEND A **VIRTUAL MEETING** OF THE **COUNTY COUNCIL** WHICH WILL BE HELD AT **10.00 AM, ON WEDNESDAY, 8TH JULY, 2020** FOR THE TRANSACTION OF THE BUSINESS OUTLINED ON THE ATTACHED AGENDA

*Wendy Walters*

**CHIEF EXECUTIVE**

<b>Democratic Officer:</b>	<b>Kevin Thomas</b>
<b>Telephone (direct line):</b>	<b>01267 224027</b>
<b>E-Mail:</b>	<b>KJThomas@carmarthenshire.gov.uk</b>

**NOTE:-**

If you require Welsh to English simultaneous translation during the meeting please telephone 0330 336 4321 Passcode: 37533938#  
(For call charges contact your service provider)

Wendy Walters Prif Weithredwr, *Chief Executive*,  
Neuadd y Sir, Caerfyrddin. SA31 1JP  
County Hall, Carmarthen. SA31 1JP

# AGENDA

1. APOLOGIES FOR ABSENCE
2. DECLARATIONS OF PERSONAL INTERESTS.
3. CHAIR'S ANNOUNCEMENTS.
4. TO APPROVE AND SIGN AS A CORRECT RECORD THE MINUTES OF THE COUNCIL MEETING HELD ON THE:-
  - 4 .1 3RD MARCH 2020 7 - 22
  - 4 .2 10TH MARCH 2020 23 - 30
  - 4 .3 10TH JUNE 2020 31 - 40
5. PUBLIC QUESTIONS:-

**5 .1 QUESTION BY A DAVIES TO COUNCILLOR EMLYN DOLE, LEADER OF THE COUNCIL**

“For several months, me and my friends have been struggling to get to school after our school bus was removed.

We have been relying on our parents to drive us to school, as the paths to school are not suitable.

The school bus being removed is having a big impact on my friends' families with parents being late for work, issues with the service bus and the weather has been horrendous.

I am concerned that the number of people being dropped off by a car is harming our environment.

People keep passing the blame so my question is when will we have our school buses back?”

**5 .2 QUESTION BY S. BERE TO COUNCILLOR EMLYN DOLE, LEADER OF THE COUNCIL**

“Urban green spaces, such as Jackson's Lane in the centre of Carmarthen town, are playing an increasingly important role as part of our urban infrastructure, not least because of their potential to absorb excess rainwater as part of sustainable urban drainage systems, and the ability of their plants and trees to act as natural air conditioning during heatwaves or dry spells. Local authorities have long recognised that its green spaces provide a range of benefits beyond their recreational value, including natural or 'ecosystem' services such as flood regulation, water quality regulation, noise absorption, carbon storage, wild species diversity, etc. Green spaces are often accurately referred to as the green lungs of a town or city, so in the light of this and the Council's own green credentials will Cllr. Dole initiate an immediate review of the decision to regenerate Jackson's Lane, to satisfy himself that the Council is doing all it can to adhere to its green credentials, whilst ensuring that the health &

wellbeing benefits of our town centres are maximised.?”

**5.3 QUESTION BY R. NARAYAN-TAYLOR TO COUNCILLOR JANE TREMLETT, EXECUTIVE BOARD MEMBER FOR SOCIAL CARE**

“In the centre of Carmarthen town there are currently only two viable areas of green space, Barn Rd. Cemetery and Jackson's Lane where residents can access clean fresh air, engage with nature, relax and meet friends. As a result, it comes as no surprise that they are much loved and in the case of Jackson's Lane very well used, particularly in the spring and summer months. In the light of the growing evidence that such green spaces make a positive contribution to physical and mental health will Councillor Tremlett request an immediate review of the Council's decision to regenerate Jackson's Lane so as to satisfy herself that the council is doing all it can to promote the health and well-being of its residents, whilst meeting its own well-being goals and the goals of the "Well-Being of Future Generations(Wales) Act 2015”

**5.4 QUESTION BY J HEATH TO COUNCILLOR CEFIN CAMPBELL, EXECUTIVE BOARD MEMBER FOR COMMUNITIES AND RURAL AFFAIRS**

“ In light of the County Council's commendable decision to declare a climate emergency at the beginning of 2019, followed by its decision to request the Dyfed Pension fund to look at divesting in fossil fuels, followed by its decision in February 2020 to call on the Welsh and Westminster governments to follow its own lead by bringing forward their net-zero carbon targets from 2050 to 2030, will Cllr. Campbell, as the Council's lead on the environment, request an immediate review of the decision to regenerate the Jackson's Lane area of Carmarthen town, to satisfy himself that the proposals for Jackson's Lane are not contrary to the Council's commendable environment agenda?”

**6. QUESTION BY MEMBERS:-**

**6.1 QUESTION BY COUNCILLOR KEVIN MADGE TO COUNCILLOR JANE TREMLETT, EXECUTIVE BOARD MEMBER FOR SOCIAL CARE AND HEALTH**

“The Covid-19 Pandemic has demonstrated that Social Care is essential to the fabric of our society which underlines the huge financial pressures being faced by Social Care in Carmarthenshire and Wales.

Could we have an update from the Executive Board Member with the latest financial pressures facing this authority In the remaining months of this financial year.”

**7. TO CONSIDER THE FOLLOWING NOTICES OF MOTION:-**

## **7.1 NOTICE OF MOTION SUBMITTED BY COUNCILLOR LIAM BOWEN**

### **Addressing Racism in Carmarthenshire**

The harrowing death of George Floyd in the USA and the weeks of protest and debate that have followed has given us all an opportunity to reflect on the harsh reality of racism across the world. We pride ourselves on being a caring, open and inclusive County, but it has to be openly acknowledged that sadly elements of racism and intolerance remain within our society today. It is therefore incumbent on this Council to formally recognise these failings, reach out to the BAME community, formulate proactive educational programmes and undertake a re-evaluation of our historical monuments in the light of recent events. Therefore:

#### **This Council**

- Makes a clear and unequivocal statement that it abhors racism, prejudice and discrimination in all its forms – past and present.
- Supports the message of 'Black Lives Matter' and believes in the right of citizens to protest peacefully in a safe environment
- Recognises the importance of BAME communities in our county and commits to working with them we aim to educate, identify and eradicate racism in Carmarthenshire.

#### **The council will:**

- Listen to the voice of BAME communities in our county and will set up a Cross Party Task and Finish group to take evidence to ensure that their concerns, fears and proposals are fully heard and informs future policy
- Work with the Dyfed Powys Police and Crime Commissioner to deal with racism, prejudice and discrimination within the judicial system
- Continue to learn from historical events in a factually balanced approach
- Commit to working with our schools to include the themes of colonialism, exploitation, discrimination and racism in the new National Curriculum and in lifelong learning
- Undertake a review of public monuments, including the one to Thomas Picton in Carmarthen, as well as street names and report upon their appropriateness in 21<sup>st</sup> century Wales
- Embrace Black History Month (October) by holding public events to highlight the reality of the negative impact of racial inequality and celebrate the contribution made by BAME communities to our local and national life

## **7.2 NOTICE OF MOTION SUBMITTED BY COUNCILLOR KEVIN MADGE**

“With the Amman Valley Railway line coal transportation coming to the end of its life, we believe that Carmarthenshire Council should carry out a feasibility study of the railway line, to see if we could do a modern environmentally-friendly green railway. The modern rail bus would connect the Amman Valley and the Gwendrath Valley with Llanelli and Swansea.

The line could to help reduce transport poverty, help residents to travel to work and bring tourists into our valleys, creating jobs in the years to come. This line was established in 1842 and we must preserve it for our future generations.

It is essential that a feasibility study be carried out, with the line being mothballed as soon as possible to ensure that any future plans remain affordable to the public.”

### **7.3 NOTICE OF MOTION SUBMITTED BY COUNCILLOR ROB JAMES**

“That Carmarthenshire Council agrees:

1. To directly employ all the agency staff working in the theatre made redundant by the Agency instead of furloughing them as requested by Carmarthenshire County Council.
2. That the Authority should complete of a full review into the use of agency work within Carmarthenshire County Council and publish its findings on our website as soon as possible.
3. That the Council should seek to TUPE all agency workers employed for more than 2 years as permanent employees.
4. That we should stop the practice of paying fees to agency companies and evaluate opportunities for creating in-house systems to support all departments including but not exclusively, teachers and teaching assistants, social workers and care workers and our hospitality/leisure teams.”

## **8. TO CONSIDER THE RECOMMENDATIONS OF THE EXECUTIVE BOARD IN RESPECT OF THE FOLLOWING ITEMS**

**8.1 HOMES AS POWER STATIONS (EXECUTIVE BOARD 16TH MARCH 2020)** 41 - 182

## **9. TO RECEIVE THE REPORTS OF THE MEETINGS OF THE EXECUTIVE BOARD HELD ON THE:-**

**9.1 16TH MARCH 2020** 183 - 188

**9.2 1ST JUNE 2020** 189 - 190

**10. MINUTES FOR INFORMATION (AVAILABLE TO VIEW ON THE WEBSITE)**

**10 .1 EDUCATION AND CHILDREN SCRUTINY COMMITTEE - 23RD JANUARY 2020**

**10 .2 ENVIRONMENTAL AND PUBLIC PROTECTION SCRUTINY - 21ST FEBRUARY 2020**

**10 .3 LICENSING COMMITTEE - 24TH FEBRUARY 2020**

**10 .4 PLANNING COMMITTEE - 27TH FEBRUARY 2020**

**10 .5 DYFED PENSION FUND COMMITTEE - 2ND MARCH 2020**

**10 .6 PLANNING COMMITTEE - 4TH MARCH 2020**

**10 .7 SOCIAL CARE AND HEALTH SCRUTINY COMMITTEE - 5TH MARCH 2020**

**10 .8 EDUCATION AND CHILDREN SCRUTINY COMMITTEE - 11TH MARCH 2020**

## COUNTY COUNCIL

**TUESDAY, 3<sup>RD</sup> MARCH, 2020**

**PRESENT:** Councillor K. Madge (Chair)

**Councillors:**

F. Akhtar	S.M. Allen	L.R. Bowen	K.V. Broom
C.A. Campbell	J.M. Charles	D.M. Cundy	S.A. Curry
W.R.A. Davies	T.A.J. Davies	G. Davies	H.L. Davies
I.W. Davies	J.A. Davies	K.Davies	S.L. Davies
E. Dole	J.S. Edmunds	P.M. Edwards	L.D. Evans
R.E. Evans	W.T. Evans	A.L. Fox	S.J.G. Gilasbey
P. Hughes-Griffiths	T.M. Higgins	J.K. Howell	P.M. Hughes
J.D. James	R. James	D.M. Jenkins	G.H. John
C. Jones	B.W. Jones	D. Jones	G.R. Jones
H.I. Jones	A. Lenny	M.J.A. Lewis	S. Matthews
A.S.J. McPherson	E. Morgan	A.G. Morgan	S. Najmi
D. Nicholas	B.D.J. Phillips	D. Price	J.G. Prosser
B.A.L. Roberts	E.M.J.G. Schiavone	H.B. Shepardson	A.D.T. Speake
B. Thomas	D. Thomas	E.G. Thomas	G.B. Thomas
G. Thomas	J. Tremlett	A.Vaughan Owen	D.T. Williams
J.E. Williams	D.E. Williams		

**Also Present:**

W. Walters, Chief Executive  
 C. Moore, Director of Corporate Services  
 J. Morgan, Director of Community Services  
 G. Morgans, Director of Education & Children's Services  
 R. Mullen, Director of Environment  
 R. Hemingway, Head of Financial Services  
 L.R. Jones, Head of Administration and Law  
 P.R. Thomas, Assistant Chief Executive (People Management & Performance)  
 L Morris, Senior Press Officer  
 A Clarke, Lead Business Partner (HR)  
 M.S. Davies, Democratic Services Officer

**Chamber, County Hall, Carmarthen, SA31 1JP 10.00 am - 1.00 pm**

**1. APOLOGIES FOR ABSENCE**

Apologies for absence were received from Councillors C.A. Davies, D.C. Evans, H.A.L. Evans, A.D. Harries, C.J. Harris, A. James, J. P. Jenkins, K. Lloyd, J.S. Phillips, L.M. Stephens.

**2. DECLARATIONS OF PERSONAL INTERESTS**

Councillor	Minute Number	Nature of Interest
L.R. Bowen	12 – Pay Policy Statement 2020/21	Mother and wife work for the Authority
K. Broom	9 - Housing Revenue	Private Landlord

	Account Budget 2020/21 to 2022/23 and Housing Rent Setting for 2020/21	
C.A. Campbell	12 – Pay Policy Statement 2020/21	Brother and sister-in- law are teachers
Arwel Davies	12 – Pay Policy Statement 2020/21	Sister-in Law is a Head of Service
I.W. Davies	9 - Housing Revenue Account Budget 2020/21 to 2022/23 and Housing Rent Setting for 2020/21	Private Landlord
J.A. Davies	12 – Pay Policy Statement 2020/21	Son is a teacher
E. Dole	12 – Pay Policy Statement 2020/21	Mother and daughter- in-law work for the Council
J.S. Edmunds	9 - Housing Revenue Account Budget 2020/21 to 2022/23 and Housing Rent Setting for 2020/21	Private Landlord
J.S. Edmunds	12 – Pay Policy Statement 2020/21	Daughter works in Education
L.D. Evans	12 – Pay Policy Statement 2020/21	Daughter is a Teacher
R. Evans	12 – Pay Policy Statement 2020/21	Daughter works in the library service
S.J.G. Gilasbey	12 – Pay Policy Statement 2020/21	Sister-in law works in Education
T.M. Higgins	12 – Pay Policy Statement 2020/21	Sister –in-law and niece work in the library service
P. Hughes-Griffiths	12 – Pay Policy Statement 2020/21	Daughter is a teacher
R. James	12 – Pay Policy Statement 2020/21	Partner works for the library service
G. John	12 – Pay Policy Statement 2020/21	Daughter works in Housing
A.C. Jones	9 - Housing Revenue Account Budget 2020/21 to 2022/23 and Housing Rent Setting for 2020/21	Private Landlord
B.W. Jones	12 – Pay Policy Statement 2020/21	Son is a teacher in Carmarthenshire
G.R. Jones	12 – Pay Policy Statement 2020/21	Wife works in Education Department
K. Madge	12 – Pay Policy Statement 2020/21	Daughter works in Social Care



A.G. Morgan	9 - Housing Revenue Account Budget 2020/21 to 2022/23 and Housing Rent Setting for 2020/21	Tenant at Delta Lakes in Llanelli
D. Nicholas	12 – Pay Policy Statement 2020/21	Daughter works in Planning
D. Price	9 - Housing Revenue Account Budget 2020/21 to 2022/23 and Housing Rent Setting for 2020/21	Private Landlord
G.B. Thomas	12 – Pay Policy Statement 2020/21	Sister is a teacher
G.B. Thomas	9 - Housing Revenue Account Budget 2020/21 to 2022/23 and Housing Rent Setting for 2020/21	Private Landlord
A Vaughan-Owen	12 – Pay Policy Statement 2020/21	Wife is a teacher

### 3. CHAIR'S ANNOUNCEMENTS

- The Chair extended his congratulations to Mrs Mary Keir, a resident at Awel Tywi Home in Ffairfach, who was celebrating her 108<sup>th</sup> birthday today;
- The Chair stated that he had attended a visit by HRH The Princess Royal to the Corgi Hosiery factory in Ammanford;
- The Chair stated that he was saddened to hear of the passing of Kevin James from the Authority's Highways Department. Kevin had attended many Planning Committees and would be sadly missed. The Chair, on behalf of Elected Members and staff, extended his condolences to Kevin's family;
- The Chair stated that he and his Vice-Chair had attended several events on the Council's behalf during the last month, some of which were detailed on his blog on the Council's website;
- Councillor Arwel Davies, congratulated Menna Evans, from Llansadwrn, on becoming the fastest woman, a new Guinness World Record, to run the length of New Zealand, from Cape Reinga to Bluff [1280 miles]. Menna had completed the run in 36 days and had also raised money for the charity Mind;
- The Leader made a brief statement on the Coronavirus stating that Wales was well prepared and testing was being offered .

### 4. PUBLIC QUESTIONS

The Chair advised that no public questions had been received.

### 5. QUESTIONS BY MEMBERS

The Chair advised that no questions from Members had been received.

## 6. NOTICE OF MOTION SUBMITTED BY COUNCILLOR ALUN LENNY

Council considered the following Notice of Motion submitted by Councillor Alun Lenny:-

“Climate Change urgency - Sound scientific evidence attributes warmer temperatures and changes to the paths of storms across the north Atlantic to climate change. As a consequence, Carmarthenshire and other parts of Wales and the UK have suffered severe flooding for the second time in 16 months. It is both timely and ironic that the recent floods happened just days after Carmarthenshire County Council voted to implement its radical policy to become net zero carbon by 2030 – the first authority in Wales to do so.

This council notes, with dismay, that both the Welsh and UK Governments have set 2050 as a target date to be net zero carbon. We call on both governments to follow this authority’s lead and recognise the need to act with greater urgency by bringing forward their target dates.”

The Motion was duly seconded.

The proposer and seconder of the Motion were afforded the opportunity of speaking in support thereof and outlined the reasons for its submission, as set out in the Motion.

A number of statements were made in support of the motion.

**RESOLVED that the Motion be supported.**

## 7. EXECUTIVE BOARD RECOMMENDATION - REVENUE BUDGET STRATEGY 2020/21 TO 2022/23

Council was informed that the Executive Board, at its meeting held on the 24<sup>th</sup> February, 2020 (Minute 6 refers) had considered the revenue Budget Strategy 2020/21 to 2022/23 and had made a number of recommendations, as detailed within the report of the Director of Corporate Services, for Council’s consideration.

Council received a presentation by the Executive Board Member for Resources, on behalf of the Executive Board, in which he set out the background to the budget proposals being presented to the Council for consideration.

The Executive Board Member for Resources stated that the report brought together the latest position on the budget proposals and the Executive Board recommendations on concluding the Medium-Term Financial Plan for 2020/21 to 2022/23. He added that the Welsh Government’s final settlement had not been published until the day after Executive Board had met to consider the final budget, and the final Welsh Government budget was still to be debated in the Senedd. The changes made by Welsh Government to the settlement had been amendments to specific grants only, and therefore core funding remained the same as the details included within the report, the headline being an increase of 4.3% on all Wales basis, with Carmarthenshire receiving 4.4%. This reflects to some extent Welsh Government’s recognition of the unprecedented level of inflationary and

unavoidable pressures facing local authorities. However, this did not detract from the fact that savings are still required despite the welcomed funding increase.

The Executive Board Member for Resources stated that updated information in respect of grants and assumptions had provided additional funding when compared to the provisional budget agreed by the Executive Board on 6<sup>th</sup> January 2020. This meant that some of the proposals within the original Budget outline had been revisited and further options considered.

He commented that local authority finances remained challenging and it continued to be hard to plan as Welsh Government again had only been able to provide figures at Authority level for one year. The Westminster Comprehensive Spending Review had, in effect, been fast tracked, with a fuller, multi-year review now expected to be undertaken in 2020.

He advised that some adjustments had been made by the Director to some of the other figures within the strategy which was part of the normal routine as clearer and more information became available. The current total validation added some £11.8m on to the budget excluding Teachers Pensions costs. The most significant validation this year remained pay, however the report highlighted the high level of uncertainty given the gap between the two sides currently in negotiation. In the absence of any greater clarity, the budget allowed for a 2.75% increase. This pay offer did not apply to teachers who were covered by separate national pay arrangements. The September 2019 award had been set at 2.75% and this level was assumed for future years, though it was also recognised as a key risk to the budget.

The Executive Board Member advised that the budget proposals consulted upon in January 2020 had assumed a full validation of pay and inflationary pressures to schools, therefore, as updated information was available on increased pressures, a further £311,000 had been added, taking the overall increase in schools delegated budgets to £10.1 million. This, it was considered, demonstrated significant support to schools, which was greater than that given to other departments and provided schools with the same spending power as the current year.

In spite of the additional pressure necessitated by the compressed budget timetable, the Executive Board Member deemed this year's consultation process a great success with more than 2,000 responses. It had again been wide and varied using the following mixed methods of approach to ascertain the views on the budget: Member Seminars; Scrutiny Committees; School Budget Forum; On-line surveys; Town and Community Council meetings; Trade union meetings; Schools Insight Session. A full appraisal of the consultation response was included within the report.

The Executive Board Member reported that in view of the more positive settlement a value of £560,000 had been available to make some critical adjustments to the budget strategy. He therefore recommended, on behalf of Executive Board, that the following adjustments, which took account of the consultation process and responded to the feedback from the proposals that were not supported, be made to the Budget Strategy:

Firstly, that the following proposals be removed:

- the closure of Whitland Household Waste Recycling Centre. This proposal had the most negative index score as well as more than 500 comments from the public;
- the closure of public toilets as this had the second most negative index score;
- the reduction to the Youth Support Services budgets, recognising the public consultation response as well as members' concerns and
- the proposed increases to cemetery charges.

It was also confirmed that, following discussions with officers in respect of leisure services who had originally proposed increasing charges, the additional income required would be met through increased usage of the Leisure Centres, negating the need to increase charges.

Secondly, that the following proposals be deferred:

- The proposed efficiency on ALN budgets be deferred to year 3 until new arrangements under the ALN (Wales) Act were better embedded;
- That the proposed administration fee for residential placements self-funders be deferred until year 3 of the plan.

The Executive Board Member also proposed, in recognition of the service pressures faced by departments, that:

- the £128,000 balance of additional Social Care Workforce grant be applied to Social services;
- £140,000 be provided towards highways budgets to improve more roads and improve capacity;
- £140,000 be delegated to the Director of Education to prioritise according to the department's requirements, recognising there were a number of pressures which it had not been possible to fund in the draft budget.

Adopting these proposals would, he considered, allow the County Council to deliver a fair and balanced budget, which responded to the major concerns fed back from the consultation. He therefore moved the recommendations of the Executive Board, subject to the amendments outlined above, in respect of the Budget Strategy 2020/21 and the Council Tax increase of 4.89% and approval of the medium term financial plan as a basis for the future years financial planning. The proposal was duly seconded.

The following amendment was thereupon proposed and seconded:-

“That money be released from reserves to fund bus services for those school children whose bus services have been removed due to regulation until the end of the summer term 2020 - cost estimated at £150k.”

The proposer outlined the rationale for the amendment.

Following a debate, during which advice was received from the Director of Corporate Services / Section 151 Officer on the budgetary implications and risks

and the Head of Administration and Law on the legal risks in relation to the proposed amendment, it was

**RESOLVED that the Amendment to the Motion be not supported.**

Council thereupon proceeded to vote on the substantive Motion and it was

**FURTHER RESOLVED that the Motion be adopted and that the following recommendations of the Executive Board be adopted:-**

**7.1 that the Budget Strategy for 2020/21, be approved subject to the following amendments:**

**2020/21**

- 7.1.1 the removal of the Youth Support Services budget reduction of £50k, recognising the public consultation response as well as members' concerns;**
- 7.1.2 to not implement the proposed increases to cemetery charges [£2k];**
- 7.1.3 the proposed efficiency on ALN budgets be deferred to year 3 until new arrangements under the ALN (Wales) Act are better embedded [£100k];**
- 7.1.4 the £128k balance of additional Social Care Workforce grant is applied to Social Services;**
- 7.1.5 £140k is provided towards highways budgets to improve more roads and improve capacity;**
- 7.1.6 £140k is delegated to the Director of Education to prioritise according to the department's requirements, recognising there were a number of pressures which it was not possible to fund in the draft budget;**
- 7.1.7 in respect of leisure services the additional income will be raised through increased usage rather than charges;**

**2021/22 and 2022/23**

- 7.1.8 to remove the proposal to close Whitland Household Waste Recycling Centre. This proposal had the most negative index score as well as more than 500 comments from the public;**
- 7.1.9 to remove the proposal to close public toilets as this had the second most negative index score;**
- 7.1.10 that the proposed administration fee for residential placements self funders be deferred until year 3 of the plan;**

**7.2 that the Band D council Tax for 2020/21 be set at £1,316.55 (an increase of 4.89% for 2020-2021);**

**7.3 that the £560k recurrent funding available be used in full to support the proposed amendments in 7.1.1 to 7.1.6 above;**

**7.4 that the Medium Term Financial Plan be approved as a basis for future years financial planning.**

**8. EXECUTIVE BOARD RECOMMENDATION - FIVE YEAR CAPITAL PROGRAMME (COUNCIL FUND) – 2020/21 TO 2024/25**

The Executive Board Member for Resources presented to the Council, on behalf of the Executive Board, the Five-Year Capital Programme (Council Fund) 2020/221 to 2024/2025, which took into account the consultation exercise undertaken and the Welsh Government settlement. The Executive Board, at its meeting held on the 24<sup>th</sup> February, 2020 [minute 7 refers] had considered the Programme and had made a number of recommendations for Council's consideration.

The Executive Board Member for Resources stated that the proposed capital programme, which anticipated an estimated spend of nearly £255m over the five years 2020/221 to 2024/2025, optimised the funding opportunities and maximised the funding available from external sources. A combination of existing and new schemes would, it was considered, develop the local economy, create jobs and enhance the quality of life for residents of Carmarthenshire. County Council funding for the programme was currently estimated at £126m with a further £129m sourced from external grant funding bodies. No forward indicators had been provided by Welsh Government in respect of capital funding beyond 2020/21 and the programme was, therefore, based on future years supported borrowing and general grant being at the same level as 2020/21.

The Executive Board Member for Resources advised that many of the investments, such as the 21<sup>st</sup> century schools programme, highways, regeneration and housing, would be familiar but it had again been possible to add investment into schemes which were deemed important for the county. Within Community Services the capital programme made material investment in leisure and cultural services. The most significant of these was £1.9m investment of new money into Oriel Myrddin, with £650k to be invested in Carmarthen Leisure Centre to complete the masterplan and continued support for private sector housing in 2024/25 for Disabled Facilities Grants. Within the Environment Department there would be continued support for highway improvements, bridge maintenance and road safety schemes in 2024/25. Council funding on highway maintenance would continue to be bolstered in 2020/21 through the Road Refurbishment Grant provided by Welsh Government. Council was informed that it had been possible to make additional commitments across the Council's estates with £2.5m provision for essential work to County Hall, £500k for works at Ty Elwyn and £3.5m towards the continued maintenance across the estate in 2024/25. New monies would be provided for Zero Carbon initiatives across the estate. Additionally, £2.7m of additional funding from Welsh Government would be utilised for the maintenance of school buildings. £4m was included for the redevelopment of Llandeilo Market Hall and £847k for the continued investment in Glanamman Industrial Estate. £500k had also been allocated towards the actions required following the Climate Emergency declared in 2019/20.

The Executive Board Member for Resources commented that support was also provided for the transformation strategy project within regeneration for 2024/25 which had the potential of attracting significant external funding to match-fund the Council's budget. Council's attention was drawn to the comprehensive details set out in appendix B to the report together with the reserve list of priorities. Officers would continue to monitor individual schemes and funding availability. Whilst both would need to be closely managed to ensure the schemes were delivered in full the Executive Board Member for Resources reported that the current programme was fully funded for the 5 years. Included in appendix C to the report was the



Council's Capital Strategy 2020/21 which was required by the Prudential Code of Capital Finance and detailed the long-term context in which capital expenditure and investment decisions were made.

In conclusion the Executive Board Member for Resources believed the capital programme was comprehensive, exciting and ambitious, with the Authority maximising opportunities and he thereupon moved the recommendations of the Executive Board.

The proposal was duly seconded.

The following amendment was thereupon proposed and seconded:-

“That the Authority invests in the setting up of a bus company using clean energy such as electric power by the start of the new school year 2020 by utilising £3m from capital reserves.”

Council was advised that current legislation did not allow for local government to run transport companies although a Draft Public Transport (Wales) Bill was due to be considered by Welsh Government which may address this issue. The Director of Corporate Services /Section 151 Officer commented that if it was proposed to utilise £3m for the purpose stated then Council would need to identify what would be removed from the proposed Capital Programme to fund it as all the capital reserves were allocated over the 5 year programme. It was also clarified that if the £3m was funded by additional borrowing it would impact on the already agreed Revenue Budget [Minute 7 above refers].

*[At this point the Chair adjourned the meeting for 20 minutes to enable the proposer and seconder of the amendment to seek further advice from the Director of Corporate Services / Section 151 Officer.]*

Upon the reconvening of the meeting the proposer of the amendment stated that, with the consent of his seconder, he wished to withdraw the amendment following clarification from the Director of Corporate Services / Section 151 Officer and in the knowledge that the Welsh Government was in the process of considering the Draft Public Transport (Wales) Bill. It was requested, however, that cross-party discussions be commenced to consider the options and cost implications for establishing a transport company in anticipation of the aforementioned Bill's approval. The Chief Executive, in response to comments relating to the operational scope of such a transport company, suggested that the issue could be considered within the remit of the Swansea Bay City Deal in the context of establishing a regional transport plan. Members accepted this as a way forward.

**UNANIMOUSLY RESOLVED** that the following recommendations of the Executive Board be accepted:-

- 8.1 that the Five-Year Capital Programme and its funding, as detailed in Appendix B to the report, with 2020/21 being a hard budget and 2021/22 to 2024/25 soft/indicative budgets be approved;**
- 8.2 that the programme be reviewed if anticipated external or County Council funding did not materialise;**
- 8.3 that the Capital Strategy, as detailed in Appendix C, be approved.**

## 9. EXECUTIVE BOARD RECOMMENDATION - HOUSING REVENUE ACCOUNT BUDGET 2020/21 TO 2022/23 AND HOUSING RENT SETTING FOR 2020/21

(NOTE: Councillors K. Broom, J. Edmunds, A.C. Jones, A.G. Morgan, D. Price, G.B. Thomas had earlier declared an interest in this item)

Council was informed that the Executive Board, at its meeting held on the 24<sup>th</sup> February, 2020 [minute 8 refers] had considered the Housing Revenue Account Budget 2020/21 to 2022/23 and Housing Rent Setting for 2020/21 and had made a number of recommendations, as detailed within the Director of Corporate Services' report, for Council's consideration. It was noted that the report had also been considered, and endorsed, by the Community Scrutiny Committee at its meeting held on the 5<sup>th</sup> February 2020 as part of the budget consultation process.

The report had been prepared reflecting the latest proposals contained in the Housing Revenue Account (HRA) Business Plan, being the primary financial planning tool for delivering the Carmarthenshire Homes Standard *Plus* (CHS+) for the future. It was noted that the proposed investment within the current business plan had delivered the CHS by 2015 (to those homes where tenants had agreed to have the work undertaken) provided investment to maintain the CHS+ and continued investment for the Council's Affordable Housing Commitment.

The Executive Board Member for Resources commented that capital investment in the region of £230m had delivered the Carmarthenshire Home Standard for tenants and a further £49m had been spent in maintaining the CHS+ home standard for properties and tenants. Over the next 3 years it was expected that a further £49m would be spent on maintaining and upgrading the housing stock. He added that £42m would be provided over the next 3 years to support the affordable homes programme and this would see the increase in the supply of affordable housing throughout the county.

The Executive Board Member for Resources advised that, since 2015, the Authority had been required to adopt the Welsh Government Policy for Social Housing Rent Harmonisation, meaning that the proposed rent increase was prescribed by Welsh Government guidance and provided an equitable distribution of the rents for the social sector tenants. The policy had ended in 2018/19 and an interim policy adopted for 2019/20 for one year. The Welsh Government had now developed a new policy for implementation in 2020/21. This policy allowed Local Authorities within their target rent band to increase rent by CPI +1% only. It also allowed for the level of rent for individual tenants to raise by up to an additional £2 over and above CPI +1% for rent harmonisation, on condition that total rental income collected by the social landlord increased by no more than CPI +1%. The new policy would apply for 5 years from 2020/21 and contained additional criteria around tenant satisfaction, space standards, minimisation of evictions and energy efficiencies. It also identified the need to decarbonise social housing stock, which would be a major investment for Authorities.

**UNANIMOUSLY RESOLVED that the following recommendations of the Executive Board be adopted:-**

**9.1 Increase the average housing rent as per the Welsh**



**Government's Social Housing Rents Policy :-**

- a) Properties at target rents to increase by 2.53%;
- b) Properties where rent is below target rent will increase by 2.53% plus a maximum progression of £1;
- c) Those rents above target be frozen until such time as they meet the target rent;
- d) Thereby producing an increase on average housing rent of 2.7% or £2.36.

- 9.2 To implement maximum progression of £1.00, for rents below target, until target rents are achieved.
- 9.3 To maintain garage rents at £9.00 per week and garage bases at £2.25 per week.
- 9.4 To apply the service charge policy to ensure tenants who received the benefit from specific services paid for those services.
- 9.5 To increase charges for using the Council's sewerage treatment works in line with the rent increases.
- 9.6 Approve the Housing Revenue Account Budget for 2020/21 (with 2021/22 and 2022/23 being soft budgets) as set out in Appendix B.
- 9.7 Approve the proposed Capital Programme, and applicable funding, for 2020/21 and the indicative spends for the future years 2021/22 to 2022/23 as set out in Appendix A.

**10. EXECUTIVE BOARD RECOMMENDATION - THE CARMARTHENSHIRE HOMES STANDARD PLUS (CHS+) BUSINESS PLAN 2020-23**

Council was informed that the Executive Board, at its meeting held on the 24<sup>th</sup> February 2020 (Minute 9 refers) had considered the Carmarthenshire Homes Standard Plus (CHS+) Business Plan 2020-2023, the purpose of which was to:-

- Explain the vision and detail of maintaining and improving the Carmarthenshire Homes Standard Plus over the next three years, and what it means for tenants;
- Set out the intention to develop a new Carmarthenshire standard by continuing to move towards carbon neutral homes, both existing and new, ensuring new supply chain, jobs and training opportunities are delivered;
- Confirm the financial profile, based on current assumptions, for the delivery of the CHS+ over the next three years;
- Produce a business plan for the annual application to Welsh Government for Major Repairs Allowance (MRA) for 2020/21, equating to £6.1m.

The Executive Board Member for Housing commented that the Council would be working with partners to develop a new Carmarthenshire standard by continuing to move towards carbon neutral homes, both existing and new. With the assistance of Cardiff University, the Authority had been working on the retrofitting of a range of low carbon technologies including renewable energy supplies, energy storage and energy demand reduction technologies. She stated that nearly £49m had been set aside to maintain the CHS+ for existing tenants over the next 3 years to enable tenants to benefit from homes that were carbon friendly and cheaper to run.

The Executive Board Member for Housing confirmed that the Authority was on the verge of achieving its promise of delivering 1,000 more affordable homes by 2021 as a result of buying houses on the market, bringing empty houses back in to use and by building new homes. She added that whilst much had been achieved, it was recognised that there was still more to be done but the Authority was ready to face the challenges. The published plan detailed the Authority's intention to develop a new build programme for Cartrefi Croeso to enable the maximisation of housing especially in rural areas. Work to build new Council homes at Dylan had already started and with nearly £52m available to spend over the next three years on building more Council homes this would align with the wider housing investment programme. This would enable the Authority to focus on the proposed development in the Tyisha ward, the Wellness Village, Town Centres and rural towns.

The Executive Board Member for Housing advised that the Authority was aware that the introduction of Universal Credit had presented a challenge for tenants in managing their monthly budgets, but the action plan implemented by the Authority had reduced the impact as much as possible for them. In conclusion she expressed the view that whilst this was an exciting time it was also a time of uncertainty for tenants. However, the Authority had been able to keep the rent increase for 2020/21 at an average of 2.7% and that this achievement should not be underestimated. Over the next year the Authority would need to ensure clarity from Welsh Government on future financial priorities in terms of maintaining existing standards, introduction of new standards to support the decarbonisation agenda and building affordable homes for those in need.

**UNANIMOUSLY RESOLVED that the following recommendations of the Executive Board be adopted:-**

- 10.1 That the vision of the CHS+ and the financial and delivery programme over the next three years be confirmed;**
- 10.2 That the submission of the 2020/23 Business Plan to Welsh Government be confirmed;**
- 10.3 That the intention to develop a new Carmarthenshire standard by continuing to move towards carbon neutral homes, both existing and new, ensuring new supply chain, jobs and training opportunities are delivered be noted.**

#### **11. EXECUTIVE BOARD RECOMMENDATION - TREASURY MANAGEMENT POLICY AND STRATEGY 2020-21**

Council was informed that the Executive Board, at its meeting held on 24<sup>th</sup> February, 2020 (minute 10 refers) had considered the Treasury Management Policy and Strategy 2020/21.

The Executive Board Member advised Council that in line with the requirements of the revised CIPFA Code of Practice on Treasury Management, the Council must maintain a Treasury Management Policy detailing the policies and objectives of the Authority's treasury management activities and also approve a Treasury Management Strategy annually before the start of the financial year to which it

relates. In addition, under the Local Government Act 2003, the Council was required to approve the Treasury Management Indicators for the coming year.

In accordance with the above requirements, Council considered the Treasury Management Policy and Strategy for the 2020/21 financial.

**UNANIMOUSLY RESOLVED that the following recommendations of the Executive Board be adopted:-**

**11.1 That the Treasury Management Policy and Strategy for 2020-21 and the recommendations contained therein be approved;**

**11.2 That the Treasury Management Indicators, Prudential Indicators, Minimum Revenue Provision Statement, the Investment Strategy and recommendations therein be approved.**

## **12. PAY POLICY STATEMENT 2020/21**

[NOTE:

1. Councillors L.R. Bowen, C.A. Campbell, Arwel Davies, J.A. Davies, E. Dole, J.S. Edmunds, L.D. Evans, R. Evans, S.J.G. Gilasbey, T.M. Higgins, P. Hughes-Griffiths, R. James, G. John, B.W. Jones, G.R. Jones, K. Madge, D. Nicholas, G.B. Thomas and A. Vaughan-Owen had earlier declared interests in this item;
2. All officers in attendance at the meeting declared a personal interest in this item and left the meeting prior to its consideration with the exception of the Assistant Chief Executive (People Management and Performance who remained in the meeting to respond to any questions arising on the report), the Democratic Services Officer, who remained in the meeting to take notes and the Webcasting Officer].

The Council was reminded that under the provisions of the Localism Act 2011 all Local Authorities were required to prepare a Pay Policy Statement which must be agreed and published by 1<sup>st</sup> April every year. The Statement required the approval of full Council and had to set out the Authority's policies for the financial year relating to the remuneration of its Chief Officers, its lowest paid employees and the relationship between the remuneration of its Chief Officers and its employees who were not Chief Officers.

Apart from the recent agreement on the payment of a Winter Maintenance Allowance (which was incorporated into the Pay Policy) there were no significant changes to policies or regulations this year and as the NJC Trade Unions and employers had not yet concluded pay negotiations, the Pay Policy included 2019-2020 pay scales which would be updated once notification had been received of an agreement. The new pay scales would then be incorporated into the Pay Policy.

It was noted that the Council's politically balanced Pay Policy Advisory Panel had provided input into the formulation of the Pay Policy Statement and its recommendations had been incorporated into the final document for the Council's

approval. In particular, the Panel had been keen to continue supporting the lowest paid by ensuring that the equivalent of the “Real Living Wage” (RLW), as set by the Living Wage Foundation, was paid from 1<sup>st</sup> April 2020. The new hourly rate was £9.30 so a Living Wage Supplement would be payable to some employees from 1<sup>st</sup> April pending the outcome of the National Pay negotiations. This would mean that an increase in pay for the lower paid would not be delayed. The cost to the Council would be in the region of £4K.

**UNANIMOUSLY RESOLVED that the Pay Policy Statement 2020/21 be approved in compliance with Section 38(1) of the Localism Act 2011.**

**13. BRECON BEACONS NATIONAL PARK AUTHORITY**

Council considered its representation on the Brecon Beacons National Park Authority [BBNPA] in light of advice from the Deputy Minister for Local Government and Housing that the reduction in its representation from the current 2 members to 1 member would take effect from 1st April 2020 in line with the proposal to reduce total membership from 24 to 18 members.

The Council’s current representatives were Councillors Andrew James (80% of ward within park area) and Kevin Madge (50% of ward within park area) and as such it was recommended that the Council’s representation be revised in accordance with the decision of Welsh Government and that Cllr Andrew James be appointed as the Council’s sole representative on the BBNPA.

It was considered that the Welsh Government should be urged to review its decision in respect of Carmarthenshire’s representation particularly as 17% of the Park’s landmass was within the County.

**RESOLVED that the Council’s representation on the Brecon Beacons National Park Authority be revised in accordance with the decision of Welsh Government and that Councillor Andrew James be appointed as the Council’s sole representative.**

**14. EXECUTIVE BOARD - 3RD FEBRUARY, 2020**

**UNANIMOUSLY RESOLVED that the report of the meeting of the Executive Board held on the 3<sup>rd</sup> February, 2020 be received.**

\_\_\_\_\_  
CHAIR

\_\_\_\_\_  
DATE

## COUNTY COUNCIL

**TUESDAY, 10 MARCH 2020**

**PRESENT:** Councillor K. Madge (Chair)

**Councillors:**

S.M. Allen	L.R. Bowen	K.V. Broom	C.A. Campbell
J.M. Charles	D.M. Cundy	S.A. Curry	C.A. Davies
W.R.A. Davies	T.A.J. Davies	G. Davies	H.L. Davies
I.W. Davies	J.A. Davies	K.Davies	S.L. Davies
E. Dole	D.C. Evans	H.A.L. Evans	L.D. Evans
R.E. Evans	W.T. Evans	A.L. Fox	S.J.G. Gilasbey
C.J. Harris	P. Hughes-Griffiths	A.D. Harries	T.M. Higgins
J.K. Howell	J.D. James	R. James	D.M. Jenkins
G.H. John	C. Jones	B.W. Jones	D. Jones
G.R. Jones	H.I. Jones	A. Lenny	M.J.A. Lewis
K. Lloyd	S. Matthews	A.S.J. McPherson	E. Morgan
D. Nicholas	B.D.J. Phillips	J.G. Prosser	B.A.L. Roberts
E.M.J.G. Schiavone	A.D.T. Speake	L.M. Stephens	B. Thomas
D. Thomas	G.B. Thomas	G. Thomas	J. Tremlett
A.Vaughan Owen	D.T. Williams	D.E. Williams	J.E. Williams

**Also Present:**

W. Walters, Chief Executive  
J. Morgan, Director of Community Services  
C. Moore, Director of Corporate Services  
G. Morgans, Director of Education & Children's Services  
R. Mullen, Director of Environment  
L.R. Jones, Head of Administration and Law  
K. Thomas, Democratic Services Officer

**Chamber, County Hall, Carmarthen, SA31 1JP - 10.00 - 11.00 am**

**1. APOLOGIES FOR ABSENCE**

Apologies for absence were received from Councillors F. Akhtar, J. Edmunds, P. Edwards, P. Hughes, A. James, J. Jenkins, T.J. Jones, A.G. Morgan, S. Najmi, S. Phillips, D. Price, H. Shepardson and E.G. Thomas

**2. DECLARATIONS OF PERSONAL INTERESTS.**

There were no declarations of personal interests.

**3. CHAIR'S ANNOUNCEMENTS.**

The Chair advised that Councillor S Davies was making a collection at the meeting in support of the Llanelli Visual Impaired Bowls Team.

The Leader of the Council provided an update on the coronavirus and the work being undertaken by the Council, public bodies and the Local Resilience Forum in preparing for a potential outbreak within the County.

**4. TO APPROVE AND SIGN AS A CORRECT RECORD THE MINUTES OF THE COUNCIL MEETING HELD ON THE 12TH FEBRUARY, 2020**

**UNANIMOUSLY RESOLVED** that the minutes of the meeting of Council held on the 12<sup>th</sup> February, 2020 be signed as a correct record.

**5. PUBLIC QUESTIONS (NONE RECEIVED).**

The Chair advised that no public questions had been received.

**6. QUESTIONS BY MEMBERS:-**

**6.1. QUESTION BY COUNCILLOR BILL THOMAS TO COUNCILLOR GLYNOG DAVIES - EXECUTIVE BOARD MEMBER FOR EDUCATION AND CHILDREN**

“In July last year, Carmarthenshire County Council unanimously agreed a motion “to identify ways to move to the supply of milk in re-usable glass bottles instead of plastic in our primary schools”.

Ceredigion County Council recently announced that their schools are going to stop using 400,000 plastic bottles.

Will the Executive Board Member for Education and Children publish a detailed plan with timescales for implementing the unanimous instruction from members of this County Council so that empty plastic bottles will not have to be recycled by our primary schools in such large volumes?”

**Response by Councillor Glynog Davies, Executive Board Member for Education and Children:-**

Thank you for the question. It is something that we have referred to many times. It is a matter that we have discussed here in the Chamber. As the question refers specifically to Ceredigion County Council, I think it’s important to state that our current milk contract in Carmarthenshire is a different one to the one that’s in Ceredigion. Both agreements are separate. Our contract is for all the milk which goes to every school. So, every drop of milk that goes to any work within the school it comes under this contract. It’s not just the milk for the pupils only. The milk which at the moment is set in plastic bottles. The contract that we have comes to an end in August 2021. So, basically, August next year. So, we have a year and five months of this contract left, and we are tied into that contract until then. We cannot do anything until then.

Ceredigion did a very interesting piece of work, a task and finish type piece of work, to review the milk provision, the free milk provision. But, we are also aware, as a county that Ceredigion at the moment is looking at milk dispensers and I think we should also look possibly at the new developments which are in this area. Ceredigion are consulting with larger schools to introduce milk from a dispenser. It will be cold milk as it comes from the fridge and I’m sure, the same as myself, if you can remember back to our



school days when we had the milk during the summer term it was in the sun and it was warm. So there is to something to say about receiving milk that is really cold, which is much more acceptable. Now, this milk dispenser, from what I can understand, holds one pergal at a time. So a pergal, basically, it's approximately 24 pints and so therefore can provide 70 – 72 portions of milk, so a third of a pint that each child receives from those small plastic bottles at the moment. Ceredigion have also applied to the Welsh Government for a grant. There are grants available to buy these milk dispensers. It would be a grant from the Circular Economy Capital Fund. Those grants are available.

As a county we are involved with the WRAP Project, and that's the acronym which basically means Waste and Resources Action Programme. We are consulting thoroughly on what's happening and the developments in this area. The project is looking at the single use plastics and that is the controversial plastic, the plastic that is thrown away after only being used once, and we are all of course accepting that that is damaging, it's dangerous plastic. We are also looking at the milk contract in relation to the free school milk. Milk is provided for free. As well as that, we receive documentation and advice on how to apply for grants to implement these changes in future.

This movement that's in existence called WRAP has advised us that delivery options would differ from authority to authority depending for example on the location of the supply chain. A key message in our discussion with WRAP is that plastic isn't necessarily the problem, that is the advice that we are now being given and more focus is needed on whether the plastic is made from recyclable material or not. Further discussions would then be required with our current supplier with a possibility of a case study being carried out here in Carmarthenshire.

The current suppliers have confirmed that they would not be able to provide milk in glass bottles. They have said that clearly to us that it is not possible to do that but, there are other options, as I mentioned, available. I think it is important that we look at every possible option that would be able to meet our aim. I mentioned the milk dispensers and this pergal for larger schools or, for smaller schools 2 litre cartons. They would be possible. I mentioned of course the grants which are available and you can claim from two bodies, milk for children under 5 years old and then separate claims for pupils between 5 and 7 years old. We will have to have a way of managing how much milk is given to each child and there's a maximum of course in relation to the milk that children can receive every day. And, of course, the schools would have to wash the cups or the beakers, the staff would have to do that work. There is a grant for children between 5 and 7 years old. It's an administration grant so, there would be assistance available for the schools and schools who are using the pergals would be able to get some training. They need to clean these dispensers and they need to know how to do that and that is very important in relation to food safety.

We want to liaise further with neighbouring authorities to see how they intend to overcome some of these problems or issues that I did mention and then go back to our supplier to see what is possible within a year and five months. Once this work has been completed, and of course the work with WRAP, and that is very important as well, we'll be able to produce a bespoke plan for Carmarthenshire, a plan after being completed I would be very happy to share with you. But, at the moment, I believe that it is important for us to look at all possible options so that we can reach that aim of getting rid of these single use plastics. Thank you very much.

#### **Supplementary Question by Councillor Bill Thomas:**

It's good to hear the Welsh Government's funding is helping Ceredigion with their plans to implement this and also it's helping this Council, Carmarthenshire, with some of its plans as well so that's good news that Welsh government funding is being used for this purpose. Obviously we can learn from what Ceredigion is doing and how they are getting on with their plans and benefit from their experience. You mentioned the containers would be very important and what containers would be used in the schools and I think it was mentioned in our debate on this Notice of Motion last year and that Trostre steel works have said that they would be able to supply tin cups for the schools which will be re-usable and recyclable material. So, one of the reasons for not moving on seems to be that it's the contract and the supplier and we have a contract until August 2021. That gives us another opportunity. We need to be talking in detail to those suppliers, and thank you for your indulgence Chair. So I'll come to a question. My original question when I submitted it had about three questions in it but I was told I can only submit one question. When will we have this detailed plan so we can go back to the schools because schools, the original eco committee in Ysgol y Felin who raised this with me have now moved on, there's a new committee. I hope it's not the next committee. So when will we have this plan.

**Response by Councillor Glynog Davies, Executive Board Member for Education and Children:-**

Chair, I thought I'd mentioned it clearly enough that the work is taking place now, we are researching into every possible option. We haven't stopped. It's important that we look at all the developments. I am going to say one thing that I did mention previously. Maybe some of you would say well we said glass bottles. I'm going to repeat chair what was mentioned. If we use numerous times and glass is regularly recyclable, but the down side of glass is that it's heavy and fuel usage is significantly increased due to the extra payload on delivery vehicles. We should also note that the sterilisation process using water, energy and chemicals, the end to end carbon footprint of glass versus plastic has not been fully assessed but one study showed that glass performs worse overall. A recent BBC article included a quote from a spokesperson from WRAP for glass to be the better environmental option from a carbon perspective our research shows that any bottle needs to be re-used at least twenty times. In practice, glass bottles survive around eighteen times so, it is important for us to look at all the facts and look at all the developments. But to answer your question Bill, we are working on it now.

**6.2. QUESTION BY COUNCILLOR DOT JONES TO COUNCILLOR GLYNOG DAVIES - EXECUTIVE BOARD MEMBER FOR EDUCATION AND CHILDREN**

“ In August 2019 I received an email stating that the school catchment review would commence in September of last year.

Can an update be given on the work and consultations that has been completed to date please.”

**Response by Councillor Glynog Davies, Executive Board Member for Education and Children:-**

We are all aware that every school has a catchment and I'm sure you, like myself, have asked the question how did this school catchment area come into being. Well, originally, they were formed in order to ensure that there were enough pupils



to support every school, to maintain every school, to make sure that there were children who were living close by that were there to attend that school. Every school has a designated catchment area which it serves and here in Carmarthenshire we use catchment areas as part of our schools admissions system and also to implement our schools transport policy. A full review was undertaken of our catchment areas in 2012 and it's now timely, and I do believe it's appropriate that we update them. In order to do this work an officer has been appointed, work has begun and this officer is going to lead on this work, but it is a very large piece of work, a very complicated piece of work.

In order to review the situation in full this county as we know is a widespread one, a large county geographically and we have lots of schools and we need to look very carefully at the linguistic context. We have religious schools. All of our schools are very different so, we need to look at it very carefully and all the arrangements in place. We need to look at the dynamic nature of the education footprint across the county. As I mentioned, and I'm very pleased to say this, that I did want to see this work taking place, this work has begun, consultations have been held with the school transport department in order to understand the current arrangements and the potential changes that there may be. Also taking place, there is an ongoing geographic analysis of pupil data for all primary and secondary schools. This will help to understand the patterns of school attendance in relation to the current catchment boundaries.

School catchment areas are heavily contingent on the review of our MEP. Now you've often heard me speak of the Modernising Education Programme. It's an important programme for us here in Carmarthenshire, and we've gained a great deal from that programme, and that review is currently happening. The MEP review may influence changes to the education map in our county. This needs to be completed before consultation starts with our schools. We must have, we need, the results of that review. Also, there will be a very thorough consultation on any changes which will be proposed to those catchment areas, plenty of opportunity to give opinions and this will be part of the school admission process and this happens yearly and it happens in January, so it's not going to happen next until January 2021, which is next January, and then will be implemented the following September. I propose that the consultation with schools will not take place until we've completed the MEP review. It's important that the proposals that come up from that are considered. It's important that the content is discussed with us and that will be a general review of school catchments. Thank you.

There was no supplementary question.

## **7. SETTING THE COUNCIL TAX FOR THE FINANCIAL YEAR 2020/21**

Council considered the Director of Corporate Services' report setting out the financial details relevant to the setting of the Council Tax for the 2020/2021 financial year together with the Council Tax amounts in respect of the different Council Tax Valuation Bands, as applicable to each of the individual Community and Town Council areas.

It was noted that the recommendations contained within the report were based on the final settlement details received from the Welsh Government and the precepts

notified to the County Council by the Dyfed Powys Police and Crime Commissioner and the Town and Community Councils.

**RESOLVED that in order for the Council to comply with legislative requirements, the report and recommendations of the Director of Corporate Services on the setting of the Council Tax for the financial year 2020/21 be adopted.**

**8. TO CONSIDER THE RECOMMENDATIONS OF THE EXECUTIVE BOARD IN RESPECT OF THE FOLLOWING ITEMS**

**8.1. PRESS AND MEDIA PROTOCOL**

The Council was informed that the Executive Board, at its meeting held on the 20<sup>th</sup> January, 2020 (minute 7 refers) had considered a report on the adoption of an updated Press and Media Protocol to replace the existing protocol adopted by Council in June, 2015. The new Protocol reflected changes in the media environment to assist the Marketing and Media Team to manage press and media communications and relationships on the Council's behalf whilst also providing guidance to elected members and Staff.

Reference was made to the section within the report relating to requests for photography and filming on council premises. The Chief Executive confirmed the wording would be amended to clarify the taking of photographs on council land by local members as part of their role

**RESOLVED that the recommendation of the Executive Board be accepted and the Press and Media Protocol be adopted**

**8.2. (DRAFT) STRATEGIC EQUALITY PLAN 2020-2024**

The Council was informed that the Executive Board, at its meeting held on the 3<sup>rd</sup> February, 2020 (minute 10 refers) had considered a Draft Carmarthenshire County Council Strategic Equality Plan 2020-2024 produced in accordance with the requirements of the Equality Act 2010 that replaced the separate duties on race, disabilities and gender equality. The Council noted that the General Duty of the Act aimed to ensure public authorities and those carrying out a public function considered how they could positively contribute to a fairer society through advancing equality and good relations in their day-to-day activities

**UNANIMOUSLY RESOLVED that the following recommendations of the Executive Board be accepted:-**

**“The (Draft) Strategic Equality Plan for implementation from April 2020 be approved;**

**The (Draft) Strategic Equality Objectives and the development of a detailed action plan to underpin those objectives be approved”**

**9. TO RECEIVE THE REPORT OF THE MEETING OF THE EXECUTIVE BOARD HELD ON THE 24TH FEBRUARY 2020**

**UNANIMOUSLY RESOLVED** that the report of the meeting of the Executive Board held on the 24<sup>th</sup> February, 2020 be received.

\_\_\_\_\_  
**CHAIR**

\_\_\_\_\_  
**DATE**

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## COUNTY COUNCIL

**WEDNESDAY, 10 JUNE 2020**

**PRESENT:** Councillor K. Madge (Chair)

**Councillors:**

F. Akhtar	S.M. Allen	L.R. Bowen	K.V. Broom
C.A. Campbell	J.M. Charles	D.M. Cundy	S.A. Curry
C.A. Davies	W.R.A. Davies	T.A.J. Davies	G. Davies
H.L. Davies	I.W. Davies	J.A. Davies	K.Davies
S.L. Davies	E. Dole	J.S. Edmunds	P.M. Edwards
D.C. Evans	H.A.L. Evans	L.D. Evans	R.E. Evans
W.T. Evans	A.L. Fox	S.J.G. Gilasbey	C.J. Harris
P. Hughes-Griffiths	A.D. Harries	J.K. Howell	P.M. Hughes
A. James	R. James	D.M. Jenkins	J.P. Jenkins
G.H. John	C. Jones	B.W. Jones	D. Jones
G.R. Jones	H.I. Jones	A. Lenny	M.J.A. Lewis
K. Lloyd	S. Matthews	A.S.J. McPherson	E. Morgan
A.G. Morgan	D. Nicholas	B.D.J. Phillips	D. Price
J.G. Prosser	B.A.L. Roberts	E.M.J.G. Schiavone	H.B. Shepardson
A.D.T. Speake	L.M. Stephens	B. Thomas	D. Thomas
E.G. Thomas	G. Thomas	J. Tremlett	A.Vaughan Owen
D.T. Williams	D.E. Williams	J.E. Williams	

**Also Present:**

- W. Walters, Chief Executive
- J. Morgan, Director of Community Services
- C. Moore, Director of Corporate Services
- G. Morgans, Director of Education & Children's Services
- R. Mullen, Director of Environment
- L.R. Jones, Head of Administration and Law
- P.R. Thomas, Assistant Chief Executive (People Management & Performance)
- G. Morgan, Head of Democratic Services
- K. Thomas, Democratic Services Officer

**Virtual Meeting - . - 10.00 am - 12.40 pm**

**1. APOLOGIES FOR ABSENCE**

Apologies for absence were received from Councillors T. Higgins, J. James, T.J. Jones, S. Najmi, S. Phillips and G.B. Thomas

**2. DECLARATIONS OF PERSONAL INTERESTS.**

There were no declarations of personal interest.

**3. PERSONAL MATTERS / OUTGOING CHAIR'S ANNOUNCEMENTS**

- The Chair paid tribute to Mr David Tom Davies OBE, MM following his recent bereavement. Mr Davies had been the Chair of the former Dyfed County Council from 1981-82 and the founding Chair of the current Carmarthenshire County Council from 1995-97 and had worked tirelessly for the county and the local community in and around Dryslwyn. He was one of the founder members of the National Botanical Garden of Wales and played a large part in establishing Aberglasney Gardens and it was only right that in 2018, on the occasion of his 100<sup>th</sup> birthday, he had been granted the Honorary Freedom of Carmarthenshire.  
Mr Davies also saw service in World War 2 as a member of the Royal Artillery and spent three years as a prisoner of war. In 2016, he had published his story in a book.
- The Chair referred to the current difficult times faced by many due to the Covid-19 pandemic and expressed his thoughts to those families who had sadly been affected by the outbreak;
- The Chair expressed his appreciation to all the Council's staff and all the other public and health services for their hard work during the pandemic in ensuring public services within Carmarthenshire could still provide as many services as possible and in helping the vulnerable in the community. He paid special thanks to the countless volunteers who had helped in the crisis over the previous three months;
- The Chair extended his congratulations to the following residents within the County who had recently celebrated their 100<sup>th</sup> Birthday:-

Ethel Wheeler –Capel Hendre

Joan Davies – Betws

Douglas Davies – Llanell-

The Retiring Chair, reflected on his year in office which, over the previous three months had been different to the norm due to the coronavirus. He expressed his appreciation to the many people who had volunteered to help the vulnerable in the community during the pandemic. He also referred to the many people he had met during his year of office and to the work they did for the communities they served and announced that a new "Civic Appreciation of Thanks Award" had been created to recognise their work. The names of the 2019-20 recipients would be published that morning, with the recipients receiving their awards later in the year. He also expressed his appreciation to those who had contributed to his charity raising £3,925 for food banks within Ammanford, Carmarthen and Llanelli.

He thanked his Vice Chairman, Councillor Ieuan Davies, and Councillor Davies' Consort, Mrs Sue Allen, for their support and company during his term of office and wished Councillor Davies well in his year of office. He also thanked his Chaplain Reverend Caroline Jones for her spiritual support and guidance throughout the year.

He expressed his gratitude to the Chief Executive for her advice and professional guidance, and to the Directors and staff of the authority who had supported the work of the Chair, including the Democratic Services Unit, his driver Jeff Jones, and, in particular, Eira Evans for her professional and personal support, arranging his events and making sure everything always ran smoothly.

He also referred to the many people who had attended his events and those he'd attended for their support and to members of the Council for their support.

Finally, he paid tribute to his consort, Mrs. Catrin Madge, who had been at his side and guided him for the last 12 months and thanked her formally for her support. He considered that it had been an honour and a privilege to serve as the Council's Chair and thanked all for giving him the opportunity.

#### **4. ELECTION OF CHAIR OF THE COUNCIL FOR THE 2020-21 MUNICIPAL YEAR**

**It was moved by Councillor K. Madge and seconded by Councillor L.M. Stephens and UNANIMOUSLY RESOLVED that Councillor I.W. Davies be elected Chair of Carmarthenshire County Council for the 2020/21 Municipal Year.**

Councillor K. Madge congratulated Councillor Davies on his election and advised that whilst, due to social distancing rules, he was unable to physically invest Councillor Davies with his Chain of Office, arrangements had been made for it to be delivered to his home.

Councillor Ieuan Davies made his declaration of acceptance of office and was invested with the Chain of Office.

Councillor Davies expressed his gratitude to all Councillors for their support in appointing him as Chair of Carmarthenshire County Council and that he was looking forward to his year in office representing the council and meeting people when the current lockdown restrictions were eased. Councillor Davies also paid tribute to the retiring Chair, Councillor K. Madge

Tributes were also paid to the Retiring Chair by the Leaders of the Plaid Cymru, Independent, Labour and New Independent Groups for the excellent service he had given to the Council during his year of office.

The Chair thanked members for all their kind words and advised that in view of social distancing rules, his Consort (Mrs Sue Allen) would not be invested with her Chain of Office that day. That would hopefully be arranged for the ceremonial function later in the year.

The Chief Executive also paid tribute on behalf of the Authority's staff to the retiring Chair and his consort (Councillor Kevin Madge and Mrs Catrin Madge) who had fulfilled his role with great professionalism and been very active and supportive of the work of the Council. She congratulated the newly elected Chair and Consort (Councillor Ieuan Davies and Mrs Sue Allen) on their appointment. She also referred to the nature of the AGM this year as being one of many new experiences, and advised that whilst for the first time, those who would normally be in the Chamber today to wish the Chair well were unable to do so they had kindly put their best wishes together on video.

The Council viewed the video.

The Chief Executive wished the Chair a very happy and successful year in office.

## **5. ELECTION OF VICE CHAIR OF THE COUNCIL FOR THE 2020-21 MUNICIPAL YEAR**

**It was moved by Councillor W.T. Evans, seconded by Councillor G. Thomas and UNANIMOUSLY RESOLVED that Councillor Eirwyn Williams be elected Vice-Chair of Carmarthenshire County Council for the 2020/21 Municipal Year.**

The Chair congratulated the Vice Chair on his appointment and advised that due to the current social distancing rules, arrangements had been made for Councillor Williams' Chain of Office to be delivered to his home.

The Vice-Chair expressed his appreciation to the Council on his appointment and made his declaration of acceptance of office.

The Chair advised that due to the social distancing rules, the Vice Chair's Consort (Mrs Joyce Williams) would not be invested with her Chain of Office that Day. That would hopefully be undertaken later in the year.

## **6. TO RECEIVE THE LEADER OF THE COUNCIL'S ANNUAL REPORT 2019-20**

The Leader presented his fifth Annual Report to the Council covering the period 2019/20 and looked back upon the achievements of the Council over the previous 12 months (copies of which had been provided to Councillors in advance of the meeting). He advised that whilst it was not his intention to go through the report in detail, he would like to highlight the following Council's achievements over the year (including a video presentation) prior to commenting on the impact of the Covid 19 pandemic on the county and the scale and measure of the Council's response.

The Council viewed the video.

The Leader reminded the Council that only a year ago it had hosted the final stage of the OVO Women's Tour of Britain when thousands of people had lined the county's streets to cheer the cyclists on their 79 mile race through Carmarthenshire. Hosting the race had provided the opportunity to showcase the county's beautiful scenery and the warm welcome that awaited visitors to the county. The Council had also set aside £20,000 for its Events Support Scheme for organisations and community groups to hold their own events. Those included Carmarthen's St David's Week, Llandovery Sheep Festival, Llanelli Pride and Gwyl Canol Dre.

He considered one of the Council's proudest achievements over the year had been the "Moving Carmarthenshire Forward" Report. Over 60% of the county's population lived in its rural areas and the council had a dedicated portfolio to represent the needs of those people. The Ten Rural Towns Initiative outlined the long-term strategic vision for the regeneration of the county's rural communities by securing economic, cultural, social and environmental sustainability for those



towns i.e. Llandovery, St Clears, Whitland, Newcastle Emlyn, Laugharne, Cwmamman, Llanybydder, Kidwelly, Llandeilo and Cross Hands. However, in light of Covid-19, it was realised, more than ever, that the need to look locally, and in supporting and developing that economy the county would become even more resilient and robust.

The Council's plans to increase its housing stock across the County would also support the rural strategy. Over the next five years the council had committed to invest £150m to build 900 new council homes across the county, with many of those being in the rural areas where there had been a shortage of housing for many years. Work was also underway in Pembrey and Bryn, Llanelli to build 300 homes before 2022 and, although, work on those had been halted at the start of the lockdown, the sites were beginning to re-open and work had restarted.

The Authority had renewed its commitment to climate change, becoming the first local authority in Wales to publish a climate change action plan outlining how it would be net zero carbon by 2030. The Plan was ambitious and the Council was committed to its success. A more energy- efficient vehicle fleet was being purchased and the council was collaborating with other bodies to deliver wider change and renewable energy generation on council owned land. To date, more than £2m had been invested in over 200 energy efficient projects, saving more than £7m in running costs and 41,000 tonnes of CO<sub>2</sub> over the projects' lifetime. That was an exciting plan which would evolve to meet the challenges of the future for the benefit of our, and future, generations.

The Council was making significant investments in other areas too. It intended to invest almost £255 million in capital projects, with a focus on boosting the economy, creating jobs and enhancing the quality of life of our residents. The programme included a further commitment of £86 million to build and transform even more schools as part of our 21<sup>st</sup> Century Schools programme. Improvements would also be made to our roads and bridges, and much needed changes would be made as promised for a 'changing places' facility for disabled residents and visitors to Llanelli.

In August last year, the Council celebrated the success of A-level and GCSE students across the county and saw marked improvements with pass rates again above the national average. Almost 71 per cent of pupils achieved grade C or higher, with 21.3 per cent awarded the top A-A\* grades – both higher than the average for Wales. There was strong progress in Welsh and English language skills and pass rates in the sciences also continued to improve and surpass the national averages.

The Leader advised that whilst it was difficult to refer to all the council's achievements, the annual report would provide a fuller understanding of its successes this year and its plans for the future.

The Leader thereupon referred to these extraordinary times and the way over the past few weeks where we had pulled together in ways that he considered had astounded everyone. Back in March, the authority had offered the NHS some of its sites in Carmarthenshire for use as field hospitals – the NHS was at a point where it feared there weren't enough beds to cater for the projected scale of the pandemic. The local community had been asked for help to convert four venues

into 600 emergency beds to deal with the expected pressures and within 24 hours we received more than 350 responses. Over a period of 21 days, volunteers, builders and contractors had come together to transform a rugby stadium, the Selwyn Samuel Centre and Carmarthen and Llanelli Leisure Centre into field hospitals.

The Leader paid tribute to all community groups, food banks, town and community councils, and individuals throughout the county who had volunteered during this period. He expressed his heartfelt thanks to those who had offered practical, emotional help or given of their time to support others, and to those workers who had continued to go to work and kept going.

The Leader also took the opportunity to draw attention to Sir Garedig, which had recently been established to connect people in need with those who could provide help. Sir Garedig's intention had been to be a focal point for community activities and to encourage people to share stories of kindness – helping to bring people together where necessary. Whilst it was a new message, it had never been a secret that Carmarthenshire was a kind county (Sir Garedig).

The Leader referred to the commitment of the Council's staff and their terrific response to the covid-19 pandemic had been humbling. They had worked tirelessly to ensure that residents, communities, organisations and businesses were kept safe and supported. The authority really must pay tribute to the front line staff who had shown great courage in continuing their work, often putting others before themselves and their families. Also, to those who had moved from their day-to-day work to cover other areas of front line service – those who usually worked in offices and were now working in care homes, driving buses, and delivering food. Their commitment and willingness to support others was truly inspiring and he thanked, in particular, those who worked to secure enough PPE for those who needed it, ensuring the safety of staff at all times.

He thanked Education and Children Services for their hard work and ability to adapt so quickly to the changing needs of our pupils and children. Whilst the authority had initially been forced to close its schools several of them reopened, literally a few days later, as hubs providing childcare for those needing it. He expressed the authority's unstinting support as the Department started to reopen school sites over the coming weeks.

He also thanked those involved in creating, supporting or working in food hubs who had worked hard to support the most vulnerable members of the community.

He made particular mention of the Council's Media and Marketing Team and I.T. Division who'd worked closely together to deliver key messages to our residents in order to keep them safe.

He expressed his thanks to each and every officer and councillor for their work during the pandemic, and to the chief executive for her direction and commitment as always.

The Leader expressed the hope that as we entered the recovery phase, people would quickly come to understand what normal meant again for us and that whilst

there may be some difficult times ahead, the county was resilient and innovative and the Council would continue to do its best for all of its residents, in the way it had always done.

In concluding, the Leader expressed the view that all could agree it had been an extraordinary year, a year that had brought people closer together and thanked everyone for their support.

The Leaders of the Labour Group, New Independent Group and the Independent Group were afforded the opportunity of commenting on the Leader's report. They all expressed their thanks and appreciation to all those who had provided help and assistance during the Covid pandemic.

**UNANIMOUSLY RESOLVED that the Leaders 2019/20 Annual Report be noted.**

**7. TO CONFIRM APPOINTMENT OF MEMBERS TO COMMITTEES OF THE COUNCIL FOR THE 2020-21 MUNICIPAL YEAR**

The Council considered the composition of Regulatory, Scrutiny, Other Committees and Panels and the membership of those committees. The Leaders of the Political Groups confirmed that there were no additional membership changes.

It was duly moved and seconded and

**UNANIMOUSLY RESOLVED that the composition and membership of Regulatory, Scrutiny, Other Committees and Panels for the 2020/21 Municipal Year, as detailed within the report be approved.**

**8. TO CONSIDER NOMINATIONS RECEIVED AND TO ELECT CHAIRS AND VICE CHAIRS FOR THE COMMITTEES / PANELS OF THE COUNCIL FOR THE 2020-21 MUNICIPAL YEAR**

The Council, in accordance with Corporate Procedure Rule CPR 17.6, considered nominations which had been received for the appointment of Chairs and Vice Chairs of Committees for the 2020/21 Municipal Year.

It was duly moved and seconded and

**RESOLVED that the following appointments to Chairs and Vice Chairs of Regulatory, Scrutiny, Other Committees and Panels be made for the 2020/21 Municipal Year:-**

<b><u>COMMITTEE / PANEL</u></b>	<b><u>CHAIR</u></b>	<b><u>VICE CHAIR</u></b>
Community Scrutiny Committee	To be appointed by the Committee	Councillor G.B. Thomas
Education & Children Scrutiny Committee	Councillor D. Price	Councillor E.G. Thomas
Environmental & Public Protection Scrutiny Committee	Councillor J.D. James	Councillor A. Vaughan Owen
Policy & Resources Scrutiny Committee	Councillor A.G. Morgan	Councillor G. John
Social Care & Health Scrutiny Committee	Councillor G. Thomas	Councillor I.W. Davies
Appeals Committee	Councillor J.K. Howell	Councillor S.M. Allen
Appointments Committee A - Directors	Councillor E. Dole	Councillor L.M. Stephens
Appointments Committee B - Heads of Service	Councillor L.M. Stephens	Councillor E. Dole
Democratic Services Committee	Councillor S. Curry	Councillor W.T. Evans
Dyfed Pension Fund Committee	Councillor D.E. Williams	Not required
Licensing Committee	Councillor E.G. Thomas	Councillor D.E. Williams
Member Appointments Committee	Councillor A.D.T. Speake	Councillor W.R.A. Davies
Planning Committee	Councillor A. Lenny	Councillor H.I. Jones
Housing Review Panel	Councillor G.B. Thomas	Councillor I.W. Davies

(NOTE: Separate votes were taken for the contested seats for Vice Chair of the Licensing Committee and Vice Chair of the Education and Children Scrutiny Committee)

## **9. ANNUAL REVIEW OF THE COUNCIL'S CONSTITUTION**

The Council was reminded of the requirement for it to review its Constitution on an annual basis and that as part of that process it had established a Constitutional Review Working Group to present any recommended changes.

It was reported that whilst no legislative changes had been introduced during 2019/20 requiring changes to be made to the Council's Constitution, there was a

need for Part 6.1 thereof to be amended to reflect the Independent Remuneration Panel for Wales' (IRPW) prescribed amounts to be paid to Councillors for 2020/21, as detailed within the report.

With regard to the work of the Constitutional Review Working Group, it was reported that whilst it had been tasked with reviewing and recommending any changes to the constitution that had not proved to be possible following the suspension of all Council meetings in response to the Covid 19 pandemic. It was therefore proposed that the Annual Review be deferred to a future Council Meeting.

## **RESOLVED**

- 9.1 That the Councillors' and Co-opted Members' Salaries and Allowances Scheme for 2020/21, as detailed within the report, be adopted;**
- 9.2 That any necessary membership changes contained within the Constitution arising from decisions made earlier in the meeting be approved;**
- 9.3 That in view of the Covid-19 pandemic, the full annual review of the Constitution be deferred to a future meeting of the Council.**

\_\_\_\_\_  
**CHAIR**

\_\_\_\_\_  
**DATE**

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## COUNTY COUNCIL 8<sup>TH</sup> JULY 2020

### **Subject:** Homes as Power Stations

**Purpose:** To seek Members approval of the Swansea Bay City Deal ‘Homes as Power Stations’ regional business case being led by Neath Port Talbot Council (enclosed at Appendix 1 of this report), and to authorise its formal submission to the Portfolio Management Office in accordance with the City Deal Implementation Plan to secure City Deal funding approval.

### **Executive Board Recommendations:**

1. the Homes as Power Stations Business Case, detailed in Appendix 1 to the report, be endorsed and its formal submission to the Portfolio Management Office be authorised in accordance with the City Deal Implementation Plan to secure City Deal Funding approval;
2. delegated authority be granted to the Head of Regeneration, in consultation with the Leader and relevant Executive Board Members, to approve any amendments to the business case following approval in light of any amendments that may be required by the Joint Committee of the Swansea Bay City Deal;
3. the Head of Regeneration, in consultation with the Director of Corporate Services, the Leader and any relevant Executive Board Members be authorised to enter into any grant agreements or associated documentation that might be necessary to draw down funding from the UK/Welsh Government or the Accountable Body of the Swansea Bay City Deal.

### **Reasons:**

To enable Neath Port Talbot Council to formally submit the regional Homes as Power Stations business case to the Portfolio Management Office in accordance with the City Deal project approval process.

Relevant scrutiny committee to be consulted NO

Exec Board Decision Required YES

Council Decision Required YES

EXECUTIVE BOARD MEMBER PORTFOLIO HOLDER:- Cllr. Emlyn Dole

Directorate: Chief Executive	Designations:	
Name of Head of Service: Jason Jones	Head of Regeneration	01267 242336 <a href="mailto:jajones@sirgar.gov.uk">jajones@sirgar.gov.uk</a> 01267 224902
Report Author: Helen Morgan Lisa Willis	Economic Development Manager European and Strategic Funding Manager (Neath Port Talbot Council)	<a href="mailto:hlmorgan@sirgar.gov.uk">hlmorgan@sirgar.gov.uk</a> 01639 686074 <a href="mailto:L.Willis@npt.gov.uk">L.Willis@npt.gov.uk</a>



# EXECUTIVE SUMMARY

8<sup>th</sup> July 2020

**SUBJECT: Homes as Power Stations**

## 1. BRIEF SUMMARY OF PURPOSE OF REPORT.

The Homes as Power Stations (HAPS) programme is a pioneering programme to facilitate the adoption of energy efficiency in new build and retrofit homes across the region i.e. the HAPS approach.

The aim of the programme is to demonstrate the viability and benefits of energy efficient homes, scaling up from the pilot development at Hafod, Neath to mainstream the concept in the public and private sectors.

The overarching aim of the programme and business plan is to 'prove' the HAPS concept within public sector led developments in terms of both new-build and retrofitting existing properties. This experience and knowledge will be used to inform future public sector developments across the South West Wales region, and indeed across Wales, and, having 'proved the concept' to target its use in private sector developments.

The City Deal funding will fund a programme team that will help to develop the regional supply chain, administer a regional financial incentives fund, and facilitate a comprehensive monitoring and evaluation programme. It will also undertake marketing / dissemination of the HAPS approach.

### Background

The Swansea Bay City Deal is a £1.3bn investment in eleven major projects across the Swansea Bay City Region which is made up of Carmarthenshire, Neath Port Talbot, Pembrokeshire and Swansea.

The City Deal is being funded, subject to the approval of project business cases, by the UK Government, the Welsh Government, the public sector and the private sector.

City Deal projects are based on key themes including economic acceleration, life science and well-being, and energy. Each project will be supported by world class digital infrastructure and a skills and talent initiative that will give local people a pathway to access the jobs that will be created

Homes as Power Stations is one of the projects included in the City Deal Heads of Terms document. It is a regional project, led by Neath Port Talbot and will deliver across all four City Deal local authority areas.

## **Project description**

The Homes as Power Stations (HAPS) programme is a pioneering programme to facilitate the adoption of energy efficiency in new build and retrofit homes across the region i.e. the HAPS approach. The aim of the programme is to demonstrate the viability and benefits of energy efficient homes, scaling up from the pilot development at Hafod, Neath to mainstream the concept in the public and private sectors.

## **The Business Plan**

A business plan for the HAPS programme has been prepared and is enclosed at Appendix 1 for Members' consideration.

## **Investment objectives**

The investment objectives of the HAPS programme include:

- Future proofing over 10,000 properties in the region to increase affordable warmth and reduce fuel poverty;
- Improving health and wellbeing
- Develop standards and specifications which can be replicated
- Develop a skilled regional supply chain
- Coordinate energy efficiency in housing funding sources

## **Outputs**

It is envisaged in the business plan that the following outputs will be obtained

- Jobs created – 19 construction jobs per £1m invested
- Skills / training opportunities created
- Carbon reduction targets
- Regional supply chain in the renewables sector

## **Strategic alignment**

The Homes as Power Stations programme is aligned to key Welsh and UK Government strategies and policy direction including: Economic Action Plan; A Low Carbon Wales; Well-being of Future Generations Act; National Development Framework; and Industrial Strategy.

The Homes as Power Stations programme is also aligned to a number of other City Deal projects including the Skills and Talent initiative, the Digital Infrastructure Project and the Supporting Innovation & Low Carbon Growth programme of projects, along with the Active Building Centre at Swansea University which is the UK centre of excellence for transforming construction.

## Key milestones

The following key milestones are set out in the Business Plan

- Year 1

- To establish a programme team
- Procure an independent organisation to monitor and evaluate the programme
- Integrate existing and related project activity
- Agree targets for new build and retrofit developments

- Years 2 to 3

- Continue facilitating the adoption of the HAPS approach for new build and retrofits
- Proving the HAPS concept by introducing a range of technologies in to new-build and existing residential properties, and monitoring and evaluating their impact on carbon reduction
- Developing private sector engagement by proving the HAPS concept in public sector led residential schemes to minimise risk.

- Years 4 to 5

- Continue facilitating the adoption of the HAPS approach for new build and retrofits
- Proving the HAPS concept by introducing a range of technologies in to new-build and existing residential properties, and monitoring and evaluating their impact on carbon reduction
- Developing private sector engagement by proving the Haps concept in public sector led residential schemes to minimise risk.
- Developing specifications and standards based on lessons learned through monitoring and evaluation to disseminate

## Current and proposed regional activity

There are a number of 'HAPS' approach developments in progress and in the pipeline, including:

- Carmarthenshire

A new build 32 unit development in Burry Port using the Pentre Solar energy efficient model of construction. Maximising solar gain with a SAP level of 104 and an air tightness of 0.9m<sup>3</sup>/hr Passive house levels thermal insulation. The integrated PV panels will generate at least 7,000KwH of energy per year. Battery storage will store up to 150KwH of unused electricity per day. 80% of the space heating requirements of the homes will be supplied from solar energy.

- Neath

The HAPS pathfinder project at Hafod, Neath is complete and tenants are due to move in. The technologies will now be evaluated by monitoring their use throughout the year by a

range of different occupiers. This process will help to deliver cost effective energy efficient residential schemes

- Pembrokeshire

A number of planned council owned new build developments with designs to go beyond Part L of Building Regulations, in terms of energy efficiency with a requirement to achieve an EPC rating of A, including PV solar, over insulation, and battery storage.

- Swansea

Six council – owned bungalows in Craigcefnparc, Swansea have been retrofitted with innovative energy saving equipment to help power the homes and keep them warm.

<b>DETAILED REPORT ATTACHED?</b>	<b>YES</b>
----------------------------------	------------

## IMPLICATIONS

I confirm that other than those implications which have been agreed with the appropriate Directors / Heads of Service and are referred to in detail below, there are no other implications associated with this report :

Signed: Jason Jones, Head of Regeneration

Policy, Crime & Disorder and Equalities	Legal	Finance	ICT	Risk Management Issues	Staffing Implications	Physical Assets
<b>YES</b>	<b>YES</b>	<b>YES</b>	<b>NONE</b>	<b>NONE</b>	<b>NONE</b>	<b>YES</b>

### Policy, Crime & Disorder and Equalities

A first stage impact assessment has been undertaken to assist Neath Port Talbot Council in discharging its legislative duties (under the Equality Act 2010, the Welsh Language Standards (No.1) Regulations 2015, the Well-being of Future Generations (Wales) Act 2015 and the Environment (Wales) Act 2016. The first stage assessment has indicated that a more in-depth assessment is not required at this stage.

### Legal

The Joint Working Agreement between the participants of the Swansea Bay City Deal requires (at clause 12.3) all councils in whose area the project shall take place to approve the submission of the business case to the Joint Committee before it can ultimately be forwarded on to the UK and Welsh Government. Each participant council will be taking a report of this kind to their respective

## Finance

The financial profile is detailed below. It should be noted that the costs are evidence-based projections and will be refined during programme delivery. The City Deal 'ask' is £15 million to fund:

- Programme Team
- Regional financial incentives fund
- Regional supply chain development fund
- Marketing / dissemination
- Monitoring and evaluation

A breakdown of payments is set out below:

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
<b>City Deal</b>	£2,000,000	£4,000,000	£5,000,000	£3,750,000	£250,000	£15,000,000
<b>Private</b>	£23,075,000	£47,675,000	£73,050,000	£102,600,000	£129,500,000	£375,900,000
<b>Other programmes</b>	£6,425,000	£14,075,000	£22,200,000	£31,400,000	£40,500,000	£114,600,000
<b>Total</b>	<b>£31,500,000</b>	<b>£65,750,000</b>	<b>£100,250,000</b>	<b>£137,750,000</b>	<b>£170,250,000</b>	<b>£505,500,000</b>

## Risk Management Issues

There are no risk management issues associated with this report. The Homes as Power Stations business case includes a 'Main Programme Risks' section in Part 3.3 of the Strategic Case.

## Physical Assets

The HAPS programme team will assess the region's housing stock in order to determine energy efficient technologies.

# CONSULTATIONS

I confirm that the appropriate consultations have taken in place and the outcomes are as detailed below

Signed: Jason Jones, Head of Regeneration

## 1. Scrutiny Committee

n/a

## 2. Local Member(s)

n/a

## 3. Community / Town Council

n/a

## 4. Relevant Partners

Consultations have taken place with the following Local Authorities:

- Neath Port Talbot
- Swansea
- Pembrokeshire

The Homes as Power Stations Full Business Case is currently going through the political process of each of these local authorities

The Executive Board member has been consulted.

## 5. Staff Side Representatives and other Organisations

n/a

## Section 100D Local Government Act, 1972 – Access to Information

List of Background Papers used in the preparation of this report:

**THERE ARE NONE**

Title of Document	File Ref No.	Locations that the papers are available for public inspection
N/A		

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# FULL BUSINESS CASE

## Swansea Bay City Deal: The Internet Coast

### Homes as Power Stations Programme



**Version 3.0**  
**March 2020**



## **Confidentiality Statement**

Information in this document must be kept confidential and in accordance with the rules of disclosure.

This document is uncontrolled if printed.

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## Distribution List

Organisation	Position	Name
Value People	Director	Stefan Sanchez
Homes as Power Stations	SRO	Gareth Nutt Nicola Pearce
City & County Swansea		Martin Nicholls
Carmarthenshire County Council		Wendy Walters
Pembrokeshire County Council		Steven Jones
Cardiff University, WSA		Phil Jones

## Revision History

Date	Version	Modified by	Changes Made, review history
29.06.2018	0.1	Bill Harkins - Value People	First draft
13.07.2018	1.0	Lisa Willis – NPTCBC Stefan Sanchez & Bill Harkins - Value People	Updates to CC and FC after review
07.08.2018	1.0	Lisa Willis	Regional input
Feb 2019	FBC 1.0	Lisa Willis	OBC to FBC
Nov 2019	FBC 2.0	Lisa Willis	Additional information required by policy workshop
March 2020	FBC 3.0	Lisa Willis	ESB comments

## Document Sign Off

Date	Version	Signed off by	Comments
07.08.2018	1.0	Gareth Nutt	Incorporated regional partner comments
Feb 2019	FBC 1.0	Gareth Nutt	OBC to FBC

Nov 2019	FBC 2.0	Gareth Nutt	Additional information required by policy workshop
March 2020	FBC 3.0		ESB workshop comments - comments

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<b>Acronyms</b>	<b>Description</b>
HAPS	Homes as Power Stations
SBCR	Swansea Bay City Region
SBCD	Swansea Bay City Deal
‘the partners’	The local authority partners comprising the Swansea Bay City Region: Neath Port Talbot CBC, City and County of Swansea, Carmarthenshire County Council and Pembrokeshire County Council

## Introduction

The Swansea Bay City Region 'Internet Coast' deal will establish the Homes as Power Stations (HAPS) programme, led by Neath Port Talbot County Borough Council, on behalf of the four local authority partners in the Swansea Bay City Region programme area: Neath Port Talbot County Borough Council, City and County of Swansea, Carmarthenshire County Council and Pembrokeshire County Council. Swansea University is a strategic partner through the Active Building Centre<sup>1</sup> and SPECIFIC.<sup>2</sup>

The Homes as Power Stations programme has been developed in response to a number of drivers:

- UK and Welsh Government policy to tackle climate change and meeting carbon emission reduction targets;
- The need to deliver low carbon, energy efficient homes to reduce fuel poverty and its impact on health and wellbeing;
- Energy efficiency and demand side management is needed to reduce energy costs and provide affordable warmth for housing.

The HAPS programme is a pioneering programme to facilitate the adoption of the HAPS approach to integrate energy efficient design and renewable technologies into the design of new build homes and retrofit programmes carried out by the public, private and third sectors. The programme aims to encourage the HAPS approach to become mainstream in new build design and retrofit programmes.

The programme will target both new build developments and the retrofit of existing buildings. The programme aims to promote the benefits of energy positive homes, initially through the public-sector housing stock and after proving the process and financial measures, target rollout to private sector landlords and owner-occupiers. Energy retrofits will be linked to other housing improvement programmes to optimise efficiency of delivery. There will also be a focus on supply chain development, skills development, an education / dissemination programme and a financial incentive scheme.

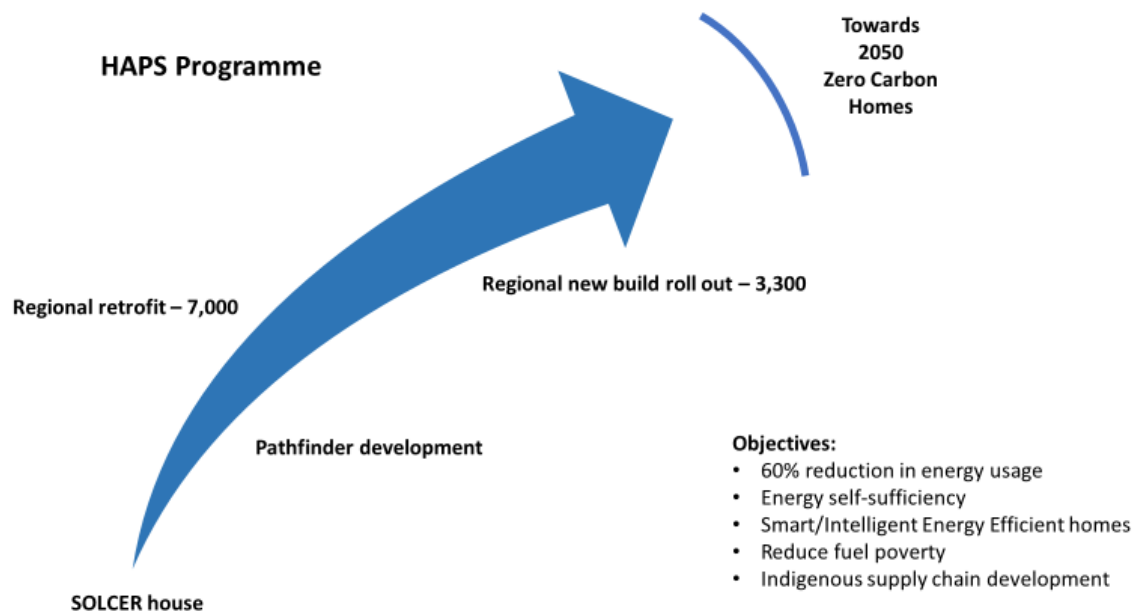
The Homes as Power Stations programme is a regional activity and aims to 'prove' the HAPS concept in the public sector at relatively small scale with the intention of scaling up activity across the region and sectors as shown in the following Figure:

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<sup>1</sup> <https://www.activebuildingcentre.com/>

<sup>2</sup> <http://www.specific.eu.com/about>





This Full Business Case (FBC) is structured in accordance with HM Treasury’s revised Green Book<sup>3</sup> and the Better Business Cases guidance, organised around five cases designed to systematically demonstrate the investment proposal:

- Is supported by a compelling case for change – the **Strategic Case**
- Optimises value for money – the **Economic Case**
- Is commercially viable – the **Commercial Case**
- Is financially affordable – the **Financial Case**
- Is achievable – the **Management Case**

This FBC confirms the indicative funding envelope of £15 million of Swansea Bay City Deal investment to deliver the programme.

Formal approval of this FBC will enable programme definition to commence to prepare for the Homes as Power Stations programme and the FBC describes the outline programme management arrangements.

<sup>3</sup> The Green Book: Central Government Guidance on Appraisal and Evaluation:  
<https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

## Executive summary

### Strategic Case

The primary and overarching strategic driver for the HAPS programme is the Swansea Bay city Deal 'Internet Coast' investment programme which was signed in March 2017 by the UK Government, Welsh Government, and the four local authorities of the Swansea Bay City Region. The 'Internet of Energy' is a key theme within the Swansea Bay City Deal Internet Coast Investment Programme. This commitment is underpinned by the availability of funding and a range of national, regional and local strategies which confirm the strength of strategic drive for action in this area, in particular:

- The need to meet the UK's clean energy challenges with a focus on the need to address climate change and carbon emissions linked to housing to deliver the decarbonisation agenda
- The need for clean, affordable and secure energy
- Addressing climate change through delivering carbon neutral alternatives, in line with the decarbonisation agenda
- Improving health and well-being
- Tackling fuel poverty
- Ensuring people have the necessary skills which reflect the broad nature of the renewables sector

In response to above drivers, it is proposed that the HAPS programme will:

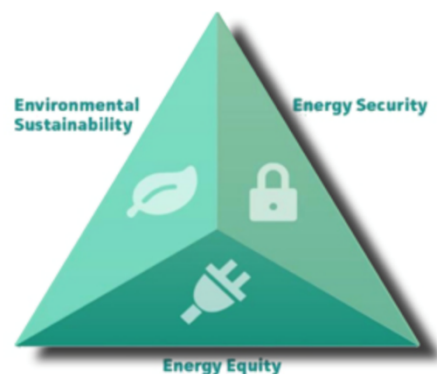
- Facilitate the adoption of the HAPS approach in new house build developments and housing retrofit programmes which integrates new technologies and design features to allow buildings to generate, store and release energy;
- Develop and seek to attract new sector supply chains incorporating leading research and high value manufacturing and construction operations;
- Help to generate sustainable and affordable homes and address fuel poverty and improve health and wellbeing;
- Focus on smart technologies in relation to energy demand management.

The Investment Objectives for the programme are to:

1. Future proof at least 10,300 properties (7,000 retrofit, 3,300 new build) within five years to increase 'affordable warmth' and reduce fuel poverty
2. Improve health and wellbeing and reduce the burden on health and social services
3. Deliver a sustainable (commercially viable), cost effective and holistic housing programme by:
  - a. Taking a 'whole house' approach and developing proven, flexible designs
  - b. Demonstrating the viability of the HAPS concept to the rest of Wales/UK
  - c. Creating skilled jobs, a legacy and mainstreaming the HAPS concept
  - d. Creating a sustainable regional supply chain that retains the creation of design, construction and maintenance jobs
4. Invest in the professional evaluation of the quality and experience of solutions and understanding of the application of new technologies
5. Promote awareness of how key stakeholders (particularly energy users) optimise their interface with the technology
6. Support measures to mitigate climate change by reducing CO<sub>2</sub> emissions and energy demand
7. Create an energy system that is compatible with future smart developments, maximising benefits to the occupant/owner and reducing pressure on the grid by providing local energy generation and security

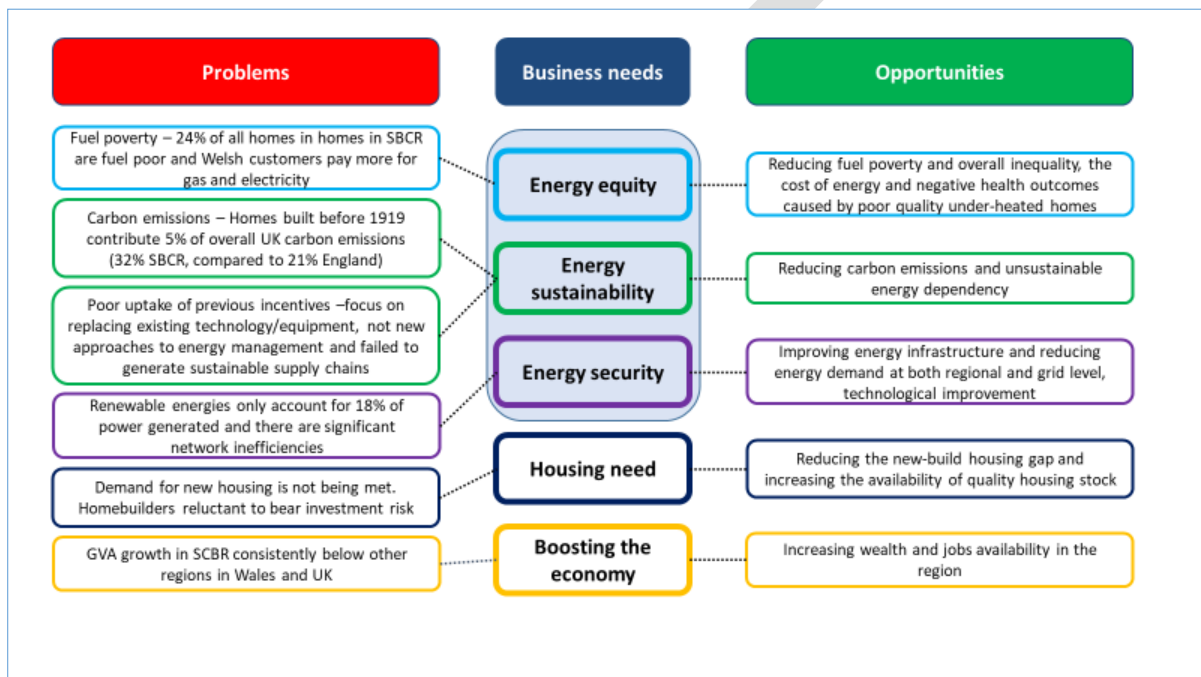
The 'Energy Trilemma', entails complex interwoven links between public and private sectors, governments and regulators, economic and social factors, national resources, environmental concerns and individual behaviours.

Delivering policies which simultaneously address energy security, universal access to affordable energy services and environmentally sensitive production and use of energy is a formidable challenge facing government and industry. The 'Energy Trilemma' provides a clear



framework within which to deliver energy transformation and make sustainable energy systems a reality.<sup>4</sup>

There is a need to provide safe, efficient and affordable homes and address the energy trilemma which is one of the most pressing universal themes and global challenges of our time and addressing these issues is a key business need and presents the most compelling reason for investment. The following Figure summarises the problems and opportunities:



The key service requirements are for a Homes as Power Stations programme to:

- To facilitate the adoption of the ‘homes as power stations’ concept i.e. energy positive homes through an innovative combination of design and flexible technology solutions to allow buildings to generate, store and release energy
- Develop an indigenous sustainable supply chain incorporating leading research and high value manufacturing and construction operations
- Develop a skilled workforce in renewable technologies
- Develop an affordable flexible design approach

<sup>4</sup> <https://www.worldenergy.org/work-programme/strategic-insight/assessment-of-energy-climate-change-policy/>

- Help to provide clean, affordable and secure energy to tackle fuel poverty and address health and wellbeing issues associated fuel poverty

The scope of this work is defined by the Swansea Bay City Deal and the geographic area of the four local authorities that have signed the joint agreement. The potential scope of activity is to facilitate the adoption of the HAPS approach in new build homes and retrofit programmes, while developing an indigenous sustainable supply chain across the stock of Local Authority/RSL properties, which can be scaled up to include private sector properties.

### **Economic Case**

Through extensive stakeholder engagement, a wide range of programme options were considered, and a short-list of options agreed. Following evaluation of the short-listed options, a cost benefit analysis demonstrates that action to improve energy efficiency in homes represents excellent value for money, particularly through:

- A substantial return on investment from GVA added (jobs in this sector are particularly valuable and deliver a much higher GVA than an 'average' job); and
- The value of energy savings has substantial potential for cost and efficiency savings

The preferred option for the HAPS programme would deliver a mean NPV return over the 15 years of the City Deal of £106 million.

### **Commercial Case**

The preferred way forward described in the Economic Case proposes a programme of activity across the Swansea Bay City Region focused on the following elements:

- Facilitating the uptake of the HAPS approach in new build developments and retrofit programmes
- Supply chain development fund
- Monitoring and evaluation

### ***Facilitating the uptake of the HAPS approach in new build and retrofit developments***

Under the direction of a Programme Manager (to be appointed by the Lead Local Authority); two project managers will be appointed to the

HAPS programme, one to facilitate the new build developments and the other for retrofit programmes. They will ensure the adoption of the HAPS concept in the public and private housing sectors.

### ***Supply chain development fund***

Funding will be identified within the HAPS programme to create a sustainable and skilled regional supply chain to deliver the HAPS concept during the life of the programme and beyond. The HAPS programme will continue to liaise with the City Deal Skills and Talent programme in addition to FE, HE and the Renewable Energy Skills Forum (Wales) to ensure that there is a sufficient pool of skilled workers to develop, install and maintain the next generation of energy efficient technologies.

To assist suppliers to grow, develop and diversify into renewable technologies, the HAPS programme will establish a HAPS Supply Chain Investment Fund which will be managed by the programme team, overseen by the SRO.

### ***Monitoring and evaluation***

The HAPS programme will procure the services of an organisation to monitor and evaluate its activities. The programme manager will scope the tender specification based on the HAPS Investment Objectives including material use, whole life assessment, and monitoring and evaluating the quality of build / retrofit to avoid a legacy of problems due to poor workmanship, design etc. This will be developed into a good practice model. It is envisaged that monitoring and evaluation will be in three phases across the five years of the programme, including the social aspect and health and wellbeing benefits of HAPS:

Phase 1 – at the beginning of the programme baseline data will be collated

Phase 2 – at the end of tranche 1, an interim evaluation will be carried out. By this time, it is expected that the first 200 new build and 250 retrofit homes incorporating the HAPS approach will have been completed.

Phase 3 – toward the end of the programme, a full and final evaluation will be undertaken to inform decisions about future rollout of HAPS technologies.

### **Financial Case**

The Swansea Bay City Deal has determined sufficient funds are affordable for the programme and £15 million is available subject to the submission and approval of the Full Business Case.

The main activities will be to establish a programme team which will manage the new build and retrofit programmes (including financial incentives), manage the supply chain development fund (including a business grant process), marketing and procure an organisation to undertake monitoring and evaluation at key stages of the programme.

The inflation adjusted capital requirement for this programme will be funded through the City Deal as follows (note – only five years’ appraisals are shown, consistent with the proposed programme duration):

Yr.	Programme team	Financial incentives	Supply chain development	Marketing	Monitoring & evaluation	Total	Inflation Factor	Total
0	£200,000	£1,450,000	£250,000	£50,000	£50,000	£2,000,000	1	£2,000,000
1	£200,000	£2,950,000	£750,000	£50,000	£50,000	£4,000,000	1.028	£4,112,000
2	£200,000	£3,700,000	£1,000,000	£50,000	£50,000	£5,000,000	1.0609	£5,304,500
3	£200,000	£2,450,000	£1,000,000	£50,000	£50,000	£3,750,000	1.1087	£4,157,625
4	£200,000	-	-	£50,000	£50,000	£250,000	1.1475	£286,875
	<b>£1,000,000</b>	<b>£10,500,000</b>	<b>£3,000,000</b>	<b>£250,000</b>	<b>£250,000</b>	<b>£15,000,000</b>		<b>£15,861,000</b>

## Management Case

A phased introduction of the programme is envisaged over the first year and the programme team will need to be in place following approval.

Over the course of the programme, the strategic intention is to scale up, from proof of concept in the public sector to a targeted roll out of the HAPS concept to the private sector. Through this scaling up of activity it is anticipated that the costs associated with HAPS innovation will move to a more affordable cost envelope and the concept will be de-risked. Therefore, the HAPS programme is an evolving ‘live’ activity and the programme plan will be updated on a regular basis, with individual projects moving from proof of concept, to design, to funding secured.

At this stage it is envisaged that there will be three tranches within the five year programme:

Tranche 1 – establish the programme infrastructure, procure the independent organisation that will undertake the monitoring and evaluation, baseline the programme, integrate existing/related project activity, ensure the uptake of the HAPS approach for 200 new builds and 250 retrofits in line with the HAPS flexible design approach and flexible technology solutions.

It is important to note that the allocation of public housing in line with ‘nomination rights’ is the responsibility of the Local Authorities and

Housing Associations and these organisations will be consulted by the Project Managers.

Tranche 2 – undertake an interim evaluation and ensure that any recommendations are integrated into the programme, continue with new builds and retrofits (supported by financial incentives), initiate the supply chain development fund (including the business grant scheme) supported by business teams from the participating Local Authorities.

Tranche 3 – continue with new builds and retrofits through to the end of the programme, ensure that the supply chain is robust and sustainable for the future, showcase the programme to Welsh and UK interests, commence the final monitoring and evaluation and implement the exit strategy.

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# Strategic Case

## Introduction

The purpose of the Strategic Case is to make the case for change and to demonstrate how the proposed Homes as Power Stations (HAPS) programme aligns with the overall direction of national, regional and local strategies and policies, as well as other ongoing initiatives, projects and programmes. The Strategic Case comprises three parts as follows:

### Part 1 – Strategic context

This section provides an overview of the sponsoring organisation as well as a review of relevant strategies, policies and other ongoing initiatives, projects and programmes to demonstrate strategic fit.

### Part 2 – The case for change

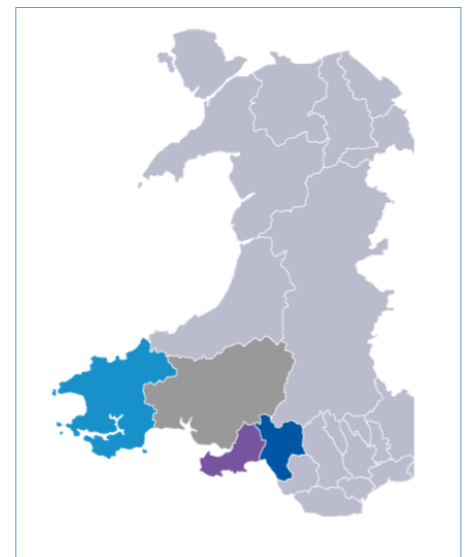
This section sets out the rationale for the project. This rationale is based on desired project outcomes, existing arrangements and an analysis of what needs to change to bridge this gap.

### Part 3 – Potential project scope

This section starts the process of considering how best to address these needs, including potential project scope and service requirements, the potential benefits and risks that might arise, as well as any constraints and dependencies that will need to be considered in establishing the preferred way forward.

### Part 1: Strategic context

The first part of the Strategic Case outlines the **strategic context** for this programme, which is provided through an overview of the sponsoring organisation, Neath Port Talbot County Borough Council (NPTCBC), and a review of relevant national, regional and local strategies and policies, including ongoing initiatives, projects and programmes to show how the proposed project supports the achievement of approved policy goals and fits within the organisation's overall business strategy.



## Part 1.1: Organisational overview

The Swansea Bay City Region consists of four local authority partners: Neath Port Talbot County Borough Council, City and County of Swansea, Carmarthenshire County Council and Pembrokeshire County Council. The HAPS programme is a regional programme with Neath Port Talbot CBC as lead local authority, therefore this section provides an overview of the lead local authority and each of the partner local authorities.

### Neath Port Talbot County Borough Council (NPTCBC)

Neath Port Talbot CBC is the lead local authority for the HAPS programme.

Neath Port Talbot CBC has a proven track record of managing and delivering large capital projects and programmes, including European structural fund projects, Welsh Government funded projects and other externally funded projects, for example:<sup>5</sup>

- PDR Harbour Way – £111m
- 21st Century Schools Programme - £122m
- Neath Port Talbot Physical Regeneration – £15m
- Vibrant & Viable Places – £35m

NPTCBC has extensive experience of lead body status for several collaborative projects including:

- South West Workways – £23m
- Workways+ - £7.5m
- Engage – £21m

#### NPTCBC key facts:

- formed in April 1996 after local government reorganisation
- it is an amalgamation of the former Neath and Port Talbot Borough Councils with parts of Lliw Valley Borough Council and West Glamorgan County Council
- the 8<sup>th</sup> most populous local authority areas in Wales – 140k population (2011 census)
- 17 areas are within the top 10% most deprived in Wales

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<sup>5</sup> All sums are approximate total project costs

## City and County of Swansea (CCS)

Swansea Council has a track record in delivering large scale regeneration programmes and projects, having been involved in the management and delivery of such programmes since its formation in 1996.

Programmes funded and delivered by the Council have included:

- Construction of the Liberty Stadium for Swansea City Football Club & Ospreys Rugby Club
- A £32m Leisure Centre in the city centre
- Joint ventures progressed with Welsh Government (and formerly WDA) to deliver:
  - Swansea Vale Mixed Use Development
  - Felindre Strategic Business Park

Over £120 million of programmes were facilitated during the EU Objective 1 2000-2006 programme including landmark schemes such as the National Waterfront Museum (£28m total cost).

During the Convergence 2007-2013 programme period, a series of large scale initiatives were delivered including:

- Quadrant Bus Station – £10m
- Waterfront City, which invested £30m in a range of improvements to the fabric of the city centre including major public realm and property façade alterations

## Carmarthenshire County Council (CCC)

Carmarthenshire County Council has a track record of delivering large scale regeneration projects and programmes, for example:

- South West Wales Property Development Fund – £25m
- South West Wales Local Investment Fund – £20m
- Cross Hands East development – £13m
- Carmarthenshire Physical Regeneration programme – £11m
- 21st Century Schools Programme

### Swansea Council key facts:

- formed in 1996 after local government reorganisation
- it is the second largest Local Authority in Wales (with a population of 244,513 in 2016)
- it has some of the most deprived areas in Wales, with 12.2% of Lower Super Output Areas (18 of 148) in the top 10% most deprived in Wales

### Carmarthenshire County Council key facts:

- formed in 1996 after local government reorganisation
- it is the third largest county in Wales covering some 2,365km<sup>2</sup> with a population of 184,681

- Vibrant & Viable Places (Welsh Government regeneration programme)

### **Pembrokeshire County Council (PCC)**

Pembrokeshire County Council has a track record in delivering large scale regeneration projects and programmes including:

- Withybush Strategic Development Site (business Infrastructure and access roads)
- Advance build Factory Programme
- Pembrokeshire Technium Development
- Several European Social Fund regional collaborative projects
- 21st Century Schools programme
- Haverfordwest Leisure Centre
- Bulford Road
- Pembroke and Pembroke Dock Physical Regeneration project
- Coastal Tourism Centre of Excellence
- One Historic Garden
- Haverfordwest Townscape Heritage Initiative

#### **Pembrokeshire County Council key facts:**

- formed in 1996 after local government reorganisation
- population of over 123,000

## **Part 1.2: Strategic fit – review of relevant strategies and policies (and ongoing relevant initiatives, projects and programmes)**

The second section of this strategic context part of the Strategic Case presents a review of all relevant UK, national (Wales), regional and local strategies, policies and initiatives, so as to demonstrate the strategic drivers underpinning the proposed HAPS programme and the extent to which this programme is strategically aligned with overall policy direction.

### **1.2.1 Swansea Bay City Deal**

The primary and overarching strategic driver for the HAPS programme is the £1.3 billion Swansea Bay City Deal ‘Internet Coast’ investment programme which was signed in March 2017 by the UK Prime Minister, the First Minister of Wales, the Secretary of State for Wales, the Welsh Government Cabinet Secretary for Finance and Local Government and the leaders of Swansea, Neath Port Talbot, Carmarthenshire and Pembrokeshire Councils.

Over a 15-year investment period, it is anticipated that the SBCD will:<sup>6</sup>

- Secure nearly £1.3 billion in funding for interventions to support economic growth within the SBCR, including over £600 million of direct private sector investment
- Contribute to increasing regional GVA by £1.8 billion and adding over 9,000 gross direct jobs
- Enable the SBCR to develop higher value sectors and employment opportunities to match; increase the number of businesses within these sectors to widen the region's economic base and improve the region's GVA, benchmarked against the UK average.

Interventions within the City Deal programme focus on four themes:<sup>7</sup>

- **The Internet of Economic Acceleration** – identifying the demand for, and potential delivery of, next generation digital infrastructure.
- **The Internet of Energy** – energy innovation and sustainable housing – placing the region at the forefront of energy innovation by creating a smart and efficient “Future Energy System” that will integrate the region's multi-billion asset base in renewable and conventional energy production and the testing and commercialising of integrated Future Energy Systems
- **The Internet of Life Science and Wellbeing** – expanding research and innovation infrastructure and piloting a digitally integrated healthcare environment
- **Smart Manufacturing** – supporting the critically important regional manufacturing economy through the embedding of Industry 4.0 principles and developing leading edge research capability.

The HAPS intervention is identified in the Heads of Terms document as one of the prioritised projects in the City Deal Heads of Terms document under the Internet of Energy theme - see extract below:

***The Internet of Energy.*** *To place the region at the forefront of energy innovation in the areas of sustainable house building to address fuel poverty and in the creation of a centre of excellence to develop and exploit aspects of marine and other energy.*

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<sup>6</sup> Swansea Bay City Region City Deal Heads of Terms

<sup>7</sup> Ibid, Swansea Bay City Region: A City Deal 2016-2035, The Internet Coast

## **The Internet of Energy**

*The Internet of Energy theme seeks to build on the significant and diverse energy asset base within the region. It will align conventional and renewable energy production and storage capabilities, world leading research in areas such as tidal, materials and energy systems with the strategic energy hub at Milford Haven and transformative initiatives such as SPECIFIC.*

*This alignment will provide significant economic benefits positioning the region as a centre for energy related innovation as well as responding to critical regional issues such as the shortage of affordable homes and fuel poverty.*

*Identified interventions will complement any existing provision in the region and will be subject to the submission of detailed business cases and implementation plans for approval by Welsh and UK Governments. Under this theme, interventions include:*

**Homes as Power Stations.** *Building on the capabilities of existing organisations and research facilities within the region that are developing new technologies to allow buildings to generate, store and release energy, this initiative seeks to undertake an extensive new house build and retrofit programme which integrates such technologies. Whilst this programme will help to generate sustainable and affordable homes and address fuel poverty, it will also develop and seek to attract new sector supply chains incorporating leading research and high value manufacturing and construction operations. The UK and Welsh Governments expect the Swansea Bay region's proposals to be ambitious and also additional to the existing innovation landscape.*

The City Deal specifically provides that:

*'Building on the capabilities of existing organisations and research facilities within the region that are developing new technologies to allow buildings to generate, store and release energy, this initiative seeks to undertake an extensive new house build and retrofit programme which integrates such technologies. Whilst this programme will help to generate sustainable and affordable homes and address fuel poverty, it will also develop and seek to attract new sector supply chains incorporating leading research and high value manufacturing and construction operations. The UK and Welsh Governments expect the Swansea Bay City Region's proposals to be ambitious and additional to the existing innovation landscape.'*



Intended outcomes of the City Deal that are of direct relevance to the HAPS programme include:

- Establish Swansea and its hinterland as a ‘City of innovation’
- Establish Swansea Bay as a low carbon economy and international centre for renewable energy production and conservation<sup>8</sup>

### 1.2.2 UK Government strategies and policy drivers

A range of relevant UK-wide strategies and policies to this project include:

UK level policy drivers	Relevance to this investment
<p><b>Industrial Strategy: Building a Britain Fit for the Future<sup>9</sup></b></p>	<p>The UK Government’s overall vision for the economy, as set out in its 2017 national Industrial Strategy, is to ‘create an economy that boosts productivity and earning power throughout the UK.’</p> <p>To deliver this vision the strategy sets out a range of policies across five ‘foundations’ (ideas, people, infrastructure, business environment and places) and four ‘grand challenges’ (AI &amp; data, clean growth, future mobility and ageing society).</p> <p>The HAPS programme aligns well with each of these foundations, particularly ‘ideas’ – where the goal is to create ‘the world’s most innovative economy’.</p> <p>The HAPS programme has greatest strategic fit with the ‘clean growth’ grand challenge, where the strategy states:</p> <ul style="list-style-type: none"> <li>▪ ‘[The UK Government’s] long-term goals are to make clean technologies cost less than high carbon alternatives, and for UK businesses to take the lead in supplying them to global markets.</li> <li>▪ ‘[The UK Government] will increase [its] support for innovation so that the costs of clean technologies, systems and services are reduced across all sectors.’</li> <li>▪ ‘The move to cleaner economic growth – through low carbon technologies and the efficient use of resources – is one of the greatest industrial opportunities of our time.’</li> <li>▪ ‘We will transform construction techniques to dramatically improve efficiency’</li> <li>▪ ‘For the majority of [the UK’s] energy to be clean and affordable, we need much more intelligent systems. Smart</li> </ul>

<sup>8</sup> Swansea Bay City Region: A City Deal 2016-2035, The Internet Coast

<sup>9</sup> [www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future](http://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future)

	<p>systems can link energy supply, storage and use, and join up power, heating and transport to increase efficiency dramatically. By developing these world-leading systems in the UK, we can cut bills while creating high-value jobs for the future.’</p> <p>The Industrial Strategy has committed £170 million for innovation to transform productivity in the construction sector.</p>
<p><b>Climate Change Act<sup>10</sup></b></p>	<p>The Climate Change Act established a target for the UK to reduce its emissions by a minimum of 80% from 1990 levels by 2050 with five-yearly interim targets. The first four carbon budgets up to 2027 have been set in law. The current (second) carbon budget period (2013-2017) requires a reduction of 29% over 1990 baseline levels. Meeting the third (2018-2022) and fourth carbon budgets (2023 and 2027) requires emissions to reduce to 35% and 50% respectively.</p> <p>To note, the Welsh Government has set a more ambitious target of reducing emissions in Wales by at least 40% by 2020 from 1990 levels with a target to reduce emissions by 3% per annum, measured against a baseline of average emissions between 2006 and 2010. This includes all ‘direct’ greenhouse gas emissions in Wales except those from heavy industry and power generation that are covered by the EU Emissions Trading Scheme.<sup>11</sup></p>
<p><b>Industrial Strategy: Grand Challenges - Clean Growth<sup>12</sup></b></p>	<p>The Clean Growth Strategy – leading the way to a low carbon future, (October 2017) aims to make the transition to a global low-carbon economy and has two clear areas of alignment - <i>‘Improving our homes’</i> and <i>‘Delivering Clean Smart, Flexible Power’</i>.</p> <p>The strategy aims to reduce emissions from homes to around 58 million tonnes of CO<sub>2</sub> by 2032, and towards a target of only 6 million tonnes by 2050. The strategy also highlights the need for grid level storage to curb peak demand and the need to improve demand side responsiveness.<sup>13</sup></p>
<p><b>Industrial Strategy: Grand Challenges -</b></p>	<p>This challenge aims to transform the construction sector – enabling it to produce safe, healthy, efficient buildings using the latest digital manufacturing techniques.</p>

<sup>10</sup> <http://www.legislation.gov.uk/ukpga/2008/27/contents>

<sup>11</sup> [www.legislation.gov.uk/ukpga/2008/27/pdfs/ukpga\\_20080027\\_en.pdf](http://www.legislation.gov.uk/ukpga/2008/27/pdfs/ukpga_20080027_en.pdf)

<sup>12</sup> [www.gov.uk/government/publications/industrial-strategy-the-grand-challenges/industrial-strategy-the-grand-challenges](http://www.gov.uk/government/publications/industrial-strategy-the-grand-challenges/industrial-strategy-the-grand-challenges)

<sup>13</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/651916/BEIS\\_The\\_Clean\\_Growth\\_online\\_12.10.17.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/651916/BEIS_The_Clean_Growth_online_12.10.17.pdf)



<p><b>Transforming construction</b><sup>14</sup></p>	<p>The challenge will support industry in adopting technologies and help buildings to be constructed 50% faster, 33% cheaper and with half the lifetime carbon emissions.</p> <p>Government is looking to industry and researchers to innovate in construction, increase productivity across the UK and open up significant global markets for efficient buildings.</p> <p>The HAPS programme will provide the evidence base for transforming the construction sector in this case the housing sector by facilitating the take up and monitoring / evaluating of energy positive homes.</p>
<p><b>Industrial Strategy: Grand Challenges – Energy revolution challenge</b><sup>15</sup></p>	<p>Smart energy systems can intelligently link energy supply, storage and use, and power heating and transport in ways that dramatically improve efficiency.</p> <p>The government is enabling the UK to take advantage of this by funding industry and researchers to create new systems. They will provide cleaner, cheaper energy, while creating high value jobs for the UK.</p> <p>The HAPS programme will provide the evidence base for this challenge area by facilitating the take up and monitoring / evaluating of energy positive homes.</p>
<p><b>Construction Sector Deal</b><sup>16</sup></p>	<p>The Construction Sector Deal sets out an ambitious partnership between the industry and the government that aims to transform the sector’s productivity through innovative technologies and a more highly skilled workforce.</p> <p>One of the benefits outlined in the Construction Sector Deal states ‘better homes that are cheaper to run’ – the HAPS programme is directly aligned to support this.</p>
<p><b>Transforming Infrastructure Performance (TIP) Plan</b><sup>17</sup></p>	<p>The HAPs programme is a demonstration programme and aligns with the Transforming Infrastructure Performance (TIP) plan, which is the UK Government’s plan to increase the effectiveness of investment in infrastructure – both economic infrastructure such as transport and energy networks, by improving productivity in the way we design, build and operate assets.</p>

<sup>14</sup> <https://www.ukri.org/innovation/industrial-strategy-challenge-fund/transforming-construction/>

<sup>15</sup> <https://www.ukri.org/innovation/industrial-strategy-challenge-fund/prospering-from-the-energy-revolution/>

<sup>16</sup> [www.gov.uk/government/publications/construction-sector-deal](http://www.gov.uk/government/publications/construction-sector-deal)

<sup>17</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/664920/transforming\\_infrastructure\\_performance\\_web.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664920/transforming_infrastructure_performance_web.pdf)

**Consultation -  
The Future  
Homes  
Standard:  
changes to  
Part L and  
Part F of the  
Building  
Regulations  
for new  
dwellings** <sup>18</sup>

This consultation sets out government plans for the Future Homes Standard, including proposed options to increase the energy efficiency requirements for new homes in 2020. The Future Homes Standard will require new build homes to be future-proofed with low carbon heating and world-leading levels of energy efficiency; it will be introduced by 2025.

This document is the first stage of a two-part consultation about proposed changes to the Building Regulations. It also covers the wider impacts of Part L for new homes, including changes to Part F (ventilation), its associated Approved Document guidance, airtightness and improving as-built performance of the constructed home.

The HAPS programme is aligned to these proposed energy efficiency requirements.

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<sup>18</sup> <https://www.gov.uk/government/consultations/the-future-homes-standard-changes-to-part-l-and-part-f-of-the-building-regulations-for-new-dwellings>

### 1.2.3 National (Welsh Government) strategies and policy drivers

At the national (Wales) level there are a number of strategies and policy drivers of direct relevance to this project, including:

National (Wales) policy drivers	Relevance to this investment
<p><b>Prosperity for All: The national strategy (Taking Wales Forward)</b></p>	<p>HAPS will contribute to the following priority areas of this strategy:</p> <p><b>Housing</b> – the HAPS programme will contribute to meeting new-build targets in Wales. There is a current shortage of energy efficient new housing in the region. HAPS will facilitate the adoption of a programme of new-build energy efficient housing, with integrated renewable energy, combined with an energy efficiency retrofit of existing stock to improve their energy efficiency will support meeting this target.</p> <p><b>Skills and employability</b> – through links with the Skills and Talent programme, the HAPS programme will ensure that people have appropriate skills to take advantage of available employment opportunities linked to renewable technologies in housing. The programme will work with employment initiatives to ensure unemployed (long and short-term) and economically inactive individuals can access appropriate skills training to increase their employment chances.<sup>19</sup></p>
<p><b>Prosperity for All: A Low Carbon Wales</b> 20</p>	<p>This Plan sets the foundations for Wales to transition to a low carbon nation. Cutting emissions and the moving towards a low carbon economy bring opportunities around clean growth for business, as well as wider benefits for people and our environment. The HAPs programme links directly into the following policy areas of the plan:</p> <p><b>Policy 32</b> – Developing Routes to Market for Renewable Technologies - The UK also needs newer and emerging technologies to continue to be developed, to provide a diverse mix of generation, which can also provide economic opportunities in exporting technology and expertise.</p> <p><b>Policy 33</b> – Increasing local ownership of energy generation. In 2018 Welsh Government held a call for evidence on the benefits of, and challenges in, increasing locally-owned generation<sup>48</sup>. This demonstrated that increasing ownership of energy generation within Wales is likely to increase prosperity and we are now taking forward the actions indicated by the evidence.</p>

<sup>19</sup> <http://gov.wales/docs/strategies/160920-taking-wales-forward-en.pdf>

<sup>20</sup> [https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan\\_1.pdf](https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf)

	<p>This includes developing a policy position on ownership of energy generation.</p> <p><b>Policy 36 - Market Regulation and Investment.</b> In 2017 UK Government published the ‘Upgrading our Energy System: Smart Systems and Flexibility’ plan. This set out actions government, Ofgem and industry will take to:</p> <ul style="list-style-type: none"> <li>▪ remove barriers to smart technologies (such as storage and demand-side response);</li> <li>▪ enable smart homes and businesses; and improve access to energy markets for new technologies and business models.</li> </ul>
<p><b>Wellbeing of Future Generations (Wales) Act 2015</b></p>	<p>The Well-being of Future Generations Act aims to improve the social, economic, environmental and cultural well-being of Wales through seven well-being goals:</p> <ul style="list-style-type: none"> <li>▪ <b>Prosperous Wales</b> – HAPS will directly tackle fuel poverty and play a key role in driving economic growth, supporting the growth of green jobs and skills throughout Wales and increasing the competitiveness of businesses</li> <li>▪ <b>Resilient Wales</b> – HAPS will tackle poverty and the global threat of climate change by addressing the energy trilemma of affordability, sustainability and security of the energy supply and the need for decarbonisation and contributing to meeting the demand for new houses</li> <li>▪ <b>Healthier Wales</b> – provision of low carbon, energy efficient homes will have a positive effect on health and well-being and address the health inequalities caused by poor energy efficiency</li> <li>▪ <b>More Equal Wales</b> – HAPS will work with partners and networks to ensure that the opportunities created by the programme will be available and accessible to all; help reduce inequalities within society and address health inequalities caused by poor energy efficiency</li> <li>▪ <b>Cohesive Community</b> – the programme will contribute to meeting societal needs for efficient and healthy housing with lower energy costs</li> <li>▪ <b>Vibrant Culture and thriving Welsh Language</b> – Opportunities will be taken to promote the Welsh language in the delivery of the programme</li> <li>▪ <b>Globally Responsible Wales</b> – the programme will be developed and delivered in line with the sustainable development principles highlighted by the Act. The programme will also contribute to the efficient use of resources through new build and retrofit activities<sup>21</sup></li> </ul>

<sup>21</sup> <http://gov.wales/topics/people-and-communities/people/future-generations-act/?lang=en>

<p><b>Innovation Strategy for Wales</b></p>	<p>HAPS will deliver against the five key themes:</p> <ul style="list-style-type: none"> <li>▪ improving collaboration</li> <li>▪ promoting a culture of innovation</li> <li>▪ providing flexible support and finance for innovation (in partnership with Welsh Government)</li> <li>▪ innovation in Government</li> <li>▪ prioritising and creating critical mass<sup>22</sup></li> </ul>
<p><b>The Environment (Wales) Act</b></p>	<p>The Environment (Wales) Act puts in place legislation needed to plan and manage Wales' natural resources in a more proactive, sustainable and joined-up way. It seeks to position Wales as a low carbon, green economy, ready to adapt to the impact of climate change.</p> <p>Relevant sections of the Act are:</p> <ul style="list-style-type: none"> <li>▪ <b>Part 1:</b> Sustainable management of natural resources in a more proactive, sustainable and joined-up way</li> <li>▪ <b>Part 2:</b> Climate change – provides Welsh Ministers with powers to put in place statutory emission reduction targets, including at least an 80% reduction in emissions by 2050 and carbon budgeting to support their delivery. This is vital within the context of existing UK and EU obligations, sets a clear pathway for decarbonisation and provides certainty and clarity for business and investment<sup>23</sup></li> </ul>
<p><b>Energy Wales: A Low Carbon Transition</b></p>	<p>The Welsh Government set out its proposals for transitioning to a sustainable, low carbon economy in Energy Wales: A Low Carbon Transition, in 2012. This aims to maximise the long-term economic benefits of the transition, ensuring communities benefit from energy infrastructure developments and careful planning and management of the relationship between energy development and the natural environment.</p> <p>The Welsh Government committed to prioritise efforts on:</p> <ul style="list-style-type: none"> <li>▪ <b>Leadership</b> providing a clear, consistent framework for investors, regulators and decision-makers and infrastructure, coordination and stability to make Wales a great place to do business</li> <li>▪ <b>Maximising jobs and wider economic benefits</b> ensuring communities derive long-term benefits</li> <li>▪ <b>Acting now for Wales' long-term energy future</b> supporting innovation, research, development and commercialisation in the areas that offer the greatest potential for long-term benefit</li> </ul> <p>Delivery proposals include: priorities for action, high level milestones and a summary of deliverables for low carbon energy, energy efficiency, energy intensive industries, marine energy,</p>

<sup>22</sup> <http://gov.wales/docs/det/publications/140313innovationstrategyen.pdf>

<sup>23</sup> [www.legislation.gov.uk/anaw/2016/3/pdfs/anaw\\_20160003\\_en.pdf](http://www.legislation.gov.uk/anaw/2016/3/pdfs/anaw_20160003_en.pdf)

	<p>regulatory regimes, infrastructure and other areas. As of April 2017, public services in Wales should use 100% renewable electricity, 50% of which will be generated in Wales.</p> <p>The <i>Programme for Government, Taking Wales Forward 2016-2021</i>, reconfirms the commitment to emissions reductions and support for renewable energy.</p> <p>In a statement in December 2016, the Cabinet Secretary for Climate Change, Environment and Rural Affairs, Lesley Griffiths, outlined energy priorities for the Fifth Assembly, including:</p> <ul style="list-style-type: none"> <li>▪ Reducing energy consumption</li> <li>▪ Reduced reliance on energy generated from fossil fuels</li> <li>▪ An actively managed transition to a low-carbon economy<sup>24</sup></li> </ul>
<p><b>Green Growth Wales: Local Energy</b></p>	<p>Sets out the approach to local energy in support of the strategic energy policy. The energy system is in a period of transition – an opportunity for Wales to take control of its own energy needs. The vision is for communities and businesses to use locally generated electricity and heat, from a range of renewable installations, to supply local demand and minimise dependence on central generation:</p> <ul style="list-style-type: none"> <li>▪ Creating local energy systems</li> <li>▪ Tackling poverty for the long term</li> <li>▪ Positioning Wales at the forefront of carbon reduction<sup>25</sup></li> </ul>
<p><b>Smart Living Wales</b></p>	<p>A range of emerging drivers in Wales and the UK have increased interest in how to intelligently balance, interconnect and integrate smarter solutions to assist the balancing of the energy trilemma - security, affordability and low carbon developments. The vision adopted in the Smart Living Demonstrator Framework is:</p> <p><i>“Wales has the opportunity to influence how we live with energy and resources in the future through demonstrators that will innovatively transform homes, businesses and communities providing multiple benefits for all.”</i></p> <p>‘Smart Living’ is a concept covering a range of policy and practical interventions that drive low carbon solutions that can deliver a range of societal benefits. It is within this context that the HAPS programme will be developed and delivered.<sup>26</sup></p>
<p><b>Independent Review of Affordable Housing Supply</b></p>	<p>The Independent Review Panel were established in May 2018 by the then Minister for Housing and Regeneration, in relation to the HAPs programme relevance links to the following recommendations of the review:</p> <ol style="list-style-type: none"> <li>1. Introduction of a requirement for all new affordable homes to be near zero carbon / EPC ‘A’ using a fabric first approach</li> </ol>

<sup>24</sup> <http://gov.wales/topics/environmentcountryside/energy/energywales/?lang=en>

<sup>25</sup> <http://gov.wales/topics/businessandconomy/creating-a-sustainable-economy/green-growth-wales/?lang=en>

<sup>26</sup> <http://gov.wales/topics/businessandconomy/creating-a-sustainable-economy/smart-living/?lang=en>



<p><b>(Wales), Final Report, April 2019<sup>27</sup></b></p>	<p>from 2021, supplemented by technology (renewables) if required</p> <p>2. Continue to support the trialling of Modern Methods of Construction (MMC) to help establish which methods can contribute to the objective of increasing the scale and pace of affordable housing provision with the existing resources available.</p> <p>Develop a strategy to map out how Wales could further use off-site manufacturing (OSM) and MMC to deliver near zero carbon homes along with an appropriate timetable for achieving this.</p>
<p><b>Smarter Energy Future for Wales (National Assembly for Wales Environment and Sustainability Committee)</b></p>	<p>The National Assembly for Wales Environment and Sustainability Committee recommends moving to 'near-zero' carbon emissions as the new Welsh Housing Quality standard. It also strongly advocates for local energy systems, with grid level local prioritisation for Welsh customers, based on net positive buildings and homes.</p> <p>The report emphasises the importance of local, sustainable, supply chains for technology development, supply and fitting, increasing Welsh resilience and delivering carbon cuts through the framework laid out in the Wellbeing of Future Generations Act. Finally, the report recommends setting up a not-for-profit, publicly owned energy company, a suggestion that has been endorsed by Ofgem.<sup>28</sup></p>

## Welsh Government emerging retrofit policy

Welsh Government are currently working on a retrofit policy in Wales to decarbonise existing homes as outlined in 'Prosperity for All: A Low Carbon Wales'<sup>29</sup>. HAPS has the potential to deliver a number of the recommendations in the report<sup>30</sup> for example:

- *Urgently undertake a series of coordinated actions that will create an environment in Wales where decarbonising homes becomes the norm;*
- *Collect data and knowledge about the condition and performance of the housing stock to inform future decisions and check the progress and outcomes of the programme;*

<sup>27</sup> [https://gov.wales/sites/default/files/publications/2019-04/independent-review-of-affordable-housing-supply-report\\_0.pdf](https://gov.wales/sites/default/files/publications/2019-04/independent-review-of-affordable-housing-supply-report_0.pdf)

<sup>28</sup> [www.assembly.wales/laid%20documents/cr-ld10610/cr-ld10610-e.pdf](http://www.assembly.wales/laid%20documents/cr-ld10610/cr-ld10610-e.pdf)

<sup>29</sup> [https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan\\_1.pdf](https://gov.wales/sites/default/files/publications/2019-06/low-carbon-delivery-plan_1.pdf)

<sup>30</sup> <http://files.site-fusion.co.uk/6b/76/6b7656b3-8004-428e-a641-5746675404f5.pdf>

- *Pilot and trial new solutions to decarbonise Welsh homes.*

### 1.2.4 Regional and local strategies and policy drivers

At the regional and local level, there are a number of strategies and policies of direct relevance to this project, including:

Regional and local policy drivers	Relevance to this investment
<p><b>Swansea Bay City Region Economic Regeneration Strategy<sup>31</sup></b></p>	<p>HAPS is one of eleven programmes prioritised to deliver the Swansea Bay City Deal ‘Internet Coast’ strategy, based on the Swansea Bay City Region Economic Regeneration Strategy 2013 – 2030.</p> <p>The Swansea Bay City Deal is supported by the evidence-based Swansea Bay City Region Economic Regeneration Strategy 2013 – 2030. This strategy comprises five strategic aims to deliver the ambitious vision: <i>‘By 2030, South West Wales will be a confident, ambitious and connected City Region, recognised internationally for its emerging knowledge and innovation economy’.</i></p> <p>HAPS is aligned to each of the five strategic aims of this strategy:</p> <ul style="list-style-type: none"> <li>▪ <b>Business growth, retention and specialisation</b> – supporting the creation of new industry in the region, supporting locally-based business growth and creating a sustainable supply chain</li> <li>▪ <b>Skilled and ambitious for long-term success</b> – working closely with the Skills and Talent City Deal programme to ensure the region’s workforce has the appropriate skills to maximise the opportunity of HAPS</li> <li>▪ <b>Maximising job creation for all</b> – supporting diversification of the economy, through the creation of employment opportunities linked to the green growth economy and a sustainable indigenous supply chain</li> <li>▪ <b>Knowledge economy and innovation</b> – establishing the Swansea Bay City Region as a test bed for smart, low carbon, energy efficient homes and associated product development and commercialisation of innovation</li> <li>▪ <b>Distinctive places and competitive infrastructure</b> – providing an attractive infrastructure asset for the region<sup>32</sup></li> </ul>

### 1.2.5 Links with other relevant initiatives, projects and programmes

<sup>31</sup> Swansea Bay City Region Economic Regeneration Strategy, 2013-2030

<sup>32</sup> [www.swansea.gov.uk/swanseabaycityregioneconomicregenerationstrategy](http://www.swansea.gov.uk/swanseabaycityregioneconomicregenerationstrategy)



At the national, regional and local level, there are a number of other relevant initiatives, projects and programmes to which the HAPS programme is aligned and will complement.

Once the HAPS programme is approved, the programme team can formally work with the interventions listed below, limited activity has already taken place to establish links and alignment with the following interventions, however expectations need to be managed in terms of HAPS delivery prior to approval.

There is the potential for the HAPS project to be a regional demonstrator project – this will be developed further post approval and with support from the technical advisory group.

This engagement work is outlined in the Management Case of this business case.

Links with other activity	Relevance to this investment
<p><b>Active Building Centre<sup>33</sup></b></p>	<p>Neath Port Talbot CBC works closely with the Active Building Centre and is continuing to explore areas of collaboration, which will be fully realised once a HAPS programme team is established.</p> <p>The Homes as Power Stations regional programme and the Active Building Centre are aligned in a number of ways and will continue to work together to accelerate market adoption of energy positive and net zero homes to provide cleaner, cheaper and more resilient energy.</p> <p>The Active Building Centre strategic objectives are aligned to the HAPS investment objectives, with particular reference to the following ABC strategic objectives: ‘create a critical mass of buildings’ (residential in the case of HAPS), ‘Active Buildings as ‘Energy Positive Agent’ reducing grid impact (the HAPS definition is energy positive over a 12 month period), and ‘Adapt the Active Building Technology portfolio to tackle existing stock’ (the HAPS proposes to facilitate the adoption of energy positive</p>

<sup>33</sup> <https://www.activebuildingcentre.com/>

homes for new build and existing stock through a retrofit programme).

Neath Port Talbot CBC, as lead local authority for the HAPS programme, provided a letter of support to Swansea University for its submission to the Industrial Strategy Challenge Fund to establish an Active Building Centre, and it is proposed that the two programmes will establish a Memorandum of Understanding to facilitate the collaboration. The partners are committed to delivery of Active Buildings at a scale to make the region a UK leader.

There are a number of areas where the two programmes will collaborate, including:

#### Demonstrators

The Homes as Power Stations programme will provide real life examples of energy positive homes, both new build and retrofit, including at scale developments across the Swansea Bay City Region to demonstrate the benefits, including commercial viability of homes as power stations / active homes at scale by breaking down commercial barriers.

The HAPS developments will provide real life data at a local and regional level to feed in to the Active Building Centre national (UK wide) programme and will go some way to supporting the output of 17 demonstrator projects.

Neath Port Talbot CBC is a partner in the HAPS pathfinder project in Neath, a collaborative project between Neath Port Talbot CBC, Pobl and Swansea University's SPECIFIC project to showcase renewable technologies across a mixed tenure of 16 dwellings (flats and houses).

The aim of the HAPS programme and the Active Building Centre is to progress the rollout and increased scale of these technologies across a number of building typologies and the two programmes will work together to facilitate this. The HAPS programme will promote a flexible design approach and will continually monitor the performance of the technologies adopted.

Neath Port Talbot CBC has already identified up to 5 development schemes within the HAPS programme, totalling up to 150 units across the Swansea Bay City Region, which have the potential to be aligned to the Active Building Centre Active Homes programme.

The HAPS programme has already been identified in the Active Building Centre collaboration activity programme, in particular

	<p>work packages 2,4,6,7,8,9,11 and 12 and the HAPS programme team will work with the ABC programme team to develop a programme of delivery to realise this activity.</p> <p><u>Monitoring and evaluation</u> There is a commonality in the monitoring and evaluation of the HAPS and Active Building Centre programmes, and the programme teams will ensure consistency of approach and baseline data.</p> <p>The HAPS programme proposes a continuous monitoring and evaluation of technologies/ performance management to ensure continuous improvement to feed in to design development and will act as a living test bed (design feedback), this complements the work packages of the Active Building Centre.</p> <p>The HAPS proposes a marketing / education programme to disseminate the findings of the HAPS programme including energy performance, health benefits and social benefits including 'liveability / human interface with the technology which is aligned to the Active Building Centre programme elements on Health and Wellbeing, 'Active on the Inside' and Human interface design which are part of the Swansea University research element of the Active Building Centre.</p> <p><b>See Annex C for letter of support from the Active Building Centre</b></p>
<p><b>Welsh Government Warm Homes Programme<sup>34</sup></b></p> <p><b>ARBED<sup>35</sup></b></p> <p><b>NEST<sup>36</sup></b></p>	<p>Welsh Government Warm Homes, which includes the Arbed and Nest schemes, provides funding for energy efficiency improvements (retrofit) to low income households. The programme aims to:</p> <ul style="list-style-type: none"> <li>• help eradicate fuel poverty,</li> <li>• reduce harmful emissions into the environment,</li> <li>• boost economic development and regeneration in Wales by using the skills of local companies installing energy efficiency measures at domestic properties.</li> </ul> <p><u>Arbed</u> - has two delivery approaches. One is the EU funded element of the scheme which has been delivered for Welsh Government by procured scheme managers. The other is through the provision of grant funding to local authorities to enable them to manage energy efficiency schemes in their areas. Retro-fitting measures and technologies eligible under Arbed include:</p>

<sup>34</sup> <https://gweddill.gov.wales/topics/environmentcountryside/energy/efficiency/warm-homes/?lang=en>

<sup>35</sup> <http://arbedambyth.wales/>

<sup>36</sup> <https://nest.gov.wales/en/>

- Solid wall insulation
- Loft insulation and draught proofing
- Boiler and heating system upgrades (controls)
- Heat pumps
- The provision of energy saving advice

Nest - provides householders with access to free advice and support to help them reduce their energy bills. Those meeting Nest's eligibility criteria can access a free package of energy efficiency measures. Nest measures are designed for individual properties so there is no standard package. Measures can include:

- New gas boiler
- Central heating system
- Insulation
- Newer technologies such as air source heat pumps

British Gas is the scheme manager for Nest. The Energy Saving Trust is a sub-contractor to British Gas and provides the front-end service. Small and medium sized enterprises across Wales are sub-contracted by Nest to install agreed energy efficiency measures at domestic properties. The Nest scheme does not cold call households and all marketing materials carry the 'Nest' and Welsh Government logos.

#### Synergy and added value of the HAPS programme

The HAPS programme has synergies to the Warm Homes programme, as Arbed will provide some public sector funding to the HAPS programme and Nest will form part of the HAPS marketing and communications strategy to encourage awareness and the take up of energy efficient measures.

The HAPS team has met with the Arbed team within WG several times to ascertain how HAPS and Arbed can align and add value. Discussions are on-going, and once HAPS is approved an action plan can be developed to deliver synergies.

#### **Innovative Housing Programme (IHP) (Welsh Government)<sup>37</sup>**

The Innovative Housing Programme (IHP) is an annual capital funding programme with the aim of creating quality places to live. The programme will help inform the Welsh Government about the type of homes it should financially support in the future. The IHP is open to local housing authorities including local authority owned companies, registered social landlords, private sector bodies and social landlords. The programme is competitive and seeks to encourage innovation.

The Programme, which is funded by £90 million over three years, seeks to stimulate the design and delivery of new quality, affordable homes to:

<sup>37</sup> <https://gov.wales/innovative-housing-programme>

	<ul style="list-style-type: none"> <li>• Increase supply as part of the 20,000 new homes target;</li> <li>• Speed up delivery of homes to the market;</li> <li>• Trial new housing models and methods of delivery that address issues such as pressing housing need; fuel poverty; demographic change; help carbon reduction targets;</li> <li>• Prove the replicability of innovative housing models.</li> <li>•</li> </ul> <p><u>Synergy and added value of the HAPS programme</u>  The HAPS programme is aligned to the IHP as the IHP goes some way to delivering the aims and objectives of HAPS. The HAPS lead local authority (Neath Port Talbot CBC), as instructed by the City Deal Joint Committee has provided a regional letter of support for those projects submitted under the annual call for innovative projects.</p>
<b>Cardiff University Demonstrators project (ERDF)</b>	<p>Cardiff University secured ERDF to develop 10 demonstrators – both new build and retrofit.</p> <p>The lessons learned from these demonstrators have been fed in to the HAPS programme and the HAPS programme will move away from one off demonstrators to at scale developments.</p>
<b>Local Authority renewal areas</b> 38	<p>Area based renewal schemes enabled local authorities to focus activity and investment on areas that combine a need for assistance with the potential for regeneration. Investment in area based renewal schemes should not only secure improvements to houses themselves but also to environmental, social and economic conditions, leading to a restoration of confidence in the area.</p> <p>These wide ranging benefits of area renewal are also important in tackling the problems many local communities face in terms of social exclusion and sustainability. The Welsh Government provided local authorities with grants for housing renewal areas and Neath Port Talbot CBC implemented this initiative, with the other local authority partners in the region carrying out similar activity. Neath Port Talbot CBC declared a total of three Renewal Areas over a period of thirteen years:</p> <ul style="list-style-type: none"> <li>• Sandfields East and Aberavon Renewal Area 2004 – 2017</li> <li>• Upper Amman Valley Renewal Area 2007 – 2012</li> <li>• Neath East Renewal Area 2009 – 2017</li> </ul> <p>Renewal Areas were established to effect the comprehensive revitalisation of an area, bringing about improvements to homes, shops, other commercial premises, the local environment and the infrastructure by working in partnership with the private sector, other public bodies and most importantly, the local community to develop co-ordinated strategies to tackle the</p>

<sup>38</sup> <https://www.npt.gov.uk/1203>

	<p>problems identified by the people who live and work in these areas, Renewal Areas ended in March 2017.</p> <p><u>Synergy and added value of the HAPS programme</u> The HAPS programme will review evaluations of the Renewal Areas programme and identify good practice to inform the HAPS programme.</p>
<p><b>Warm Wales Limited</b><sup>39</sup></p>	<p>Warm Wales Cymru Gynnes deliver a wide range of partnership-based regeneration and sustainable energy measures in the fight against fuel poverty. Established in 2004 by the National Grid, Warm Wales was the first Community Interest Company in Wales. It was set up to meet the National Grid's specific aim to meet its corporate responsibility to Government and deliver benefits to 1 million fuel poor homes. It chose to do this under the banner of the 'Affordable Warmth' Programme. Warm Wales-Cymru Gynnes contributed to towards achieving this target.</p> <p><u>Synergy and added value of the HAPS programme</u> HAPS will engage with the Warm Wales programme and ascertain the role Warm Wales can play in the HAPS awareness raising and educational aspect.</p>
<p><b>ERDF funded Low Carbon Research Institute (LCRI) Retrofit programme</b><sup>40</sup></p>	<p>The LCRI Energy programme was launched in September 2009 and secured more than £15 million of ERDF funding which was matched with £19 million from Welsh universities and industry. The LCRI programme is a research development and innovation programme aiming for long-term economic growth and the creation of employment opportunities for Wales. The programme works with enterprises, including the SME sector in particular, to deliver industry-relevant new knowledge and technologies that will provide both business opportunities and help Wales deliver on its low carbon agenda.</p> <p><u>Synergy and added value of the HAPS programme</u> The HAPS programme has been informed by the research carried out by the LCRI programme and will continue to engage with it.</p>
<p><b>Energy Company Obligation (ECO)</b><sup>41</sup></p>	<p>The Energy Company Obligation (ECO) is a government energy efficiency scheme applicable to the whole of the Great Britain to help reduce carbon emissions and tackle fuel poverty. It was first introduced in 2013 and places legal obligations on larger energy suppliers to deliver energy efficiency measures to domestic premises. It focuses on insulation and heating measures and</p>

<sup>39</sup> <http://www.warmwales.org.uk/>

<sup>40</sup> <http://www.lcri.org.uk/>

<sup>41</sup> <https://www.ofgem.gov.uk/environmental-programmes/eco>



	<p>supports vulnerable consumer groups. ECO is intended to assist in reducing carbon emissions, maintaining security of energy supply and reducing fuel poverty</p> <p>The largest tranche of ECO runs until Sept 2018, with another tranche due to run from 2018 to 2022.</p> <p><u>Synergy and added value of the HAPS programme</u> The HAPS programme will engage with ECO to support the aims of the HAPS programme.</p>
<p><b>WG Regeneration Funding - Vibrant and Viable Places<sup>42</sup></b></p>	<p>The Welsh Government adopted a new approach to delivering regeneration projects within a Regeneration Framework in 2013, which targeted future Welsh Government funding. The targeted funding prioritised town centres serving 21<sup>st</sup> Century towns, coastal communities and Communities First clusters. A number of regeneration schemes supported included housing to improve the economy of the area.</p> <p>The VVP programme has ended, however the projects are still in delivery phase.</p> <p><u>Synergy and added value of the HAPS programme</u> The HAPS programme will identify areas of good practice from the VVP programme.</p>
<p><b>WG Targeted Regeneration Investment (TRI) programme<sup>43</sup></b></p>	<p>TRI is the successor to VVP and is a regeneration investment programme over 3 years which commenced in April 2018. It aims to invest WG regeneration funding in a targeted and focused way. The TRI programme is looking to support projects that promote economic regeneration – creating jobs, enhancing skills and employability and creating the right environment for businesses to grow and thrive – with a focus on individuals and areas most in need to ensure prosperity is spread to all parts of Wales.</p> <p><u>Synergy and added value of the HAPS programme</u> The TRI will inform the delivery of the HAPS programme and a number of HAPS schemes have been identified in the TRI programme of activity.</p>

## Part 1.3 Strategic context summary

The above review of key strategies and policy documents of relevance to the HAPS programme demonstrates consistent policy support for this intervention.

<sup>42</sup> <https://gov.wales/vibrant-and-viable-places-framework>

<sup>43</sup> <https://gov.wales/regeneration>

The principal strategic driver of investment in the Homes as Power Stations programme is a joint commitment from the UK Government, Welsh Government and four local authorities of the Swansea Bay City Region.

The 'Internet of Energy' is a key theme within the Swansea Bay City Deal Internet Coast Investment Programme. This commitment is underpinned by the availability of funding and a range of national, regional and local strategies which confirm the strength of strategic drive for action in this area, with a focus on the following areas:

- The need to meet the UK's clean energy challenges, while also ensuring that new technologies are sufficiently developed and evaluated to make them not only more efficient than current approaches but cheaper as well
- The importance of developing new construction techniques and techniques to improve the energy efficiency of housing
- The need for clean, affordable and secure energy
- Addressing climate change through delivering carbon neutral alternatives, in line with the decarbonisation agenda
- Improving health and well-being
- Tackling fuel poverty
- Ensuring people have the necessary skills which reflect the broad nature of the renewables sector

## **Part 2: The case for change**

As set out in the HM Treasury and Welsh Government's Better Business Case (BBC) guidance, establishing a robust case for change requires a clear understanding of:

- What the delivery organisation is seeking to achieve (the **investment objectives**)
- What is currently happening (the **existing arrangements**)
- What is required to close the gap between what is happening now (the existing arrangements) and what the delivery organisation is seeking to achieve in the future (the **business needs**)

In this way, the case for change is established on the basis of 'need', rather than simply on the contention that a project is a 'good thing to do'.



These three components of the case for change – the investment objectives, the existing arrangements and the business needs – are examined respectively below in Parts 2.1, 2.2 and 2.3 of this Strategic Case.

Importantly, key stakeholders were engaged and involved throughout this process of shaping the investment objectives, establishing the baseline existing arrangements and identifying future business needs. Details of the workshops held are provided below as part of the discussion on investment objectives.

## Part 2.1 Investment Objectives

Investment Objectives form the key starting block of the ‘case for change’ within the Strategic Case. These objectives describe what the delivery organisation, NPTCBC and its partners, are seeking to achieve with this programme in terms of targeted outcomes. They refer to the identifiable and measurable economic, social and environmental outcomes that NPTCBC and its partners wish to realise.

In accordance with best practice, these objectives are:

- Outcome-focused: i.e. focused on what needs to be achieved rather than the potential solution or means of provision
- As ‘SMART’ as possible (i.e. they should be Specific, Measurable, Achievable, Relevant and Time-bound)
- Neither too narrowly defined so as to preclude important options, nor too broadly defined as to cause unrealistic options to be considered at the options appraisal stage
- Limited in number (ideally to no more than five or six)

Investment objectives for a project typically address one or more of the following five generic drivers for intervention and spend:

1. **Effectiveness** – i.e. improving the quality of services in terms of the delivery of agreed outcomes. For example, by meeting new policy changes or operational targets
2. **Efficiency** – i.e. improving the delivery of public services in terms of outputs. For example, by improving the throughput of services whilst reducing unit costs
3. **Economy** – i.e. reducing the cost of public services in terms of the required inputs. For example, through ‘invest to save’ schemes or spend on innovative technologies

**4. Compliance** – i.e. to meet statutory, regulatory or organisational requirements and accepted best practice. For example, new health and safety legislation or building standards

**5. Replacement** – i.e. re-procuring services in order to avert service failure. For example, at the end of a service contract or when an enabling asset is no longer fit for purpose

Stakeholder engagement has been undertaken through workshops to develop the Investment Objectives and the long-list to short-list options using the Options Framework (documented in part 1 of the Economic Case).

A stakeholder workshop was held on 17<sup>th</sup> January 2018 to discuss and agree the Investment Objectives and long-list to short-list options for the investment. The workshop attendees were:

- Gareth Nutt, Director Environment, Neath Port Talbot County Borough Council
- Simon Brennan, Head of Property & Regeneration, Neath Port Talbot County Borough Council
- Lisa Willis, European & Strategic Funding Manager, Neath Port Talbot County Borough Council
- Christopher Jones, Energy Manager, Neath Port Talbot County Borough Council
- David Bratley, City & County of Swansea
- Darrel Barnes, City & County of Swansea
- Rachel Davies, Carmarthenshire County Council
- Steve Keating, Energy Manager, Pembrokeshire County Council
- Kerry MacDermot, Pembrokeshire County Council
- Jan Bell, SPECIFIC
- Keith Palmer, SPECIFIC
- Phil Jones, Cardiff University (Welsh School of Architecture)
- Jane Forshaw, Local Partnerships

The following Investment Objectives were agreed with corresponding baseline suggested measures:

No.	Investment objective	Measures
1	To future proof at least 10,300 properties (7,000 retrofit, 3,300 new build) within five years to increase 'affordable warmth' and reduce fuel poverty	<ul style="list-style-type: none"> <li>a) Assessments of cumulative energy consumption or SAP/EPC ratings</li> <li>b) Customer surveys</li> <li>c) Reductions in fuel poverty</li> </ul>

2	To improve health and wellbeing and reduce the burden on health and social services	<ul style="list-style-type: none"> <li>a) Reduced GP / hospital visits for asthma/respiratory conditions</li> <li>b) Improvement of health and wellbeing of household occupants</li> </ul>
3	To deliver a sustainable (commercially viable), cost effective and holistic housing programme by: <ul style="list-style-type: none"> <li>I. Taking a 'whole house' approach and developing proven, flexible designs</li> <li>II. Demonstrating the viability of the HAPS concept to the rest of Wales/UK</li> <li>III. Creating skilled jobs, a legacy and mainstreaming the HAPS concept</li> <li>IV. Creating a sustainable regional supply chain that retains the creation of design, construction and maintenance jobs</li> </ul>	<ul style="list-style-type: none"> <li>a) Ratio of jobs to capital investment</li> <li>b) Local GVA uplift from local supply chains</li> <li>c) Number of 'skilled' jobs</li> <li>d) Number of people employed and jobs protected</li> <li>e) Uptake of the HAPS concept outside of Swansea Bay City Region area</li> </ul>
4.	To invest in the professional evaluation of the quality and experience of solutions and understanding of the application of new technologies	<ul style="list-style-type: none"> <li>a) To be determined after engagement of evaluators</li> </ul>
5.	To promote awareness of how key stakeholders (particularly energy users) optimise their interface with the technology	<ul style="list-style-type: none"> <li>a) Predicted fuel bill reduction vs actual fuel bill</li> <li>b) Customer surveys</li> </ul>
6.	To support measures to mitigate climate change by reducing CO <sub>2</sub> emissions and energy demand. Predicted annual CO <sub>2</sub> reduction figures: <ul style="list-style-type: none"> <li>• Retrofit - 9,933 tonnes CO<sub>2</sub> annum</li> <li>• New build - 9,165 tonnes CO<sub>2</sub> annum</li> </ul> Figures assume 100% rollout.	<ul style="list-style-type: none"> <li>a) Including occupation, supply chain &amp; construction (reduction of CO<sub>2</sub> emissions)</li> <li>b) Additional measures to be determined after engagement of evaluators</li> </ul>
7.	To create an energy system that is compatible with future smart developments, maximising benefits to the occupant/owner and reducing pressure on the grid by providing local energy generation and security	<ul style="list-style-type: none"> <li>a) Potential of integrating smart / intelligent platform for user interface and monitoring and evaluation</li> <li>b) Volume of storage utilised, timing of grid demand response</li> </ul>

## Part 2.2 Existing arrangements

The potential impact of the HAPS programme to address the strategic drivers and deliver the outcomes articulated by the Investment Objectives is wide ranging.

This section 'Existing arrangements' describe the current situation / 'status quo' in the Swansea Bay City Region (SBCR). Given the focus of the strategic drivers in Part 1.2 of this document and the investment objectives established in Part 2.1 this section describes the current situation in the SBCR in terms of:

1. The Swansea Bay City Region economy
2. Homes and housing
3. Fuel poverty in the region
4. Energy production and demand
5. Carbon emissions
6. Existing energy efficiency programmes
7. Supply chain and support networks

As required by the Better Business Case Guidance, this section provides information on current levels of service provision, asset availability, demand and utilisation where possible and appropriate. Please note that any critique of the current situation is reserved for the next section, 'Business Needs', as per guidance requirements.

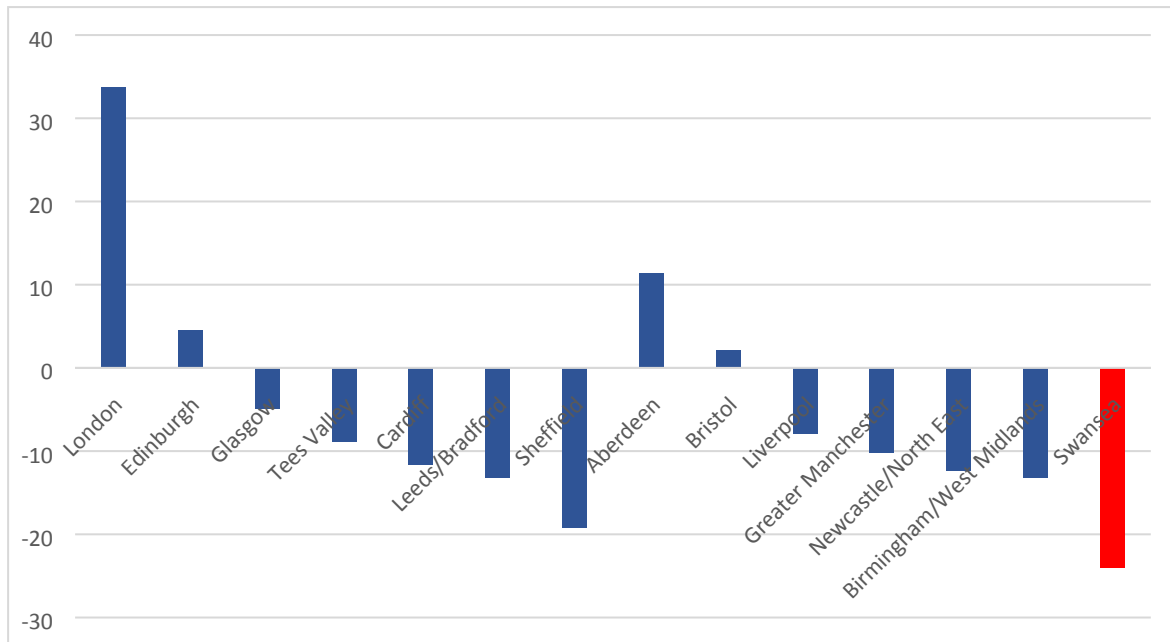
### ***2.2.1 The Swansea Bay City Region economy***

The Swansea Bay City Region has a population of 688,000 supporting 302,000 jobs and containing around 22,000 businesses. The region is a major driver of the Welsh economy and has a core of strong, home grown SMEs and globally important firms, including leading UK universities and major tourism assets.

However, economic inactivity remains high across the region with overall productivity (GVA) growth in the region consistently below that of other regions in the UK and Cardiff over the past two decades.<sup>44</sup> This is illustrated in Figure 1 below:

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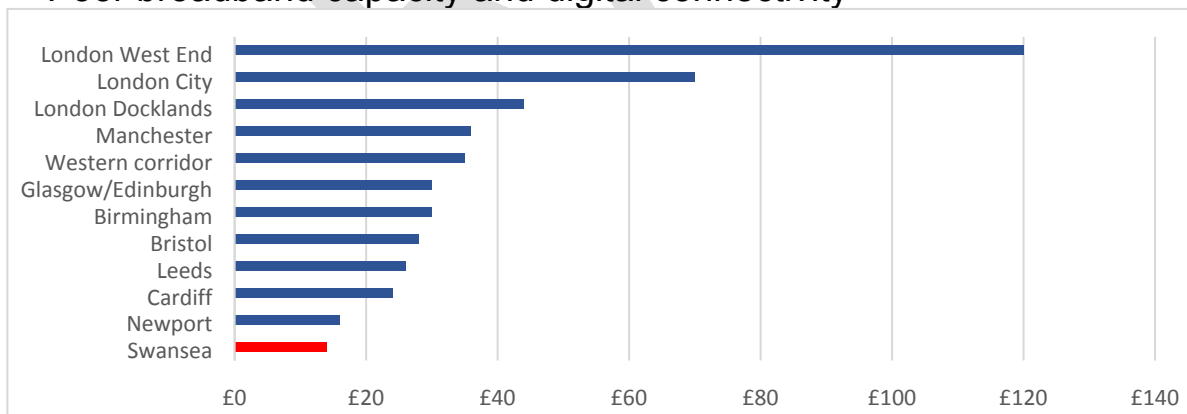
<sup>44</sup> <https://www.walesonline.co.uk/business/business-news/shocking-economic-figures-wales-regions-14260311>



**Figure 1 – City region productivity per hour relative to UK average (2016)**

The economic landscape is characterised by:

- Gearing of the economy’s sectoral mix towards lower value sectors, compared to the UK, with jobs in these sectors generally lower in value than elsewhere
- Low quality regional commercial and retail property, attracting low rents<sup>45</sup> (see Figure 2 below)
- Poor broadband capacity and digital connectivity



**Figure 2 – UK Office rents - £ per square foot (2016)**

Increasing productivity is seen as the key to raising economic growth and living standards in the long term. It is only by raising productivity that increases in real incomes can occur. If the aspiration is to improve the performance of the economy and make people better off, there needs to be an overall improvement in productivity.

<sup>45</sup> [www.jll.co.uk/.../South%20Wales%20Report%202016%20web.pdf](http://www.jll.co.uk/.../South%20Wales%20Report%202016%20web.pdf)

## 2.2.2 Homes and housing

There are 324,835 housing units in the Swansea Bay City Region, of which 28,164 are managed by local authorities and 25,007 by a Registered Social Landlord.<sup>46</sup> These data show that across the four local authority areas, the percentage of social housing is 16%. These are properties that are under the direct control of local authorities or a Registered Social Landlord.

	Local Authority	Registered Social Landlord	Owner occupied	Privately rented	All tenures
Pembrokeshire	5,668	2,462	45,870	7,811	61,811
Carmarthenshire	9,003	3,099	63,405	11,360	86,867
Swansea	13,493	7,185	71,236	18,978	110,892
Neath Port Talbot	0	12,261	45,471	7,533	65,265
<b>TOTAL</b>	<b>28,164</b>	<b>25,007</b>	<b>225,982</b>	<b>45,682</b>	<b>324,835</b>

Social housing is required to meet the Welsh Housing Quality Standard by 2020. This includes achieving an energy efficiency standard of SAP (Standard Assessment Procedure) 65 or higher (equivalent to an Energy Performance Certificate D rating). In March 2017, 92% of social housing was compliant with the quality standard (or subject to an acceptable fail).<sup>47</sup> Welsh Government have indicated that they may seek a SAP target of between 80 and 89 to be reached by 2030 across all tenures throughout Wales.

	Stock	Fully compliant stock	Compliant stock subject to acceptable fails	Non-Compliant
Pembrokeshire	5,650	5,076	574	0
Carmarthenshire	9,035	8,053	982	0
Swansea	13,500	1,224	9,138	3,138
NPT Homes*	8,883	5,987	2,896	0
<b>TOTAL</b>	<b>37,068</b>	<b>20,340</b>	<b>13590</b>	<b>3138</b>

<sup>46</sup> <https://statswales.gov.wales/Catalogue/Housing/Dwelling-Stock-Estimates/dwellingstockestimates-by-localauthority-tenure>

<sup>47</sup> <http://gov.wales/statistics-and-research/welsh-housing-quality-standard/?lang=en>

\*NPT homes is a Registered Social Landlord created by stock transfer from Neath Port Talbot Council in March 2011.

Around 15% of the total CO<sub>2</sub> emissions in Wales are generated from housing. Around 70% of homes that will exist in the 2050s will have been built before 2000 and Wales has some of the oldest and least thermally-efficient building stock in Europe.<sup>48</sup>

### *New housing*

The requirement for new homes varies year on year, as demographics, social dynamics and economic influences are constantly changing. In the Swansea Bay City Region, the requirement for new housing units is estimated at between 3,692 and 3,950 units per year.<sup>49</sup> The Welsh Government new build target is 20,000 affordable new homes by the end of this term of Government in 2021 - of which, 12,500 would be built by housing associations.<sup>50</sup> However, the current completion rate is 1,321<sup>51</sup> dwellings per year, which is well short of the housing needs requirement.

### **2.2.3 Fuel poverty in the region**

A household is deemed to be in fuel poverty if it needs to spend more than 10% of household income on fuel. In 2016 it was estimated that across the UK, approximately 291,000 households were living in fuel poverty. The Committee on Climate Change estimates that by 2020, UK consumers will be paying an average energy bill of £500, of which £105 will be supporting investment in low-carbon generation, including the market carbon price. Households in fuel poverty in the Swansea Bay City Region are as follows:<sup>52</sup>

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<sup>48</sup> <http://gov.wales/about/cabinet/cabinetstatements/2017/energyretrofits/?lang=en>

<sup>49</sup> See data at Annex B

<sup>50</sup> <https://www.insidehousing.co.uk/news/news/welsh-sector-pledges-to-double-housebuilding-53239>

<sup>51</sup> <http://gov.wales/docs/statistics/2017/170614-new-house-building-2016-2017-revised-en.pdf>

<sup>52</sup> <http://lle.gov.wales/map/fuelpoverty>

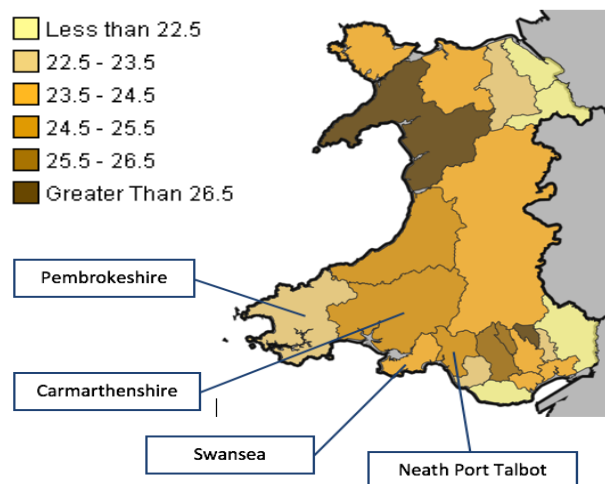


Figure 3 – Map of fuel poverty in Wales

Local authority area	Total households	Fuel poor households	Fuel poor %
Pembrokeshire	51,761	12,083	23%
Carmarthenshire	76,771	18,934	24%
Swansea	100,787	24,394	24%
Neath Port Talbot	58,780	14,450	24%
<b>TOTAL</b>	<b>288,099</b>	<b>69,861</b>	<b>24%</b>

Table 1 – Fuel poor households

By comparison fuel poverty in other areas of the UK is as follows:<sup>53</sup>

- All Wales: 23%
- All England: 11%
- All Scotland: 35%
- All Northern Ireland: 42%

The Swansea Bay City Region therefore has a slightly higher percentage of fuel poor households than the Welsh average and more than double the English average. This is exacerbated by lower household incomes and higher energy prices in Wales. The existing approaches for addressing fuel poverty within the region are Welsh Government Warm Homes programme (Nest and Arbed), Local Authority Renewal Areas, Warm Wales, Innovative Housing Programme, Energy Company

<sup>53</sup> <http://www.nea.org.uk/the-challenge/fuel-poverty-statistics/>



Obligation, Vibrant and Viable Places (Welsh Government Regeneration Programme).<sup>54</sup>

There are direct health impacts from cold housing and fuel poverty:<sup>55</sup>

- Countries which have more energy efficient housing have lower Excess Winter Deaths (EWDs)
- There is a relationship between EWDs, low thermal efficiency of housing and low indoor temperature
- EWDs are almost three times higher in the coldest quarter of housing than in the warmest quarter (21.5% of all EWDs are attributable to the coldest quarter of housing, because of it being colder than other housing)
- Around 40% of EWDs are attributable to cardiovascular diseases and around 33% to respiratory diseases — There is a strong relationship between cold temperatures and cardio-vascular and respiratory diseases
- Children living in cold homes are more than twice as likely to suffer from a variety of respiratory problems than children living in warm homes
- Mental health is negatively affected by fuel poverty and cold housing for any age group — More than 1 in 4 adolescents living in cold housing are at risk of multiple mental health problems compared to 1 in 20 adolescents who have always lived in warm housing

#### **2.2.4 Energy production and demand**

Wales is part of an interconnected European electricity network, with flows into and out of the country. The country generated an estimated 38.8 TWh of electricity in 2016 and consumed approximately 16.1 TWh. Wales is, therefore, a net exporter of electricity.

Of the estimated 38.8 TWh of electricity that was generated in Wales in 2016, 6.9 TWh was from renewables. Electricity generation from renewables has increased rapidly in recent years, having doubled in the last five years.

In 2017, the Welsh Government announced a target of meeting 70% of electricity demand from Welsh renewable sources by 2030. Wales has made good progress towards meeting this target, with an estimated 43%

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<sup>54</sup> See Annex C for descriptions of these programmes

<sup>55</sup> [https://friendsoftheearth.uk/sites/default/files/downloads/cold\\_homes\\_health.pdf](https://friendsoftheearth.uk/sites/default/files/downloads/cold_homes_health.pdf)

of electricity consumption in Wales met by renewable generation in 2016. However, considerable network, market and policy challenges remain in closing the gap to the 70% target.<sup>56</sup>

Total energy consumption has been falling since 2005. This downward trend may be due, in part, to the economic downturn. It is also possible that improved energy efficiency measures may have had some impact in more recent years, although it is not possible to separately identify the impact of these factors.<sup>57</sup>

### **2.2.5 Carbon emissions**

When local authority emissions are aggregated across the UK, estimated total CO<sub>2</sub> emissions decreased by around 27 percent since 2005 (the earliest year for which data are available at local authority level) – falling from 531 million tonnes to 387 million tonnes. While emissions have decreased over time there have been periods of fluctuation, with emissions increasing between 2009 and 2010 (largely due to exceptionally cold weather in 2010 and relatively low emissions in 2009 as a consequence of economic factors) and between 2011 and 2012 (largely due to variations in temperature).

Wales' CO<sub>2</sub> per capita emissions are higher compared to other regions due to large CO<sub>2</sub> per capita emissions from the industrial and commercial sector reflecting the high level of industrial emissions compared to the population.<sup>58</sup> Neath Port Talbot showed a 7% increase in emissions between 2005 and 2015 due to changing activity at large industrial installations.

Carbon emissions from residential properties account for 8% of all carbon emissions in Wales and there has been an overall reduction of 28% in these emissions since the base year (1990), partly due to a change in fuel mix from coal to natural gas and energy efficiency measures.<sup>59</sup>

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<sup>56</sup> <https://www.regensw.co.uk/energy-generation-in-wales>

<sup>57</sup> <http://gov.wales/docs/statistics/2015/150225-energy-generation-consumption-2013-en.pdf>

<sup>58</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/623015/2005\\_to\\_2015\\_UK\\_local\\_and\\_regional\\_CO<sub>2</sub>\\_emissions\\_statistical\\_release.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/623015/2005_to_2015_UK_local_and_regional_CO2_emissions_statistical_release.pdf)

<sup>59</sup> (based on 2014 data):

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/573221/Greenhouse\\_Gas\\_Inventory\\_for\\_England\\_Scotland\\_Wales\\_and\\_Northern\\_Ireland\\_1990\\_2014.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/573221/Greenhouse_Gas_Inventory_for_England_Scotland_Wales_and_Northern_Ireland_1990_2014.pdf)

### **2.2.6 Existing energy efficiency programmes**

Large scale whole-house retrofit programmes can reduce energy needs and provide affordable warmth which contributes to healthy living and improved wellbeing. However, these must be carried out in a professional way to approved quality assurance standards.

There have been previous attempts to prove and implement homes as power stations and deliver at scale at a regional level which have had limited success due to uncoordinated and sporadic funding, the lack of a professional and coordinated approach and lack of skills development resulting in short-term programmes with potentially poor outcomes.

The following programmes operate in the region and aim to address fuel poverty:

- Welsh Government Warm Homes – Arbed and Nest
- Local authority renewal areas
- Warm Wales Limited
- ERDF funded Low Carbon Research Institute (LCRI) retrofit programme
- WG Innovative Housing Programme (IHP)
- ECO
- WG Vibrant and Viable Places
- WG Targeted Regeneration Investment programme (TRI)

The HAPS programme aims to ensure that all existing energy improvement programmes will be aligned and synchronised to the HAPS programme. This will add value to existing programmes and maximise funding and resources.

### **2.2.7 Supply chain and support networks**

At present, there is no existing coordinated supply chain and skills specifically linked to energy efficient homes. The Department for Business Innovation and Skills published a study<sup>60</sup> which showed that construction supply chains are highly fragmented, and the level of fragmentation increases in supply chains that are directly involved in the

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<sup>60</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/252026/bis-13-1168-supply-chain-analysis-into-the-construction-industry-report-for-the-construction-industrial-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/252026/bis-13-1168-supply-chain-analysis-into-the-construction-industry-report-for-the-construction-industrial-strategy.pdf)

delivery of construction work on site. The implications of a fragmented supply chain include relatively high transaction costs, increased requirements for management input and coordination of activities on site and fewer opportunities to drive out waste or reduce cost.

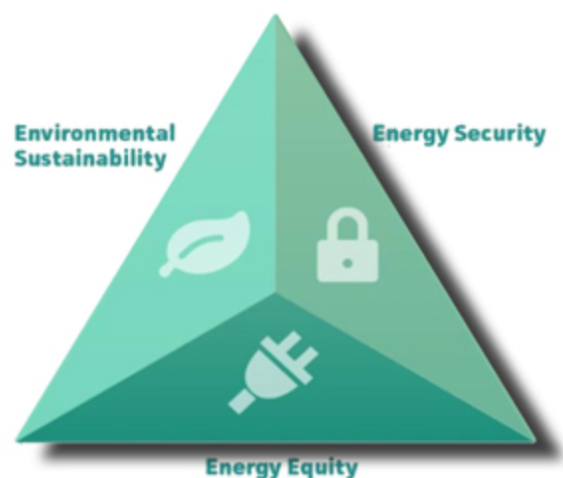
The study also found evidence that challenging trading conditions, very competitive bidding for work and use of tougher commercial terms (related to payment and risk transfer) is contributing to a reduction of levels of cohesion in the industry.

In relation to supply chains for the retrofit market, a recent report indicated that the current supply chain does not have the capacity to deliver domestic retrofit on the scale required to meet 2020 carbon emissions targets and even at current levels of activity there are supply chain constraints.<sup>61</sup>

### Part 2.3 Business needs

The aim of this Business Needs section is to determine what needs to change in order for the SBCR to transition from where it is now (as set out in the 'Existing Arrangements') to the point where it is able to deliver upon the 'Investment Objectives' outlined in part 2.1.

The Business Needs represent the gap between the desired outcomes as articulated by the Investment Objectives, and the Existing Arrangements, expressed as problems with the *status quo* and opportunities for change, as detailed below.



<sup>61</sup> [www.regensw.co.uk/Handlers/Download.ashx?IDMF=d033f3ea-c1c8-442a-8a49-8aa75dd7595f](http://www.regensw.co.uk/Handlers/Download.ashx?IDMF=d033f3ea-c1c8-442a-8a49-8aa75dd7595f)

The ‘energy trilemma’ summarises the business needs and describes three core dimensions of energy sustainability – energy security, energy equity, and environmental sustainability.

These three goals constitute a ‘trilemma’, entailing complex interwoven links between public and private sectors, governments and regulators, economic and social factors, national resources, environmental concerns and individual behaviours.

Delivering policies which simultaneously address energy security, universal access to affordable energy services and environmentally sensitive production and use of energy is a formidable challenge facing government and industry. The ‘Energy Trilemma’ provides a clear framework within which to deliver energy transformation and make sustainable energy systems a reality.<sup>62</sup>

There is a need to provide safe, efficient and affordable homes and address the energy trilemma which is one of the most pressing universal themes and global challenges of our time and addressing these issues is a key business need and presents the most compelling reason for investment via the following mechanisms:

Trilemma Element	Business need
Security	Self-sufficiency
Sustainability	Enhanced energy/carbon performance with reduced dependency on finite energy sources
Equity	Release of disposable income, alleviation of fuel poverty

The key problems with the *status quo* and opportunities of change relate to the energy trilemma; the unmet need for housing and boosting the regional economy. The business needs for each are shown in the Figure below and discussed further in the following section:

<sup>62</sup> <https://www.worldenergy.org/work-programme/strategic-insight/assessment-of-energy-climate-change-policy/>

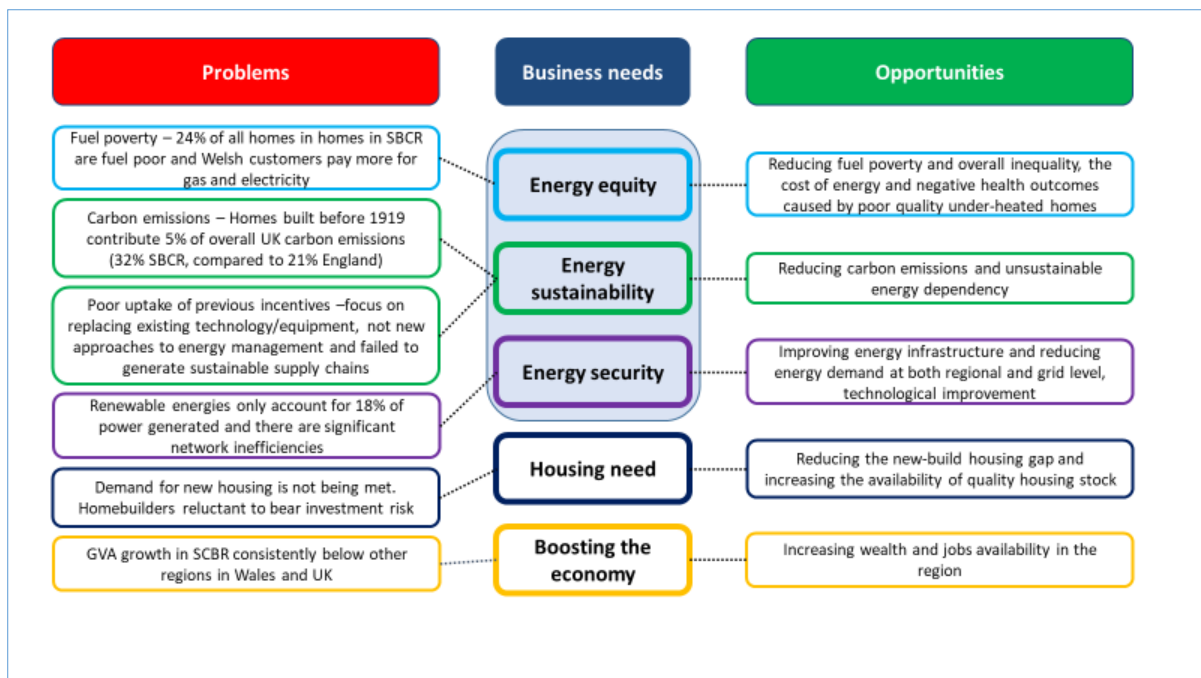


Figure 4 – Business needs

In addition to the energy trilemma, the follow subsections summarise the needs of the existing arrangements:

### 2.3.1 The Needs of the Swansea Bay City Region Economy

#### ***Potential impact of the Swansea Bay City Deal proposal***

Swansea University prepared a Swansea Bay City Region ‘City Deal Proposal Impact Appraisal’<sup>63</sup> in February 2017, to appraise the potential impact of the ‘Internet Coast’ through the integrated portfolio of programme proposals. It examined the benefits and impacts in the following areas:

- Direct job creation and GVA uplift through development of targeted industries within the region for each project proposal, together with supply chain and wider economic benefits
- Thematic impacts from each '*Internet of...*' theme, including strategic and social impacts
- Ongoing impact of the Internet Coast initiative

The report concluded:

<sup>63</sup> Swansea Bay City Region, Internet Coast: Phase 1, City Deal Proposal Impact Appraisal, February 2017

**‘A programme investment of £1.3 billion over 15 years would increase regional GVA by £1.8 billion and add 9,000 jobs in the region’.**

To avoid double counting of benefits and their impact, the appraisal focused on direct relevant sector employment growth, with further benefits such as skills improvements in the wider sector considered separately.

Sensitivity analysis for each individual project proposal considered:

- A baseline scenario with parameters for additionality and indirect effects suggested from baseline data and prior project experience
- Pessimistic and optimistic scenarios testing lower and higher levels of additionality, catering for uncertainty regarding levels of deadweight, substitution or displacement which may be involved
- Potential delay or advance in benefits delivery factored separately through further sensitivity analysis for theme/combined Internets at the project level

Energy and economy are inextricably linked, and policy-makers often refer to a future ‘low carbon economy’, which has the potential to be a vehicle for economic growth. In 2015, the low carbon and renewable energy sector in Wales provided 11,000 jobs, with an annual turnover of £1.78bn.

The ‘Internet of Energy’ theme positions the SBCR as a living ‘test bed’ of energy innovation and development to foster the growth of a local supply chain. This could create an estimated 4,500 jobs over a five-year period and provide an opportunity to test the innovative housing and energy solutions technology from the SPECIFIC research programme on a commercial scale. This could be achieved by:

- Incorporating health and digital and smart/intelligent applications where cost effective and affordable
- Addressing the problems the Warm Homes programme faced in terms of delivering whole-house approaches consistently across small variations and large numbers of properties.<sup>64</sup> Finding the most appropriate combination of retrofit products and solutions for the area, residents and buildings is key to reducing cost variability and overrun, consistent with TSB's Retrofit for the Future guide<sup>65</sup>
- Reducing the average cost of a whole house retrofit from £25,000 (based on LCRI retrofit costs) to below £20,000 (through scaling) and

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<sup>64</sup> Patterson, J.L., 2016, Evaluation of a Regional retrofit Programme to Upgrade Existing housing Stock to Reduce Carbon Emissions, Fuel Poverty and Support the Local Supply Chain, *Sustainability*, 2016 (8), 1261

<sup>65</sup> Technology Strategy Board, Retrofit for the Future – Reducing Energy Use in Existing Homes - A Guide to Making retrofit work, 2014

although costs for retrofitting properties are declining depending on who carries out the retrofit and how well the price is controlled, this is still a challenging measure<sup>66</sup>

Cost profiling for both new build and retrofitting in Tranche 1 pathfinder developments (with the Pobl Hafod development which is already underway in Neath being the first testing platform) would provide proof of concept for these approaches at a regional level, before follow-on developments across the other three local authority areas.

### **2.3.2 The need for homes and housing**

#### ***Increasing availability of quality housing stock***

There is a shortage of new housing and the existing new build programme does not meet the new build housing needs and demand across the region. It is estimated that between 3,692 and 3,950 new houses a year are required in the Swansea Bay City region, but the current completion rate is only 1,321 per year.

House builders have been reluctant to integrate leading edge technology into housing developments on the grounds of costs and expected returns on investment and there is a low supply of new housing on the market with leading energy demand management features. Furthermore, there are also low levels of take up on retrofitting in the private sector as was seen with the 'Green Deal'.<sup>67</sup>

There is interest in the development of energy positive houses, with the Chair of Ofgem visiting the SOLCER house in March 2018<sup>68</sup>. The Minister of State for Energy and Clean Growth, Claire Perry and the Secretary of State for Wales, Alun Cairns visited in July 2018. The design is based around reducing energy demand, renewable supply and energy storage. This can be applied to groups of housing and eventually to other building types. This activity can contribute to affordable new build programmes, creating supply chain industries and construction related jobs.

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<sup>66</sup> Jones, P., et al, Preparation for an energy positive community in the UK: modelling-led innovative housing Practice in Wales, Proceedings of the 36<sup>th</sup> International Conference on Passive and Low Energy Architecture – Cities, Buildings, People: Towards Regenerative4 Environments, Los Angeles, 11-13 July 2016

<sup>67</sup> <https://publications.parliament.uk/pa/cm201617/cmselect/cmpublic/125/125.pdf>

<sup>68</sup> <https://www.ofgem.gov.uk/system/files/docs/2018/03/dg14marchspeech-final.pdf>



### **2.3.3 The need to reduce fuel poverty in the region**

At least 24% of all homes in the Swansea Bay City Region are considered to be fuel poor.<sup>69</sup> With fuel price rises in recent years, an energy efficiency score of at least 81 against the Standard Assessment Procedure (SAP) is necessary to proof homes against fuel poverty. Increasing the SAP score of the housing stock represents a big opportunity to reduce fuel poverty in the region.

#### ***Health opportunities***

Research shows how home energy efficiency improvements may have a positive impact on health and lower health service use among people who had benefited from the Welsh Government Warm Homes Nest scheme.<sup>70</sup> The study used NHS data to compare health service use of people who had benefited from Nest home energy improvements and a control group who were eligible for improvements but were still waiting for these to be completed.

The research found GP events for respiratory illness fell by almost 4% for those who had benefitted from Nest improvements, while these rose by almost 10% in the control group over the same period.

A similar pattern was found in relation to asthma events, with a 6.5% decrease in the recipient group and a 12.5% increase in the control group for the same period.

#### ***Standard Assessment Procedure (SAP)***

The SAP is a government backed measure of the energy performance for dwellings. It provides standardised metrics and adjustments for differing property constructions, materials and layouts, to allow disparate properties' energy consumption to be compared. It outputs an environmental impact factor between 1 and 100, with higher numbers indicating greater performance and energy efficiency.

A SAP65 score is the minimum standard to achieve the Welsh Housing Quality Standard and was originally viewed both in Wales (and nationally) as a route to proofing housing stock against fuel poverty. In March 2017, 92% of social housing was compliant with the quality standard (or subject to an acceptable fail).<sup>71</sup> Welsh Government have indicated that they may

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<sup>69</sup> <http://lle.gov.wales/map/fuelpoverty>

<sup>70</sup> <http://gov.wales/statistics-and-research/fuel-poverty-data-linking-project/?lang=en>

<sup>71</sup> <http://gov.wales/statistics-and-research/welsh-housing-quality-standard/?lang=en>

seek a SAP target of between 80 and 89 to be reached by 2030 across all tenures throughout Wales to achieve the aims of the Decarbonisation programme. Any significant increase in the SAP score for existing properties is unlikely to be achieved through fabric only improvements, and each property would need a suite of renewable technologies such as the HAPS concept to achieve this target.

As of 1<sup>st</sup> April 2018 it was illegal for a private landlord to let a property with an energy performance certificate (EPC) rating lower than E to a new tenant and from 1<sup>st</sup> April 2020 this will apply to all existing tenancies.

SAP65 is an ambitious target (UK average rating was 56.7 in 2011).<sup>72</sup> Fuel price rises since 2004 mean that a SAP81 rating is likely to be required to achieve the goal of proofing homes against fuel poverty.<sup>73</sup>

### **2.3.4 The need to address energy production and demand**

#### ***Reducing unsustainable energy dependency***

The UK's energy system may still be dominated by fossil fuels, but it has never been less reliant on carbon intensive energy at any point in its modern history. In the third quarter of 2016, UK dependency on fossil fuels fell 2% year-on-year to 79%, down from almost 88% at the beginning of 2013.

It is a stark illustration of the radical change that has taken place in the country's energy system over the last few years, with low-carbon energy now making up a record 50% of the UK's electricity mix while the share of coal on the grid has fallen to just 4%.

The latest data suggest the UK government is on track to meet its 2025 target of phasing out unabated coal power from the grid.<sup>74</sup>

The Welsh Government is establishing a regulatory framework for decarbonisation, including five-year carbon budgets and interim targets, in addition to the existing 2020 and 2050 targets. As a result, fossil fuel generation will need to be reduced. Coal generation is expected to further reduce and be phased out of the UK electricity system by 2025. The owners of Aberthaw B power station have switched a small portion of their

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<sup>72</sup>[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/345141/uk\\_housing\\_fact\\_file\\_2013.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/345141/uk_housing_fact_file_2013.pdf)

<sup>73</sup> HoC Environment Food and Rural Affairs Committee - HC (2007-08) 1099, Ev 19

<sup>74</sup> <https://www.businessgreen.com/bg/news/3003371/uk-dependency-on-fossil-fuels-hits-record-low>

feedstock to biomass and will only generate electricity when needed, such as in the winter months.<sup>75</sup>

### ***Improving grid Infrastructure***

A large and continuing barrier to the expansion of renewable energy sources is the available capacity of grid or regional level storage. Research suggests that providing 2GW of storage in the UK by 2020 could create up to 10,000 jobs. The grid contains around 30GWh of storage, mainly pumped hydro storage (including 9GWh in Dinorwig in Snowdon), against a typical demand range of 40-45GW and peak demand of 60GW (UK wide).

Providing or increasing grid storage reduces the requirement for spinning reserve capacity (spare and unused capacity in existing power stations, held in reserve at power stations across the grid), increasing grid efficiency and resilience and enhancing the effectiveness of renewable sources, which Wales has in increasing capacities.

A HAPS concept property could store its own energy. For example, the SOLCER house has the potential to store up to 6.9Kwh of power.<sup>76</sup>

More recent examples have electrical storage capacities of 14kWh, and larger batteries are being used in retrofits, including Tesla Wall.

Achieving the SBCR target of 3,300 new homes across 5 years would add 22.7Mwh of storage to the grid and would therefore make a marginal contribution to the UK's energy resilience however, importantly, it would demonstrate the concept for scalability.

### ***Welsh Government Building Regulations Part L (Energy Efficiency)***

It is likely that the 2019 issue of the Welsh regulations will see building fabric standards, thermal bridging and air permeability set at a level that is unlikely to change in any future revisions. The 2019 issue will likely take fabric standards and air permeability as low as is economically and technically feasible. Thus, once fabric, thermal bridging and air permeability is set at its maximum limits it is logical that the only way to lower CO<sub>2</sub> emissions beyond those levels will be the use of low and zero carbon technologies and renewable sources.

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<sup>75</sup> <http://gov.wales/docs/desh/publications/171207-energy-generation-in-wales-en.pdf>

<sup>76</sup> <http://www.buildup.eu/en/practices/cases/solcer-house-wales-first-low-cost-positive-energy-house>

To a large extent, this is already the case under Part L 2013 where renewable energy systems are commonly specified to meet that standard (i.e. the Target Emissions Rate under Part L 2013 is difficult to achieve without renewable energy and/or low carbon systems). Therefore, in principle, starting to design and build homes towards the 'Homes as Power Stations' concept would mean that providers are 'ahead of the curve' in terms of the likely regulatory compliance required under the 2019 revision to Part L. As a regulatory minimum standard, the revised Part L is very unlikely to make the HAPS concept mandatory, but the standard will be a step further towards that goal.

The Welsh Government has pledged to implement a landmark EU policy that requires all new public buildings completed after 31 December 2018 to be nearly zero energy buildings (nZEBs), with all new buildings following by the end of 2020, while also setting nZEB targets for refurbishments. The Welsh Government has said that all requirements of Directive 2010/31/EU have been transposed to date and the intention is to continue to do so and a forthcoming review of energy standards is intended to deliver nearly zero energy requirements in line with the directive.<sup>77</sup>

The HAPS concept closely aligns with the aspiration for nZEB's. However how to meet the nZEB standard is largely undefined. To be true zero carbon sites, CO<sub>2</sub> emissions from new buildings must be reduced by 100% (to include offsetting emissions using renewable energy generated in the home – net zero carbon). This may not be possible at all sites. If the Government pursues a nZEB standard, where a reduction of CO<sub>2</sub> from new buildings of 100% is not achievable, it is possible that a combination of efficient design, low carbon measures and other 'allowable solutions' may be an option. For example, a minimum of 70% may be achieved by site measures (energy efficient design and renewables) and up to 30% could be achieved by 'allowable solutions'. Allowable solutions will probably not be a cheap alternative, as they could involve funding zero carbon measures in the local community such as district heating schemes or funding a community energy fund.

It is not clear how accounting for carbon savings under allowable solutions would be achieved and it could be a resource/cost burden. This concept is therefore still subject to definition and refinement; however, the

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<sup>77</sup> <https://passivehouseplus.ie/news/government/exclusive-uk-may-deliver-eu-sustainable-building-targets-in-spite-of-brexit-while-scotland-wales-commit>

Government's position on nZEBs and the HAPS principle could closely align with future requirements.

### **2.3.5 To need to reduce carbon emissions**

The UK is committed to achieving an 80% reduction in CO<sub>2</sub> emissions by 2050. Housing currently accounts for 29% of the UK's total energy consumption, so the built environment and housing will need to be a key focus to achieve these targets.

Carbon emissions from residential properties account for 8% of all carbon emissions in Wales and there has been an overall reduction of 28% in these emissions since the base year (1990), partly due to a change in fuel mix from coal to natural gas and energy efficiency measures.<sup>78</sup>

The 'Smarter Energy Future for Wales' (March 2016) report recommends urgent revision of Building Regulations to ensure that all new houses are built to 'near zero' energy standards. Experience with the SOLCER house has shown that the key is environmental technologies being integrated into the fabric during construction. The cost is estimated to be £25,000 more expensive, at a total cost of £125,000. However, building at scale UK could bring that down to £100,000, a comparable price to other three-bed new-builds. Once built, there would be an estimated saving of £1,000 per year – for the first 10 to 15 years when the mechanical equipment would probably need to be replaced.<sup>79</sup>

Retrofitting energy efficiency measures into existing housing stock also has a crucial part to play and Welsh Government schemes such as Warm Homes are key to improvements.

#### ***Innovation opportunities***

Innovation and smart management of domestic energy will be driven by:

- Improving connectivity infrastructure: Internal/external
- Smart metering, appliances, technology and home management systems (including monitoring capabilities)
- Battery storage

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<sup>78</sup> (based on 2014 data):

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/573221/Greenhouse\\_Gas\\_Inventory\\_for\\_England\\_\\_Scotland\\_\\_Wales\\_and\\_Northern\\_Ireland\\_1990\\_\\_2014.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/573221/Greenhouse_Gas_Inventory_for_England__Scotland__Wales_and_Northern_Ireland_1990__2014.pdf)

<sup>79</sup> <https://www.ribaj.com/products/solcer-budget-smart-house>

- Use of data from new housing to evaluate and prove HAPS concept – analytical platform

Lack of progress in developing these areas has created barriers to uptake of previous incentives to improve energy sustainability; however, innovative approaches to reduce carbon emissions and dependency on unsustainable energy sources are being developed. One example is the SPECIFIC programme:

SPECIFIC – established in 2011 – is a National Innovation Centre based in the Swansea Bay City Region, developing the concept of buildings as power stations and addressing the challenge of low carbon electricity and heat by enabling buildings to generate, store and release their own energy, in one system, using only the energy from the sun.

SPECIFIC is developing next generation solar technologies, improving performance and enabling manufacture at scale, building full-scale demonstrators using existing technologies to prove the concept works. It brings together industry and government to enable new technologies to progress to the market, acting as a catalyst for change in the construction sector.

SPECIFIC is led by Swansea University, with Strategic Partners Akzo Nobel, NSG Pilkington, Tata Steel and Cardiff University and a wide range of business and academic partners to engage with industry in the application of new technology, developing associated supply chains and homes as power stations demonstration projects.

Phase 2 of the programme began in April 2016 with £26m from the Engineering and Physical Sciences Research Council, Innovate UK and the European Regional Development Fund through the Welsh Government, plus investment from Swansea University, industrial partners and matched funding from Cardiff University.

The programme will create new opportunities for an emergent industry embracing a range of sectors. The programme is currently engaged with 50+ industry partners from small SMEs through to large corporate partners who share an interest in developing solutions in Wales for global export.

The SPECIFIC programme provides technologies to a concept named the Smart Operation for a Low Carbon Energy Region (SOLCER) house – the UK's first energy positive house, designed and constructed by Cardiff University, with a 1.75:1 grid export-to-input ratio, with a 6.9KWh Li-Ion battery; allowing energy storage and returns to the grid at times of higher demand. The design also incorporates lower levels of embodied CO<sub>2</sub> in its build, at 340kgCO<sub>2</sub>/m<sup>2</sup> compared with a standard benchmark of 500kgCO<sub>2</sub>/m<sup>2</sup>. This is aligned with Passivhaus design adopted elsewhere in the region, which can reduce energy costs for space heating to around £25 per annum year, based on a SAP equivalence of 88.

### **2.3.6 The need to learn lessons from existing energy efficiency programmes**

There have been previous attempts to prove and implement homes as power stations and deliver at scale at a regional level which have had limited success due to uncoordinated and sporadic funding, the lack of a professional and coordinated approach and lack of skills development resulting in short-term programmes with potentially poor outcomes.

There is a need for a coordinated programme of activity, at scale with associated skills, supply chain and monitoring and evaluation.

### **2.3.7 The need to create supply chain and support networks**

Until now, the difficulties of applying consistent quality control across regional and national programmes has been a barrier to establishing robust supply chains and achieving consistent performance, which is why there is currently no coordinated supply chain and skills linked to energy efficient homes.

## Summary of business needs

The table below summarises the gap between the existing arrangements and the Investment Objectives:

Existing arrangements (where we are now)	Investment Objectives (where we want to be)	Business needs (the 'gap')
<ul style="list-style-type: none"> <li>▪ Fragmented and variable quality retrofitting of existing properties</li> <li>▪ Limited uptake of passive or energy positive homes in private sector</li> <li>▪ Insufficient new properties being built</li> </ul>	<p><b>To future proof at least 10,300 properties (7,000 retrofit, 3,300 new build) within five years to increase 'affordable warmth' and reduce fuel poverty</b></p>	<ul style="list-style-type: none"> <li>▪ Extensively surveyed and quality-controlled retrofit programme that considers property and local variances.</li> <li>▪ Proof of concept for new-build housing with cutting-edge energy reduction and storage principles</li> </ul>
<ul style="list-style-type: none"> <li>▪ Relationship between early winter deaths and cold housing/fuel poverty</li> <li>▪ Around 40% of early winter deaths are attributable to cardiovascular diseases and around 33% to respiratory diseases — There is a strong relationship between cold temperatures and cardiovascular and respiratory diseases</li> </ul>	<p><b>To improve health and wellbeing and reduce the burden on health and social services</b></p>	<ul style="list-style-type: none"> <li>▪ Combination of retrofit energy saving measures, fuel switching and new build housing to minimise fuel poverty, and warmer homes in winter</li> </ul>
<ul style="list-style-type: none"> <li>▪ Variety of initiatives and projects which are inconsistent and with varying degrees of success</li> </ul>	<p><b>To deliver a sustainable (commercially viable), cost effective and holistic housing programme</b></p>	<ul style="list-style-type: none"> <li>▪ Increase certainty and reduce commercial risk for private sector new-builds by demonstrating technology at scale in the public and RSL sectors</li> </ul>
<ul style="list-style-type: none"> <li>▪ Variety of initiatives and projects with inconsistent measures and evaluation of success criteria</li> </ul>	<p><b>To invest in the professional evaluation of the quality and experience of solutions and understanding of the application of new technologies</b></p>	<ul style="list-style-type: none"> <li>▪ Increase certainty and reduce commercial risk through proven programme management methodology accompanied by professional evaluation and review</li> </ul>
<ul style="list-style-type: none"> <li>▪ Uptake poor of energy efficiency improvements and initiatives by homeowners in retrofit accommodation</li> </ul>	<p><b>To promote awareness of how key stakeholders (particularly energy users) optimise their</b></p>	<ul style="list-style-type: none"> <li>▪ Improve marketing and communication to promote the benefits of energy efficient housing and highlight benefits of</li> </ul>



<ul style="list-style-type: none"> <li>Benefits and savings not fully realised</li> </ul>	<p><b>interface with the technology</b></p>	<p>compliance with Government standards</p>
<ul style="list-style-type: none"> <li>Housing and built environment accounts for 29% of UK emissions</li> <li>Housing accounts for 15% of emissions in Wales</li> </ul>	<p><b>To support measures to mitigate climate change by reducing CO<sub>2</sub> emissions and energy consumption</b></p> <p><b>Predicted annual CO<sub>2</sub> reduction figures:</b></p> <ul style="list-style-type: none"> <li><b>Retrofit - 9,933 tonnes CO<sub>2</sub> annum</b></li> <li><b>New build - 9,165 tonnes CO<sub>2</sub> annum</b></li> </ul> <p><b>Figures assume 100% rollout</b></p>	<ul style="list-style-type: none"> <li>Substantially reduce energy demand through passive and energy-positive homes</li> <li>Make better use of Wales' considerable renewable resources through distributed grid level storage</li> </ul>
<ul style="list-style-type: none"> <li>Insufficient grid level storage to curb peak demand and demand side responsiveness</li> </ul>	<p><b>To create an energy system that is compatible with future smart developments, maximising benefits to the occupant/owner and reducing pressure on the grid by providing local energy generation and security</b></p>	<ul style="list-style-type: none"> <li>The need for better storage to curb peak demand</li> <li>The need to improve demand side responsiveness</li> </ul>

### Part 3: Potential business scope and key service requirements

#### Part 3.1 Potential Scope

Part 3 of this Strategic Case starts the process of considering the potential scope of the HAPS programme based on the changes required to satisfy the identified business needs, in particular:

- The need to facilitate the take up of renewable technologies and associated design aspects in new housing developments and retrofit programmes carried out by the public, private and third sector
- The need to develop and seek to attract new sector supply chains incorporating leading research and high value manufacturing and construction operations
- The need to address fuel poverty

- The need to monitor and evaluate a coordinated programme of activity
- The need to ensure the region has an appropriately skilled workforce in renewable technologies

The scope of this work is defined by the Swansea Bay City Deal and the geographic area of the four local authorities that have signed the joint agreement.

### HAPS overview

The HAPS programme is a pioneering programme of activity which aims to facilitate the adoption of energy positive, low carbon and renewable technologies in new build and retrofit developments.

The programme aims to demonstrate the benefits of adopting the ‘homes as power stations’ approach i.e. energy positive homes, through a combination of design approaches and flexible technology solutions.

The HAPS programme is an **approach** to energy positive homes not a specific technology. The technologies used in the design solutions are already known – the innovative aspect to this programme will be the coordinated approach to combining design and technologies at scale, with ongoing monitoring and evaluation to maximise the benefits of the approach.

The proposed scope of **activity** of the HAPS programme is as follows:

<b>HAPS scope</b>	<b>Activity</b>
<b>Facilitate the adoption of the HAPS approach in new build developments</b>	<p>Facilitate the adoption of energy positive, low carbon and renewable technologies and design in new build developments.</p> <p>To develop a cost effective, flexible design approach.</p> <p>The aim is to demonstrate the benefits in the public sector and Regional Social Landlord sector and then facilitate the adoption of the homes as power stations approach with private sector housebuilders.</p>
<b>Facilitate the adoption of the HAPS</b>	<p>Facilitate the adoption of energy positive, low carbon and renewable technologies and design in retrofit developments.</p>

<p><b>approach in retrofit developments</b></p>	<p>To develop a cost effective, flexible design approach.</p> <p>The aim is to demonstrate the benefits in the public sector and Regional Social Landlord sector and then facilitate the adoption of the homes as power stations approach with private sector housebuilders.</p>
<p><b>Develop an indigenous sustainable supply chain</b></p>	<p>The HAPS programme includes funding for developing a sustainable supply chain in line with State aid guidelines.</p> <p>The programme team will work with key partners, including Welsh Government, to develop a sustainable indigenous supply chain by identifying local companies with the capability to be developed to be part of a renewable supply chain and be best placed to deliver community benefits and economic outcomes.</p>
<p><b>Establish a regional targeted financial incentives fund</b></p>	<p>The targeted financial incentives fund will provide approximately £1k per property gap funding depending on the scheme – and will be determined to optimise investment. The financial incentives will not act as a subsidy for every development. It will be an incentive scheme at the start of the programme to incentivise the adoption of the HAPS approach (similar to IHP). The fund will be State aid compliant.</p>
<p><b>Development of a skilled workforce</b></p>	<p>The HAPS programme has already established links with FE and HE, together with the Skills and Talent City Deal project.</p> <p>The Renewable Energy Skills Forum (Wales) is currently mapping the skills and experience currently available in renewable technologies to develop a competency and skills matrix, for a qualification routeway in Wales. It is looking at existing work through SPECIFIC and RSLs, in particular, as well as taking account of UK and local companies, developing an expertise in renewables. This would allow the Skills Matrix, to reflect the broad nature of the renewables sector.</p>

<p><b>Programme monitoring and evaluation</b></p>	<p>The HAPS programme includes funding to properly monitor and evaluate the programme.</p> <p>Through its monitoring and evaluation, the HAPS programme will provide the evidence for using a variety of renewable technologies and to demonstrate the viability of adopting the homes as power stations approach at scale, moving away from one off demonstrators in both new build and retrofit programmes.</p> <p>The monitoring and evaluation will focus on three key areas:</p> <ul style="list-style-type: none"> <li>▪ Energy efficiency (to provide evidence of costs and benefits of a range of design solutions for a range of tenure and site location)</li> <li>▪ Health and wellbeing (in partnership with Public Health Wales)</li> <li>▪ Social science (in partnership with academia to consider how people interact with the technologies across a wide demographic)</li> </ul>
<p><b>Develop a flexible design approach</b></p>	<p>The aim of the regional HAPS programme is to coordinate the approach to delivering smart, low carbon, energy efficient homes by encouraging the use of a range of renewable technologies incorporated with a design approach appropriate to local circumstances e.g. site location, tenure etc. It is not a 'one size fits all' technology solution, it is a flexible and adaptable design strategy offering a range of technology and design solutions based on a number of factors including site location and tenure.</p> <p>The design and technology solutions will be tested and refined during the 5 year programme, allowing the design solutions to adapt to technological advances. The flexible design strategy will be developed to allow the HAPS approach to be adapted to a variety of challenges and constraints associated with sites and tenure across the region.</p>

A few examples of this flexible, design approach are detailed below:

Hafod site, Neath – this is an example of solar alignment where the topography of the site has determined the use of technologies

Another example is of homes which have been installed with east and west facing photovoltaic panels (PVs) to capture the morning and evening sun

The HAPs regional programme shares the same ambition as the Active Building Centre focus i.e. to accelerate market adoption of energy positive homes to provide cleaner, cheaper and more resilient energy supply.

### **Design approach**

The fundamental design principles underpinning the HAPS approach are:

- Whole house approach
- Fabric first approach
- Passive design where feasible
- Electrical and heat generation
- Storage (electrical and heat)
- Optimisation of energy performance

### **Overview of current technologies**

The following technologies will be incorporated into the flexible design solutions:

- SIPs panels (Structural Insulated Panels)
- Solar PVs
- Transpired Solar Collector (TSC) cladding
- Integrated photovoltaic roof covering
- Air source heat pumps
- Ground water source heat pumps
- Mechanical Ventilation with Heat Recovery (MVHR)
- High levels of Insulation
- PV / Solar water heating
- Voltage optimisation

	<ul style="list-style-type: none"> <li>• Battery storage (allowing the solar energy to be collected, stored and released to meet the energy demands of the dwellings and their occupants)</li> </ul>
<b>Adoption of renewable technologies at scale and affordable</b>	<p>One of the aims of the HAPS programme is to reduce the cost of the technologies by delivering at scale and thus creating demand by incentivising others in the public and private sector to adopt the approach.</p> <p>One of the Investment Objectives is to <i>'deliver a sustainable (commercially viable), cost effective and holistic housing programme'</i></p>

*Please refer to the Management Case for more details on how the programme will be implemented.*

### **Part 3.2 Main Programme Benefits**

There are 3 main areas which illustrate the benefit, and added value of the HAPS programme:

#### **Energy**

- Energy savings and decreasing energy demand
- Local security of energy supply
- Reduce stress on the national grid

#### **Health and well-being**

- Reduction in respiratory conditions (working with Public Health Wales to develop this further and monitor the benefits)
- Warmer homes
- Improved air quality in homes via combined heating and mechanical ventilation – ensuring good air quality all year round.
- Job creation (large scale adoption of energy positive new build and retrofit homes will create major job opportunities and supply chain activity, which will deliver socio-economic benefits to the region)

#### **Social science**

- Behaviour
- Mainstream energy positive homes

Possible benefits that could arise from the successful delivery of this programme were identified in stakeholder workshops to develop this business case, and include:

Benefit no.	Benefit description	Benefit type <sup>80</sup>
1	Reduced energy spend through reducing energy consumption for residents	NCRB
2	Reduced CO <sub>2</sub> emissions through reduced energy consumption and improved renewables mix	NCRB
3	Uplift in property value from retrofit	NCRB
4	Reduction in fuel poverty	NCRB
5	Improve health and wellbeing through a reduction in respiratory and cardiovascular disease	NCRB
6	Additional gross jobs created	NCRB
7	Businesses created through development of an integrated and sustainable local supply chain	NCRB
8	Overall improvement in domestic SAP/EPC ratings	Qual
9	Increased security of supply through demand side response management	Qual
10	Increase in energy contribution to national grid <sup>81</sup>	NCRB
11	Increase in skills due to requirement for staff and training scheme	Qual

Table 5 - main benefits criteria and type

### Part 3.3 Main Programme Risks

A number of business and service delivery risks were discussed during the workshop. For each risk we have included a mitigation action together with how this risk presents a potential opportunity. The risk register will be revised during programme delivery.

The main business and service risks associated with the potential scope for this programme are shown below:

<sup>80</sup> The benefits were assessed against the following criteria: CRB – Cash releasing benefit, NCRB – Non cash releasing benefit, Qual - Qualitative

<sup>81</sup> Discussions with the National Grid are ongoing

Risk area	Mitigation	Opportunity
<b>Development risks</b>		
Resource and capacity of the programme team especially during the definition stage	Establish an experienced programme team to work with the region.	Job creation / safeguarding.
<b>Implementation risks</b>		
Being unable to develop a sustainable, indigenous supply chain	Work with key partners including Welsh Government	Local companies have the opportunity to develop and diversify
Programme slippage including delays in procurement	Robust programme management system in place.  Regular review of Risk Register	
Sufficient volume and scale of products and services are unavailable	Programme Team to maintain regular communication with renewables supply chain	
<b>Design risks</b>		
Failure of technology	National grid as back up	An opportunity to learn lessons and adapt future technologies  Continuous improvement – design feedback
Technological advancements	Steering Group and key partners to discuss	



	technological advancements	
<b>Change management/programme management risks</b>		
Failure to achieve agreed outputs/results	Robust programme management system in place.  Regular review of Risk Register	
Complex nature of retrofit leads to failure to achieve programme outcomes	Robust programme management system in place.  Regular review of Risk Register	
Lack of interest from the Private Sector	Dissemination programme to demonstrate benefits of homes as power stations	Create demand / reduce cost of renewables  Growing supply chain with associated skills  Opportunity to break down commercial barriers to building energy positive homes  Opportunity to embed design and manufacture in close proximity to the Active Building Centre. (Jon Wood to facilitate conversation with Sam Stacey)

<b>Operational risks</b>		
Land costs and availability	Local Authorities to facilitate where applicable  LDPs provide reference points.	
<b>Financial risks</b>		
Capital costs affect scheme viability	Robust programme management system in place.  Regular review of Risk Register	
Any large changes in the funding package, including public and private match funding/leverage	Robust programme management system in place.  On-going engagement with match funding partners.	HAPS is aligned to government policy, and will add value to funding sources.
Short term WG funding sources e.g. Affordable Homes Guarantees Programme (AHG), Innovative Housing Programme (IHP)	Robust programme management system in place.  On-going engagement with match funding partners.	HAPS is aligned to government policy, and will add value to funding sources.
Complexity of solutions exaggerates cost	To develop a cost effective, flexible design approach.	To develop innovative solutions within specified cost envelopes
Homeowners unable to borrow	Regional lenders to develop a lending model To consider long term costs and extra	Education programme targeted at regional lenders

	disposable income due to less energy bills RSL model to be provided as an example of borrowing	Promote energy positive home as an 'energy asset to live in' / static energy store
<b>Non – financial risks</b>		
Lack of understanding of the technology	Education programme Ensure end user has an induction and understands the technology to 'demystify the technology'	Creates a culture change and more people will want to incorporate homes as power stations approach through retrofit or new build
	The technologies used in the HAPS approach are not new and are therefore tried and tested. The industry is aware of maintenance requirements etc. Therefore there is no issue with the certainty of the long term supply of technologies and maintenance.	
Designs do not comply with approved standards, or planning and building control	Programme team to work with key partners to ensure a compliant design approach	Opportunity to develop industry standards for renewable technologies flexible design approach
Homeowners lack skills and knowledge to maximise benefits from designs	Education programme	Change in attitude to renewable technologies in the home

Skills to generate a viable supply chain are not available	Work with key partners in FE and HE to develop a sustainable skilled workforce	Diversification of the economy Job creation / safeguarding
------------------------------------------------------------	--------------------------------------------------------------------------------	---------------------------------------------------------------

### Part 3.4 Possible Programme Constraints

The programme could be subject to the following possible constraints/limitations:

Constraints
Availability of development sites
Large scale/national house builders
Capacity of installers/suppliers
Physical constraints – site topography
Industry standards
Mortgage limitations
Planning/building control
Public engagement with energy efficiency schemes
Private sector engagement
RSL engagement
Complex nature of retrofit projects
Electrical grid connections
Funding – Social Housing Grant (SHG) restrictions, Acceptable Cost Guidance, short term funding sources

### Part 3.5 Possible Programme Dependencies

Possible dependencies, upon which the ultimate success of this programme may be dependent, might include:

- The timely provision of CapEx funding from the Swansea Bay City Deal
- The successful deployment of new and existing techniques, designs and materials that would allow the programme to meet its energy positive objectives

Risks, constraints and dependencies will be managed through comprehensive programme governance arrangements.

There is a synergy between the HAPS programme and the other City Deal projects within the Swansea Bay City Deal programme. The HAPS

programme will also carefully monitor the following projects throughout the lifespan of the scheme from design to delivery to ensure synergies are established:

- Skills and Talent – it will work with the Skills and Talent programme to develop a skills base and associated training within the region which can be replicated across the rest of Wales and the UK. These skills would ensure a stable and sustainable supply chain with the necessary skills to support the sector
- Pembroke Marine – Energy Cluster will regenerate an area of Pembroke Dock to create a dedicated site which will be used as a base by marine energy developers to progress their devices from an idea to a commercial product. The site will allow developers to test, manufacture and maintain offshore renewable energy devices and will be supported by the development of a Marine Energy Test Area – a series of areas along the waterway where developers can test devices at an early stage of development
- The Pembrokeshire Wave Energy Demonstration Zone – a large offshore wave energy site which can be used by developers to test more developed devices in open sea conditions
- The Marine Energy Engineering Centre of Excellence – to coordinate and share knowledge, resource, experience and capacity between existing and future developers
- Digital Infrastructure and Test Beds – Homes as Power Stations would benefit from an innovative digital infrastructure. Investment Objective 7 relates to the development of a smart, intelligent metering and data collection aspect. The effective use of smart metering is integral to the programme as it will allow users to manage their own energy consumption and assist in the measurement of outcomes from this programme
- National Steel Innovation Centre - the use of steel coatings in the construction process. The Steel Science project, together with project SPECIFIC are integral to the development of these materials in terms of efficiency, commercialisation and scalability

## Economic case

### Introduction

The purpose of the Economic Case is to identify and appraise a range of possible options for the delivery of the project and to recommend a 'preferred option' that is most likely to offer best Value for Money (VfM). This process comprises two parts:

**Part 1 – developing a long-list and winnowing this to a short-list** using the 'options framework' which examines a range of less ambitious through to more ambitious options (one of which should be the 'counterfactual' / 'status quo' as the benchmark for value for money). This section is structured to provide a detailed description of how the agreed short-list has been developed, which concludes with a summary of the remaining potential options in each category of choice and the subsequent short-list proposed to be taken forward for detailed cost benefit analysis in part 2

**Part 2 – undertaking a cost benefit analysis (CBA)** on the short-listed options to determine the preferred option.

This is illustrated in the Figure below:

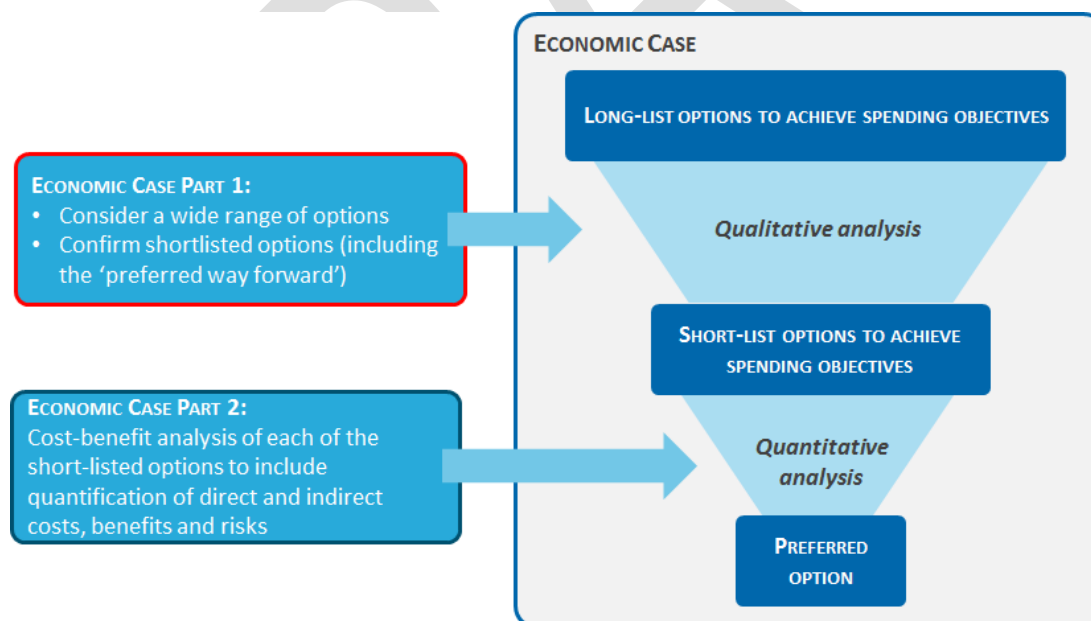


Figure 5 - overview of the Economic Case

## **Economic Case Part 1: The Options Framework**

### **Introduction to the Options Framework**

The 'options framework' demonstrates consideration of a wide range of options (the 'long-list') that could potentially deliver the agreed Investment Objectives over five categories of choice:

- service scope (the 'what' in terms of services and coverage)
- service solution (the practical approach to 'how' services will be delivered)
- service delivery ('who' will deliver the preferred scope and required services)
- service implementation (the 'when' in terms of timing and phasing of delivery)
- funding of the investment (sources of funding)

Options should be considered in this order, because the options arising from consideration of each category of choice inform the categories of choice that follow. At each stage, options should be specified in the context of choices already made.

For example, service delivery options (who delivers services) will depend on the service solutions considered in the previous step. Further, at each stage, the framework outlined is used to encourage development of a wide range of options. These typically cover a range from less to more ambitious, within each category; however, sometimes options within each category are simply discrete and cannot easily be described as 'less' or 'more' ambitious. It is also often appropriate to split the categories of choice into sub-categories, for example, where there are multiple service streams and/or providers.

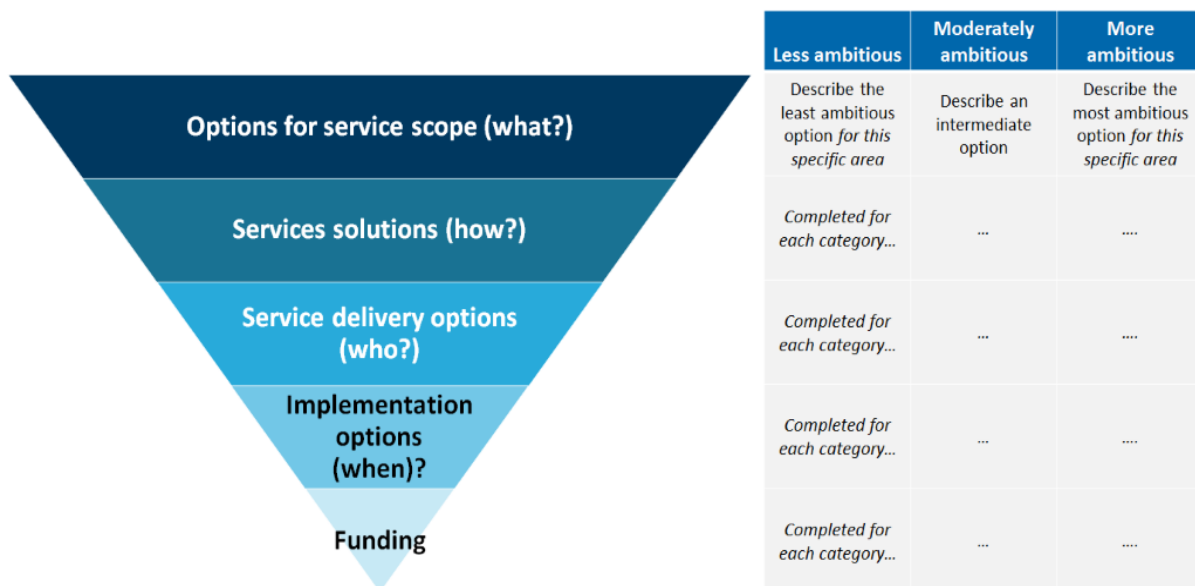


Figure 6 - the options framework categories of choice

The options framework generates a structured list of potential options over a range of dimensions (the 'long-list'), which can then be qualitatively assessed in the first part of the Economic Case against the agreed Investment Objectives and Critical Success Factors. HM Treasury's best practice guidance suggests using the following list of standard Critical Success Factors:

### Part 1.1 Critical Success Factors

No.	Critical Factor	Success	Questions – How well does the option..?/Is the option...?
1	Strategic fit		satisfy the Investment Objectives and business needs? optimise the identified benefits? align with and support the national, regional and local strategies?
2	Value for money		optimise available resources and provide value for money?
3	Potential achievability		acceptable to key stakeholders? politically acceptable? operationally and physically achievable?
4	Supply side capacity and capability		attractive to potential suppliers to deliver the requirements?
5	Potential affordability		affordable within the forecasted capital and revenue of the organisation?



**Table 6 – Critical Success Factors (CSFs)**

This process results in an assessment of each option in terms of how well it could deliver each Investment Objective and the CSFs and is assessed as either:

<b>DISCOUNT</b> Does not meet the Investment Objectives and CSFs	<b>CARRY FORWARD</b> Weakly meets the Investment Objectives and CSFs	<b>CARRY FORWARD</b> Broadly meets the Investment Objectives and CSFs	<b>PREFERRED</b> Strongly meets the Investment Objectives and CSFs
---------------------------------------------------------------------	-------------------------------------------------------------------------	--------------------------------------------------------------------------	-----------------------------------------------------------------------

This enables some options to be ‘discounted’ (not taken forward for further consideration); ‘carried forward’ or ‘preferred’ and a short-list of viable options to be constructed. The short-list always includes the ‘*status quo*’ as the benchmark for value for money against which all proactive options should be measured in part 2 of the Economic Case (cost benefit analysis and impact assessment).

Long-list options were generated using the options framework and reduced to a short-list through a workshop (held 19/01/2018) involving the following key stakeholders:

- Gareth Nutt, Director Environment, Neath Port Talbot County Borough Council
- Simon Brennan, Head of Property & Regeneration, Neath Port Talbot County Borough Council
- Lisa Willis, European & Strategic Funding Manager, Neath Port Talbot County Borough Council
- Christopher Jones, Energy Manager, Neath Port Talbot County Borough Council
- David Bratley, City & County of Swansea
- Darrel Barnes, City & County of Swansea
- Jonathan Morgan, Carmarthenshire County Council
- Steve Keating, Energy Manager, Pembrokeshire County Council
- Kerry MacDermot, Pembrokeshire County Council
- Keith Palmer, SPECIFIC

## Part 1.2 Scope options

Stakeholders agreed to consider the following two elements of scope separately:

- **Service scope** – the coverage of the proposed service(s)
- **Target housing scope** – the categories of housing that can be targeted through HAPS

### **Service scope**

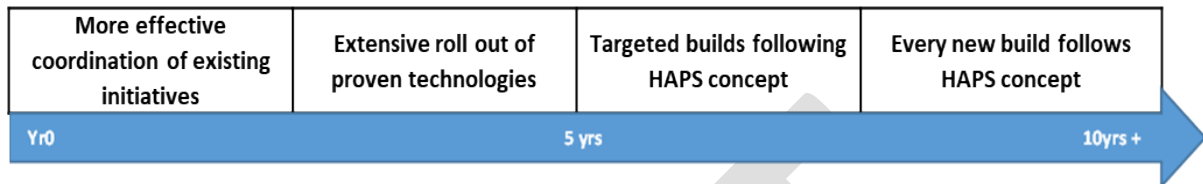
The following service scope (coverage) options were identified from least to most ambitious:

- **The *status quo*** – continuing to deliver existing government and local initiatives
- **Less ambitious:** more effective coordination of existing initiatives – in addition to the *status quo*:
  - providing more education to promote smart meters and the use of smart appliances
  - influencing Local Authorities to consider energy efficient building
  - demonstrating proof of concept through pilot schemes and *ad-hoc* programmes, including partial refits and small-scale demonstrators
- **Intermediate 1:** extensive roll out of proven technologies – in addition to previous options, including a programme of new build and taking opportunities to retrofit with existing programmes
- **Intermediate 2:** targeted builds following HAPS concept – in addition to previous options:
  - implement a definitive coordinated retrofit and new build programme across the region
  - produce supplementary planning guidance to encourage new builds to be carbon positive
- **More ambitious:** ensuring every new build follows HAPS concept – in addition to previous options: prohibiting development of buildings which are not carbon positive by modifying planning regulations

These options were considered by stakeholders and assessed as follows:

Service scope		Options			
Status quo		Less ambitious	Intermediate	More ambitious	
Continue to deliver existing initiatives		More effective coordination of existing initiatives	Extensive roll out of proven technologies	Targeted builds following HAPS concept	Every new build follows HAPS concept
Investment Objectives					
1	To future proof at least 10,300 properties (7,000 retrofit, 3,300 new build) within five years to increase 'affordable warmth' and reduce fuel poverty	Weakly meets	Broadly meets	Broadly meets	Strongly meets
2	To improve health and wellbeing and reduce the burden on health and social services	Weakly meets	Broadly meets	Broadly meets	Strongly meets
3	To deliver a sustainable (commercially viable), cost effective and holistic housing programme	Does not meet	Weakly meets	Broadly meets	Strongly meets
4	To invest in the professional evaluation of the quality and experience of solutions and understanding of the application of new technologies	Weakly meets	Broadly meets	Broadly meets	Strongly meets
5	To promote awareness of how key stakeholders (particularly energy users) optimise their interface with the technology	Strongly meets	Strongly meets	Strongly meets	Strongly meets
6	To support measures to mitigate climate change by reducing CO <sub>2</sub> emissions and energy consumption Predicted annual CO <sub>2</sub> reduction figures: • Retrofit - 9,933 tonnes CO <sub>2</sub> annum • New build - 9,165 tonnes CO <sub>2</sub> annum Figures assume 100% rollout	Weakly meets	Broadly meets	Broadly meets	Strongly meets
7	To create an energy system that is compatible with future smart developments, maximising benefits to the occupant/owner and reducing pressure on the grid by providing local energy generation and security	Does not meet	Weakly meets	Broadly meets	Strongly meets
Critical Success Factors					
1	Strategic fit	Weakly meets	Broadly meets	Broadly meets	Strongly meets
2	Value for money	Weakly meets	Weakly meets	Strongly meets	Broadly meets
3	Potential achievability	Strongly meets	Broadly meets	Broadly meets	Does not meet
4	Supply side capacity and capability	Strongly meets	Strongly meets	Broadly meets	Does not meet
5	Potential affordability	Strongly meets	Strongly meets	Broadly meets	Does not meet
Conclusion >>		DISCOUNT	CARRY FORWARD	PREFERRED	DISCOUNT

Stakeholders agreed that although the options at the extremes (least and most ambitious), did not sufficiently fulfil the Investment Objectives and/or the Critical Success Factors, they represented the realistic, expected progression of activity after the programme over a period of time, as follows:



In the short-term (years 0-2), the least ambitious option should be achievable and with sufficient time (10 years+) the delivery of the most ambitious option, requiring all new build properties to follow HAPS principles, should be achievable. From this perspective, stakeholders felt it was important to keep these options on the table as time related milestones; however, from the narrower perspective of the HAPS programme (to be delivered over five years), intermediate option 2 provided the best balance of strategic fit, value for money, achievability and affordability.

Intermediate option 1 was also considered to provide many benefits, with the advantage of being more achievable and was therefore carried forward.

### **Target housing scope**

The following target housing scope/coverage options were identified and considered from least to most ambitious:

- **Less ambitious:** directly controlled properties only:
  - Only those properties under LA control (*circa* 28k)
  - Delivering 1,000 new build HAPS properties
  - Retrofitting 1,200 properties to improve energy efficiency through a range of interventions (depending on site specific factors)
- **Intermediate:** targeted market penetration – in addition to the *status quo*:
  - Covering LA and RSL properties (*circa* 53k)
  - Social and more extensive coverage of private sector housing based on targeted priorities
  - Delivering 3300 new build HAPS properties
  - Retrofitting 7000 (out of the c13k properties that were non-compliant or ‘acceptable failures’) properties to improve energy

efficiency through a range of interventions, subject to site specific factors

- Stimulating the market for energy efficient housing

■ **More ambitious:** all housing developments in the Swansea Bay City Region – in addition to the previous option:

- Covering all housing developments in the region (both public and private)
- Creating a market for energy efficient housing across the region

These options were considered by stakeholders and assessed as follows:

Target housing scope		Options		
		Less ambitious	Intermediate	More ambitious
<i>Status quo</i>				
n/a		Covers directly controlled properties only	Covers targeted penetration of the market	Covers all housing developments in the Swansea Bay City Region
Investment Objectives				
1	To future proof at least 10,300 properties (7,000 retrofit, 3,300 new build) within five years to increase 'affordable warmth' and reduce fuel poverty	Weakly meets	Broadly meets	Strongly meets
2	To improve health and wellbeing and reduce the burden on health and social services	Broadly meets	Broadly meets	Strongly meets
3	To deliver a sustainable (commercially viable), cost effective and holistic housing programme	Broadly meets	Broadly meets	Strongly meets
4	To invest in the professional evaluation of the quality and experience of solutions and understanding of the application of new technologies	Weakly meets	Broadly meets	Strongly meets
5	To promote awareness of how key stakeholders (particularly energy users) optimise their interface with the technology	Broadly meets	Broadly meets	Strongly meets
6	To support measures to mitigate climate change by reducing CO <sub>2</sub> emissions and energy consumption Predicted annual CO <sub>2</sub> reduction figures: • Retrofit - 9,933 tonnes CO <sub>2</sub> annum • New build - 9,165 tonnes CO <sub>2</sub> annum Figures assume 100% rollout	Broadly meets	Broadly meets	Strongly meets
7	To create an energy system that is compatible with future smart developments, maximising benefits to the occupant/owner and reducing pressure on the grid by providing local energy generation and security	Broadly meets	Broadly meets	Strongly meets
Critical Success Factors				
1	Strategic fit	Weakly meets	Broadly meets	Strongly meets
2	Value for money	Broadly meets	Strongly meets	Strongly meets
3	Potential achievability	Strongly meets	Broadly meets	Does not meet
4	Supply side capacity and capability	Strongly meets	Broadly meets	Does not meet

5	Potential affordability	Strongly meets	Broadly meets	Does not meet
Conclusion >>		CARRY FORWARD	PREFERRED	DISCOUNT

Targeting directly controlled properties (and the private sector where evidence suggests that the concept will be adopted) facilitates establishment of the programme and is a good starting point. However, directly controlled properties and very limited private sector properties currently only account for less than 20% of existing units. Therefore, to achieve the stated Investment Objectives requires a wider coverage of properties to be within scope, which is why extending the scope of private sector property coverage is preferred. The intermediate option is also considered to be achievable and affordable within the period of the initiative. For this reason, it is the preferred option.

The most ambitious option – to cover all housing developments across the region – is a positive aspiration in the longer-term (and would align with the previous more ambitious scope option to ensure every new build in the region is a HAPS), but it is not achievable, affordable or within the capacity and capability of the supply side within the time frame for the programme. For these reasons, it is discounted as an option for further consideration in this business case but is retained for future consideration.

### Service solution

Stakeholders agreed to consider the following three elements of service solution separately:

- **Volume of activity** – options around the numbers of energy efficiency upgrades to be delivered
- **Incentives** – the key mechanism available to stimulate the market and deliver a shift in market demand
- **Governance/oversight of delivery** – potential governance/oversight machinery to successfully deliver the housing programme

### *Volume of activity*

The options relating to the volume of activity to improve housing energy efficiency are as follows:

- **Less ambitious: limited development:**
  - 1000 new units in the Swansea Bay City Region
  - 1200 partial retrofits
- **Intermediate development:**
  - 3300 new units in the Swansea Bay City Region

- 7000 retrofits
- **More ambitious:** all housing and extensive retrofits:
  - new homes
  - Retrofitting of 33,000 existing homes

These options were considered by stakeholders and assessed as follows:

Service solution – volume of activity		Options		
		Less ambitious	Intermediate	More ambitious
<i>Status quo</i>				
n/a		Limited development	Intermediate development	All housing and extensive retrofits
Investment Objectives				
1	To future proof at least 10,300 properties (7,000 retrofit, 3,300 new build) within five years to increase 'affordable warmth' and reduce fuel poverty	Does not meet	Broadly meets	Strongly meets
2	To improve health and wellbeing and reduce the burden on health and social services	Weakly meets	Broadly meets	Strongly meets
3	To deliver a sustainable (commercially viable), cost effective and holistic housing programme	Does not meet	Broadly meets	Does not meet
4	To invest in the professional evaluation of the quality and experience of solutions and understanding of the application of new technologies	Weakly meets	Broadly meets	Strongly meets
5	To promote awareness of how key stakeholders (particularly energy users) optimise their interface with the technology	Weakly meets	Broadly meets	Strongly meets
6	To support measures to mitigate climate change by reducing CO <sub>2</sub> emissions and energy consumption Predicted annual CO <sub>2</sub> reduction figures: <ul style="list-style-type: none"> <li>• Retrofit - 9,933 tonnes CO<sub>2</sub> annum</li> <li>• New build - 9,165 tonnes CO<sub>2</sub> annum</li> </ul> Figures assume 100% rollout	Weakly meets	Broadly meets	Strongly meets
7	To create an energy system that is compatible with future smart developments, maximising benefits to the occupant/owner and reducing pressure on the grid by providing local energy generation and security	Weakly meets	Broadly meets	Strongly meets
Critical Success Factors				
1	Strategic fit	Does not meet	Broadly meets	Strongly meets
2	Value for money	Weakly meets	Strongly meets	Does not meet
3	Potential achievability	Strongly meets	Broadly meets	Does not meet
4	Supply side capacity and capability	Strongly meets	Broadly meets	Does not meet
5	Potential affordability	Strongly meets	Broadly meets	Does not meet
<b>Conclusion &gt;&gt;</b>		<b>DISCOUNT</b>	<b>PREFERRED</b>	<b>DISCOUNT</b>

Stakeholders agreed that retrofitting properties encompassed a range of solutions, depending on the circumstances and local need (i.e. not necessarily a 'whole house' retrofit for every dwelling).



The least ambitious option is the most achievable and affordable; however, it has poor strategic fit as it will not change the *status quo* and deliver a sustainable and commercially viable and cost-effective housing programme by stimulating the market for energy efficient houses. For this reason, stakeholders agreed it should be discounted.

The intermediate option is considerably more ambitious and seeks to deliver 3300 new builds and 7000 retrofits of existing units. While the new units would include an increase in RSL and local authority housing, such an increase in units would require considerable private sector take up. When balanced with broad achievability and affordability, this option was considered to add considerable value by providing a stimulus to the housing market. For these reasons this option was preferred.

The most ambitious option has the strongest strategic fit but is clearly undeliverable within the five year investment period. While it is retained for future consideration, for the purposes of this business case, it is discounted.

### ***Incentives***

The options relating to the incentives to successfully deliver this initiative are as follows:

- **Provide financial incentives** – to stimulate delivery of energy efficiency measures
- **Do not provide any financial incentives** – to stimulate delivery of energy efficiency measures

These options were considered by stakeholders and assessed as follows:



Service solution – incentives		Options	
		Less ambitious	More ambitious
<i>Status quo</i>			
All existing programmes do to some extent, but not co-ordinated – see Annex C		Do not provide financial incentives	Provide financial incentives
Investment Objectives			
1	To future proof at least 10,300 properties (7,000 retrofit, 3,300 new build) within five years to increase ‘affordable warmth’ and reduce fuel poverty	n/a	n/a
2	To improve health and wellbeing and reduce the burden on health and social services	n/a	n/a
3	To deliver a sustainable (commercially viable), cost effective and holistic housing programme	Does not meet	Strongly meets
4	To invest in the professional evaluation of the quality and experience of solutions and understanding of the application of new technologies	n/a	n/a
5	To promote awareness of how key stakeholders (particularly energy users) optimise their interface with the technology	n/a	n/a
6	To support measures to mitigate climate change by reducing CO <sub>2</sub> emissions and energy consumption Predicted annual CO <sub>2</sub> reduction figures: <ul style="list-style-type: none"> <li>Retrofit - 9,933 tonnes CO<sub>2</sub> annum</li> <li>New build - 9,165 tonnes CO<sub>2</sub> annum</li> </ul> Figures assume 100% rollout	n/a	n/a
7	To create an energy system that is compatible with future smart developments, maximising benefits to the occupant/owner and reducing pressure on the grid by providing local energy generation and security	n/a	n/a
Critical Success Factors			
1	Strategic fit	Strongly meets	Strongly meets
2	Value for money	Weakly meets	Strongly meets
3	Potential achievability	Strongly meets	Broadly meets
4	Supply side capacity and capability	n/a	n/a
5	Potential affordability	Strongly meets	Weakly meets
<b>Conclusion &gt;&gt;</b>		<b>DISCOUNT</b>	<b>PREFERRED</b>

Stakeholders felt it was necessary to provide financial incentives to encourage home owners and wider stakeholders (landlords, RSLs, lenders, etc) to invest in energy efficient homes – either new or retrofitted, at least in the early stages of delivery as the demand and market for energy efficient property is stimulated. As the initiative progresses towards the end of the programme, it was felt that any financial incentives could be tapered off as the market becomes more established and energy efficient homes become the ‘norm’. For this reason, while over time this

will move to a position of not providing financial incentives, developing a suitable strategy to provide and taper financial support was considered essential, so this option was preferred.

### ***Governance/oversight of delivery***

The options in terms of governance/oversight of delivery relate to the range of tools that could be used to deliver energy efficient housing, including:

- **LA direct build programmes** – local authorities directly control the build and retrofit programmes for premises under their direct control
- **100% public sector owned housing companies** – local authorities develop new build and retrofit programmes through arms' length public sector owned housing companies
- **Registered Social Landlords** - influenced through the Social Housing Grant
- **Land banks** – publicly owned land is used for new build programmes, contributing to the programme delivery
- **Private housing** – direct influence is limited. However, the intention is through the proof of concept and targeted marketing activity to influence owners to take up energy efficient solutions

These options were considered by stakeholders and it was agreed that they represented a selection of levers to deliver the service solution, depending on individual site circumstances and it was not therefore appropriate to discount any options at this stage.

### **Service delivery**

The service delivery options relate to 'who' can deliver the required services. Options considered were as follows:

- **Less ambitious:** new build and upgrade programmes delivered by UK-wide companies
- **Intermediate:** investment in local companies – to upskill the supply chain and develop production, design, construction and maintenance expertise
- **More ambitious:** local authority led production design, construction and maintenance

These options were considered by stakeholders and assessed as follows:

Service delivery		Options		
Status quo		Less ambitious	Intermediate	More ambitious
n/a		New build and upgrade programmes delivered by UK-wide companies	Investment in local companies	LA led production design, construction and maintenance
Investment Objectives				
1	To future proof at least 10,300 properties (7,000 retrofit, 3,300 new build) within five years to increase 'affordable warmth' and reduce fuel poverty	Strongly meets	Weakly meets	Weakly meets
2	To improve health and wellbeing and reduce the burden on health and social services	n/a	n/a	n/a
3	To deliver a sustainable (commercially viable), cost effective and holistic housing programme	Broadly meets	Strongly meets	Broadly meets
4	To invest in the professional evaluation of the quality and experience of solutions and understanding of the application of new technologies	n/a	n/a	n/a
5	To promote awareness of how key stakeholders (particularly energy users) optimise their interface with the technology	n/a	n/a	n/a
6	To support measures to mitigate climate change by reducing CO <sub>2</sub> emissions and energy consumption Predicted annual CO <sub>2</sub> reduction figures: <ul style="list-style-type: none"> <li>Retrofit - 9,933 tonnes CO<sub>2</sub> annum</li> <li>New build - 9,165 tonnes CO<sub>2</sub> annum</li> </ul> Figures assume 100% rollout	n/a	n/a	n/a
7	To create an energy system that is compatible with future smart developments, maximising benefits to the occupant/owner and reducing pressure on the grid by providing local energy generation and security	n/a	n/a	n/a
Critical Success Factors				
1	Strategic fit	Broadly meets	Strongly meets	Weakly meets
2	Value for money	Broadly meets	Strongly meets	Weakly meets
3	Potential achievability	Strongly meet	Weakly meets	Weakly meets
4	Supply side capacity and capability	Broadly meets	Weakly meets	Weakly meets
5	Potential affordability	Broadly meets	Broadly meets	Weakly meets
Conclusion >>		<b>CARRY FORWARD</b>	<b>CARRY FORWARD</b>	<b>CARRY FORWARD</b>

Stakeholder discussion of these options clarified the key issue and a common theme throughout this options analysis – that the market for energy efficient homes needs to be developed – so it may not be immediately possible (even if desirable) to expect the private sector to drive this. It is much more likely to require public sector leadership in the short-term until the market develops. Realistically, this means the

intermediate and most ambitious options of local authority led development in the early stages, transitioning to a private sector-led market over the period of investment. All options are therefore carried forward at this stage.

## **Implementation**

The Swansea Bay City Region 'Internet Coast' deal has determined that HAPS will be a five year programme. Stakeholders agreed that the delivery profile of the investment was dependent on the 'proof of concept' i.e. monitoring and evaluation of the pilot scheme and developing the HAPS concept in line with the findings, so robust programme management and tracking of benefits is essential.

It was considered that while a five year delivery period for the programme was likely to be ambitious (in terms of developing the supply chain and taking account of lead times), it was important to build and maintain momentum.

## **Funding**

The following options for the implementation of the investment were discussed:

- All public funding
- Mixed funding – including public and private sector funding
- All private sector funding

These options were considered by stakeholders and assessed as follows:

Service delivery		Options		
		Less ambitious	Intermediate	More ambitious
<i>Status quo</i>				
n/a		All public funding	Mixed funding	All private funding
Investment Objectives				
1	To future proof at least 10,300 properties (7,000 retrofit, 3,300 new build) within five years to increase 'affordable warmth' and reduce fuel poverty	n/a	n/a	n/a
2	To improve health and wellbeing and reduce the burden on health and social services	n/a	n/a	n/a
3	To deliver a sustainable (commercially viable), cost effective and holistic housing programme	Weakly meets	Strongly meets	Does not meet
4	To invest in the professional evaluation of the quality and experience of solutions and understanding of the application of new technologies	n/a	n/a	n/a
5	To promote awareness of how key stakeholders (particularly energy users) optimise their interface with the technology	n/a	n/a	n/a
6	To support measures to mitigate climate change by reducing CO <sub>2</sub> emissions and energy consumption Predicted annual CO <sub>2</sub> reduction figures: <ul style="list-style-type: none"> <li>Retrofit - 9,933 tonnes CO<sub>2</sub> annum</li> <li>New build - 9,165 tonnes CO<sub>2</sub> annum</li> </ul> Figures assume 100% rollout	n/a	n/a	n/a
7	To create an energy system that is compatible with future smart developments, maximising benefits to the occupant/owner and reducing pressure on the grid by providing local energy generation and security	n/a	n/a	n/a
Critical Success Factors				
1	Strategic fit	Does not meet	Strongly meets	Does not meet
2	Value for money	Does not meet	Strongly meets	Weakly meets
3	Potential achievability	Does not meet	Broadly meets	Does not meet
4	Supply side capacity and capability	n/a	n/a	Does not meet
5	Potential affordability	Does not meet	Broadly meets	Strongly meets
<b>Conclusion &gt;&gt;</b>		<b>DISCOUNT</b>	<b>PREFERRED</b>	<b>DISCOUNT</b>

The funding mechanism is closely linked to stimulating the market for energy efficient homes – early in the delivery of this initiative, more public funding will be required to stimulate the market; however, as it becomes established and the supply chain develops, less subsidy should be required. Therefore, the less ambitious and most ambitious options are discounted and the intermediate 'mixed economy' approach is preferred, particularly as considerable investment will be required from the private sector to build energy efficient homes for sale.

## Short-listed options summary

The above analysis of each of the elements of choice clearly demonstrates a direction of travel for the Homes as Power Stations (HAPS) programme. Some key issues remain unresolved, although these will be determined in due course as the proof of concept develops and the initial findings of the monitoring and evaluation are presented.

The complete direction of travel is presented in the Options Framework summary below:

		Options			
		Less ambitious	Intermediate	More ambitious	
Scope	Service scope	More effective coordination of existing initiatives	Extensive roll out of proven technologies	Targeted builds following HAPS concept	Every new build follows HAPS concept
	>>>	<b>DISCOUNT</b>	<b>CARRY FORWARD</b>	<b>PREFERRED</b>	<b>DISCOUNT</b>
	Target housing scope	Covers directly controlled properties only	Covers targeted penetration of the market	Covers all housing developments in the Swansea Bay City Region	
	>>>	<b>CARRY FORWARD</b>	<b>PREFERRED</b>	<b>DISCOUNT</b>	
Service Solution	Volume of activity	Limited development	Intermediate development	All housing and extensive retrofits	
	>>>	<b>DISCOUNT</b>	<b>PREFERRED</b>	<b>DISCOUNT</b>	
	Incentives	Do not provide financial incentives		Provide financial incentives	
	>>>	<b>DISCOUNT</b>		<b>PREFERRED</b>	
	Governance/oversight of delivery	Range of mechanisms			
	>>>	<b>CARRY FORWARD</b>			
Service Delivery		New build and upgrade programmes delivered by UK-wide companies	Investment in local companies	LA led production design, construction and maintenance	
	>>>	<b>CARRY FORWARD</b>	<b>CARRY FORWARD</b>	<b>CARRY FORWARD</b>	
Implementation	Delivery over five years				
>>>	<b>PREFERRED</b>				
Funding	All public funding	Mixed funding	All private funding		
>>>	<b>DISCOUNT</b>	<b>PREFERRED</b>	<b>DISCOUNT</b>		

This enables a direction of travel to be described from the remaining options as follows (short-list):

	Option			
	1: the status quo	Alternative: 2	Alternative: 3	4: preferred way forward
Scope		Coordinated roll out of proven technologies (smaller new build programme and opportunistic retrofitting) Covers directly controlled properties only (LA)	Extensive roll out of proven technologies (smaller new build programme and opportunistic retrofitting) Covers targeted penetration of the market (LA direct control + RSL only)	Targeted builds following HAPS concept (coordinated retro fit and new build programme) Covers targeted penetration of the market (direct control, RSL + targeted private sector)
Service Solution		Pathfinder development (1000 new units, 1200 retrofits)  Provide financial incentives to stimulate the market.  Use range of delivery mechanisms depending on individual circumstances	Intermediate development (3300 new units, 7000 retrofits)  Provide financial incentives to stimulate the market.  Use range of delivery mechanisms depending on individual circumstances	Intermediate development (3300 new units, 7000 retrofits)  Provide financial incentives to stimulate the market.  Use range of delivery mechanisms depending on individual circumstances
Service Delivery		Depends on individual circumstances. Mechanisms include: new build and upgrade programmes delivered by UK-wide companies; investment in local companies; LA led production, design, construction and maintenance	Depends on individual circumstances. Mechanisms include: new build and upgrade programmes delivered by UK-wide companies; investment in local companies; LA led production, design, construction and maintenance	Depends on individual circumstances. Mechanisms include: new build and upgrade programmes delivered by UK-wide companies; investment in local companies; LA led production, design, construction and maintenance
Implementation		Delivery over five years	Delivery over five years	Delivery over five years
Funding		Mixed funding	Mixed funding	Mixed funding

*Text in red indicates where the alternative options differ from the preferred way forward.*



This short-list represents the conclusions of the qualitative options analysis and has been constructed by combining preferred way forward (green) options from each category of choice and carry forward options (yellow).

## **Economic Case part 2 – cost benefit analysis**

### ***Key principles***

The key assumptions relating to the costs of each of the short-listed options are as follows:

- A programme life of 5 years is assumed (aligned with the agreed programme period, although it is entirely possible to extend past this period and continue to deliver value). Direct costs associated with the programme are recorded for the 5 year period with NPV calculations shown at 5, 15 and 30 years
- **Annual GVA benefits** – the main benefits are energy savings for householders, energy surplus (contribution to the grid) and new jobs:
  - **Energy saving** data is based on research undertaken by the Welsh School of Architecture, Cardiff University<sup>82</sup> for both new build and retrofit houses. The annual saving is multiplied with the expected number of each type of property for each option to provide quantified benefit
  - **Energy surplus** – while it is theoretically possible for energy positive housing to provide electricity back into the grid, for prudence, this has not been assumed to be a significant benefit
  - **New jobs** – the principal benefit for this proposal, the benefits of increased performance have been calculated by multiplying the expected number of new construction jobs per year (c19 per £1million invested) by the additional expected GVA added per job, to give total GVA expected per year. The assumption is that created jobs will have a degree of permanency and therefore each year, new jobs are added the duration of the programme, which has a cumulative effect on the GVA for 5 years. This is a conservative estimate and jobs are likely to be created for a longer period than the 5 year programme. This approach is used to model cumulative benefits throughout the programme period, after which time the number of created jobs is considered to be static and the benefit fixed for the remainder of the appraisal period

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<sup>82</sup> Preparation for an Energy Positive Community in the UK Modelling-led innovative housing practice in Wales  
Phil Jones, Xiaojun Li, Jo Patterson, Ester Coma, Simon Lannon



- The **costs of the programme** – include staffing costs, new housing costs (the difference between a new build HAPS house and a comparable standard build, which is c£25k), retrofit housing costs and associated project costs (supply chain development and monitoring and evaluation)
- **Risk** – of higher costs or lower benefits delivery is incorporated into the expected ranges used in the calculations and is therefore part of the analysis

### ***Assumptions, benefits and costs that apply to all options***

- The programme will be entirely funded by the Swansea Bay City Deal. £15million has been allocated to the HAPS programme, however the HAPS programme will lever in public and private sector funding to add value to the City Deal funds – see Financial Case.
- The benefit claimed for new job GVA is the difference between the average Welsh job GVA and a ‘construction of buildings’ GVA value (£23,572) to take account of displacement, in accordance with Green Book principles

Costs and benefits have been estimated by using ranges representing the ‘least’ expected cost/benefit; the ‘expected’ cost/benefit and the ‘maximum’ cost/benefit. Rather than using a single point estimate, the use of ranges and probabilistic Monte Carlo analysis provides output ranges. This allows a richer view of the potential value of each option and the expected costs of the preferred option and options’ sensitivity to change<sup>83</sup>.

### ***Option 1 – the status quo – costs and benefits***

While the status quo undoubtedly delivers benefits, to simplify the analysis, no benefits or costs are recorded for the status quo as it represents the baseline or ‘counterfactual’ – all benefits and costs for ‘do something’ options are considered to be additional to this baseline.

### ***Options 2, 3 & 4 – costs and benefits***

- **Costs** – have been estimated based on NPTCBC estimates for the programme team and research from the Welsh School of Architecture for HAPS and retrofits
- **Benefits** – all benefits are linked to the expected number of new build HAPS and retrofitted houses. The less ambitious options assume fewer units and therefore deliver less benefit. The most ambitious

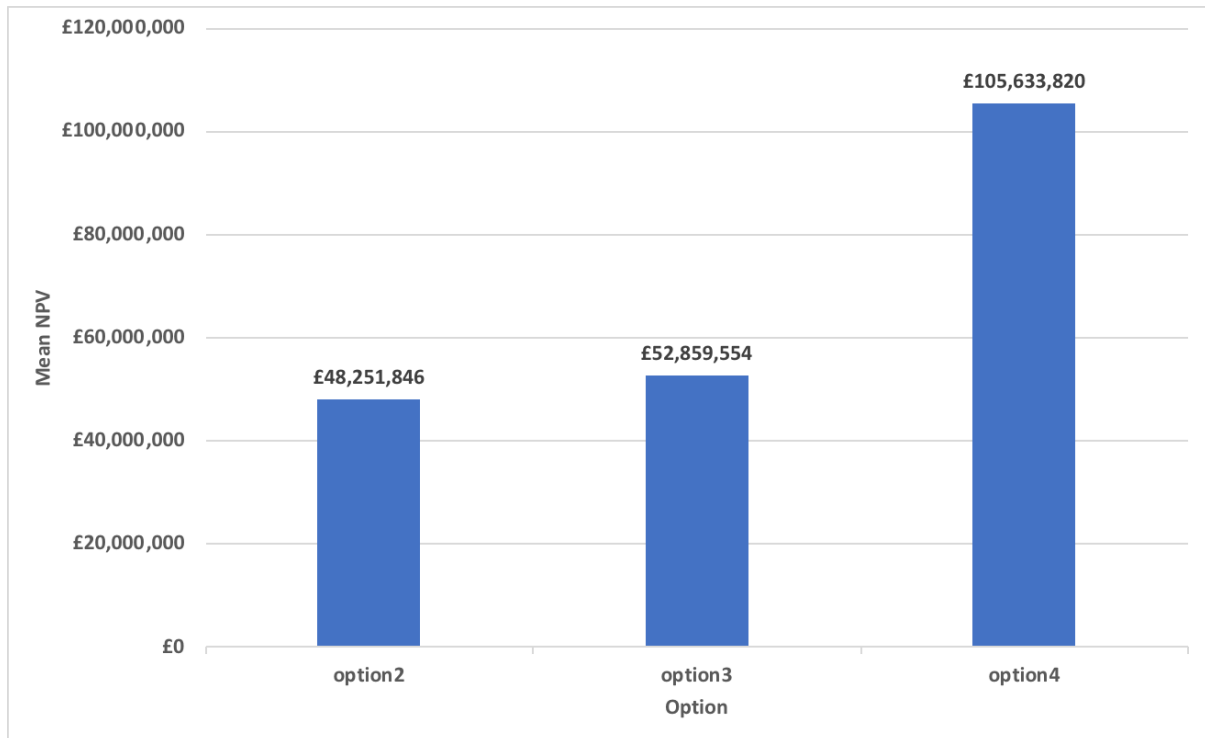
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<sup>83</sup> See Microsoft Excel cost model for further details

option assumes more units (and consequently more investment), which delivers more benefit, but takes longer to do so

## Results

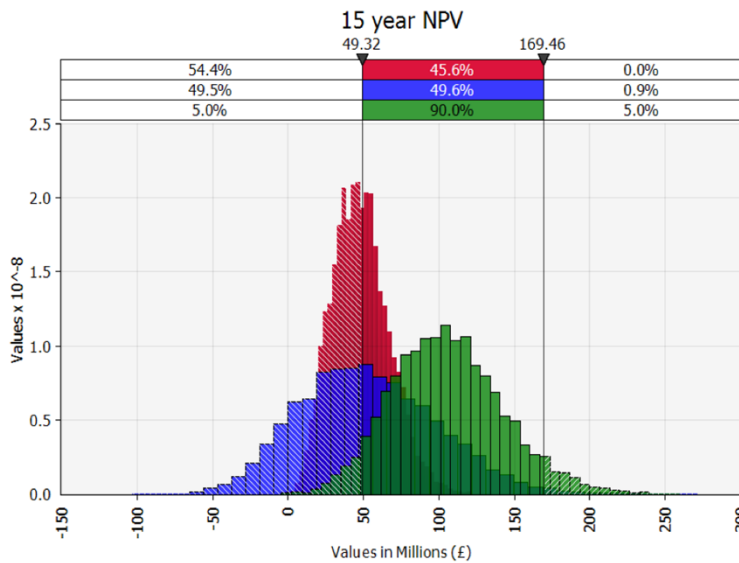
The costs and benefits of each option have been assessed to calculate the mean 15 year NPV as shown below:



This shows:

- All 'do something' options will deliver greater value than the status quo
- The option with the highest NPV is option 4

The calculated NPV distributions for options 2-4 are shown below:



	15 year NPV	15 year NPV	15 year NPV
Cell	Option 2!\$84	Option 3!\$84	Option 4!\$82
Minimum	-£1,452,893.76	-£102,893,969..	-£4,374,701.26
Maximum	£121,629,211...	£271,442,004...	£259,224,504...
Mean	£48,251,846.30	£52,859,553.57	£105,633,819...
90% CI	± £306,833.93	± £746,049.48	± £600,822.49
Mode	£44,156,647.13	£48,184,405.92	£104,224,762...
Median	£47,195,466.48	£49,906,626.36	£103,806,562...
Std Dev	£18,652,450.47	£45,352,386.13	£36,524,030.03
Skewness	0.3591	0.3373	0.3402
Kurtosis	2.9464	3.0610	3.1462
Values	10000	10000	10000
Errors	0	0	0
Filtered	0	0	0
Left X	£49,318,601.81	£49,318,601.81	£49,318,601.81
Left P	54.4%	49.5%	5.0%
Right X	£169,455,932...	£169,455,932...	£169,455,932...
Right P	100.0%	99.1%	95.0%
Dif. X	£120,137,330...	£120,137,330...	£120,137,330...
Dif. P	45.6%	49.6%	90.0%

These show that:

- option 2 (red distribution) has quite a narrow NPV range
- option 3 (blue) has a much wider distribution range and a probability of delivering both a higher and lower mean NPV than option 1
- option 4 (green) has a similarly wide distribution range to option 2 but with, overall, a significantly greater chance of delivering a higher NPV than both alternatives

### ***Economic Case conclusion***

Based on this analysis, option 4 is the preferred option.

The programme has concluded that option 4 should be progressed. The remainder of this business case (Commercial, Financial and Management cases) focus on option 4 as the preferred solution.

## **Commercial Case**

This section of the Full Business Case outlines the proposed deal in relation to the preferred way forward described in the Economic Case. This includes procurement activity and agreements with other parts of the organisation/other organisations.

### **Procurement strategy**

As lead local authority for the HAPS programme, Neath Port Talbot County Borough Council will ensure compliance with public procurement policy i.e. directives, regulations, policies and guidance relating to the procurement of supplies, services and works for the public sector.

Each local authority has its own contracts procedure rules for the procurement of goods, services and works, addressing the requirements of best value. The rules are aligned to the Public Contracts Regulations 2015. The rules ensure a system of openness, transparency and non-discrimination where the accountability and probity of the procurement process will be beyond reproach.

### **Required services**

The preferred way forward described in the Economic Case proposes a programme of activity across the Swansea Bay City Region focused on the following elements:

- New build project
- Retrofit project
- Supply chain development fund
- Monitoring and evaluation

### **New build and retrofit projects**

Under the direction of a Programme Manager (to be appointed by the lead local authority) two project managers will be appointed to the HAPS programme, one for the new build project and the other for retrofits. Their main role will be to ensure the adoption of the HAPS approach in the public and private housing sectors.

A limited financial incentives fund will be established to fund the gap between standard build and energy positive to 'kick start' the adoption of the HAPS approach. The programme team will align and add value to existing programmes such as the Welsh Government Innovative Housing Programme (IHP).

## **Supply chain development fund**

Funding has been identified within the HAPS programme to support the development of a sustainable and skilled regional supply chain to deliver the HAPS approach during the life of the programme and beyond.

The first stage will be to map out renewable technology supply chain companies – this will be carried out in conjunction with the advisory group with industry partners.

The 'Supply Chain Development Fund' will be established and scheme guidance will be developed in line with State aid guidelines.

The aim of the fund is to assist suppliers to grow, develop and diversify into renewable technologies. It will be managed by the HAPS programme team, overseen by the SRO and will report to the HAPS Steering Group.

The HAPS project will work with the Skills and Talent project to identify the skill requirements for decarbonisation and the workforce is appropriately skilled or upskilled to take advantage of this growing industry.

The HAPS Supply Chain Investment Fund will be advertised across the region, and a series of engagement events will be held with potential suppliers from across the industry. These activities will be linked to other support programmes such as Business Wales.

There will be an application process based on the existing Neath Port Talbot County Borough Council discretionary SME funding scheme. The process will be:

1. Initial enquiry
2. Application form to be completed and assessed
3. Application to be assessed by the HAPS Programme Board
4. Client notified of outcome
5. Monitoring of funding

The funding will be awarded in line with State aid rules.

The intention is to ensure that the legacy of the HAPS programme is a co-ordinated, robust and sustainable supply chain, capable of delivering and maintaining HAPS technologies across the region and beyond.

Cardiff University's Welsh School of Architecture is carrying out a supply chain development exercise with the City and County of Swansea. The HAPS programme will review this and identify good practice/lessons learned with a view to developing the regional HAPS supply chain.

The HAPS programme team will continue to liaise with key partners in relation to skills including but not solely, the City Deal Skills and Talent Programme, FE, HE and the Renewable Energy Skills Forum (Wales) to ensure the workforce is suitably skilled to take advantage of the opportunity of the HAPS programme.

### **Market distortion**

In terms of market distortion, the energy market is currently distorted through subsidies - fossil fuel is heavily subsidised at the moment and climate change is not adequately costed in relation to the cost of carbon. In addition, renewables and energy efficiency measures receive subsidies, although this is decreasing.

The HAPS programme is a pioneering programme to prove the 'homes as power stations' concept at scale in both new build and retrofit developments – moving away from one off demonstrators. It will provide evidence of the benefits of incorporating renewable technologies and design into new build developments and retrofit programmes to deliver smart, low carbon, energy efficient homes – leading to a reduction in fuel poverty and its impact on health and well-being, and contributing to carbon emission reduction targets in line with UK and Welsh Government policies.

The HAPS programme aims to prove the concept that incorporating renewable technologies and design in housebuilding and retrofit programmes will produce energy positive homes / 'homes as power stations' i.e. homes which produce more energy than they use over a 12 month period.

Private sector house builders do not currently have to build energy positive homes and the current cost model does not make it a commercially attractive option, therefore the current demand is not there and the supply is not mature. However this is changing due to Welsh Government Building Regulations Part L requiring an uplift in energy efficiency standards for new build domestic buildings.

The aim of the HAPS programme is to demonstrate initially through the public sector that by developing energy positive homes at scale, and carrying out retrofit programmes at scale will reduce the cost differential between a standard build and energy positive build or retrofit. The HAPS programme will facilitate the take up of renewable technologies in the public sector and demonstrate the benefits to encourage the private sector to adopt the concept. There is market failure within the private sector due to the current cost differential and lack of evidence of the benefits of developing homes as power stations i.e. energy positive homes. HAPS will prove that developments at scale will reduce the cost differential and encourage the private sector to integrate design and technologies in new build developments, and retrofit programmes.

The HAPS programme will be monitored and evaluated to provide evidence that the benefits will outweigh the additional cost. The monitoring and evaluation will cover three areas:

- Energy efficiency (including reduction in carbon emissions)
- Health and well-being (including tackling fuel poverty)
- Social science

The multiple benefits of energy positive housing and energy efficiency are not costed in the provision of affordable warmth and reducing fuel poverty. This has major health and well-being benefits, which have a positive impact on health services. Large scale adoption of homes as power stations type new build and retrofits will create major job opportunities and supply chain activity, which will deliver socio-economic benefits to the region including developing a sustainable indigenous supply chain.

The HAPS programme will include an education / dissemination programme to identify good practice, lessons learned in terms of design and technologies permutations in relation to site location, tenure etc.

The HAPS programme will therefore not distort the market:

- The programme is key to delivering government policy in particular Prosperity for All: A Low Carbon Wales and Industrial Strategy Transforming Construction challenge area.
- The market is currently not delivering energy positive homes at scale.
- It will lead to a more mature and balanced supply and demand relationship.
- It will improve awareness of what technology can deliver.
- It will also identify and quantify multiple benefits.

- It will test financial models for new build and (more importantly) for retrofit.
- The technologies already exist - the innovation is in how the technologies are integrated and moving away from one off demonstrators to developments at scale.
- It will stimulate the growth in the innovation and technology market in line with government policy.
- The demand is currently not there at scale, and the supply is not mature enough

The HAPS programme will deliver any incentives in line with State aid regulations e.g. supply chain development

### **Monitoring and Evaluation**

The HAPS programme will procure the services of an organisation to monitor and evaluate its activities. As the programme budget for monitoring and evaluation is £250,000 and NPTCBC's and the OJEU threshold for local authorities is £181,302, the contract will be procured via OJEU or a suitable framework. The programme manager will scope the tender specification based on the HAPS Investment Objectives.

Monitoring and evaluation will be in three phases across the five years of the programme, including the social aspect and health and wellbeing benefits of HAPS:

- **Phase 1** – at the beginning of the programme baseline data will be collated
- **Phase 2** – at the end of Tranche 1 (see outline programme plan) an interim evaluation will be carried out. By this time, it is expected that the first 200 new build and 250 retrofit HAPS homes will have been completed
- **Phase 3** – toward the end of the programme a full and final evaluation will be undertaken to inform decisions about future rollout of HAPS technologies

It is highly likely that the procurement exercise will be split into two separate tenders 1) CO<sub>2</sub> emissions 2) Health and wellbeing aspect of HAPS. Requirements for the specification are already being discussed with Public Health Wales and a working group has been established to develop these.



The programme team will record examples of good practice, risks, costs and benefits on an ongoing basis which will serve the dual purposes of ensuring that the HAPS programme remains on track and delivering the anticipated benefits, as well as informing the more substantial interim and final evaluations. Recent research has found that investments in energy efficiency improvements in housing provide a wide range of benefits to the lives and wellbeing of residents and that, *“it is not unlikely that this may produce value in terms of benefits to the NHS and social services in the longer term.”*<sup>84</sup> It is intended that the evaluation will seek to define these additional health benefits more clearly.

Good practice examples of monitoring and evaluation specifications and exercises are currently being collated. In addition, the Welsh School of Architecture (Cardiff University) are currently undertaking a research project with Carmarthenshire County Council and findings from this will inform the monitoring and evaluation procurement for the HAPS programme.

The HAPS path finder/pilot scheme is due on site in summer 2018. This is a collaborative project between Pobl (Registered Social Landlord), SPECIFIC (Swansea University) and Neath Port Talbot CBC. The monitoring and evaluation of this project is funded by UK Government (BEIS), with Welsh Government carrying out its own monitoring exercise as the development is part funded by the Welsh Government Innovation Housing Programme 2017/18.

### **Personnel implications (including TUPE)**

It is anticipated that TUPE (Transfer of Undertakings (Protection of Employment) Regulations 1981)) – will not apply to this investment because the programme will not have any impact on the employment of existing staff. The proposed operating model for the programme is outlined in the Management Case and does not include the transfer of any staff.

### **FRS 5 Accountancy treatment**

Neath Port Talbot CBC will not create any assets through the HAPS programme. The City Deal funding will not be used to create assets, the City Deal funding will be used to fund the programme management arrangements, provide financial incentives, develop the supply chain, marketing and fund the monitoring and evaluation.

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<sup>84</sup> Public Health Research 2018, Vol 6, No 5, page 77

For completeness, if any partners create assets, these will be logged on a HAPS programme asset register and submitted with monitoring reports.

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# Financial Case

## Introduction

The Financial Case provides assurance that the short-listed options, with particular focus on the preferred way forward, are affordable, taking into account all potential funding sources. It should be noted that the costs are evidence based projections based on previous programmes and projects and will be refined during the implementation of the HAPS programme. The City Deal funding envelope of £15 million is to establish the required infrastructure and develop the delivery model with a view to delivering the HAPS programme over five years.

All of the costs will be finalised as part of programme definition arrangements. The nature of the HAPS programme is to scale up activity and therefore increase the affordability of the HAPS concept by refining the cost envelope. This will be reflected in regular financial forecast updates during the life of the programme.

## Financial Case – summary / overview

The HAPS programme is requesting £15m (capital funding) from the City Deal to support delivery of the following activities:

1. Establish a programme team (£1m)
  - a. To manage the regional programme of activity
  - b. Manage the regional supply chain development fund
  - c. Manage the regional financial incentives fund
  
2. Establish a regional targeted financial incentives fund (£10.5m)

This is approx. £1k per property gap funding depending on the scheme – and will be determined to optimise investment. The financial incentives will not act as a subsidy for every development. It will be an incentive scheme at the start of the programme to incentivise the adoption of the HAPS approach (similar to IHP). The fund will be State aid compliant.

3. Establish a supply chain development fund (£3m)
  - a. To support local companies to develop and diversify.
  
4. Marketing / education / dissemination activity (£250k)
  - a. Promoting the benefits of the HAPS approach

- b. To develop and communicate a tested, quality assured flexible design approach
  - c. Private sector engagement
5. Carry out an ongoing monitoring and evaluation programme (£250k)
- a. Energy efficiency
  - b. Health and wellbeing (in partnership with Public Health Wales)
  - c. Social science (in partnership with academia)

### Overall affordability

The HAPS programme has been prioritised as one of the eleven projects identified as necessary to deliver the Swansea Bay City Deal investment programme. The region has allocated £15 million from its £241 million City Deal fund to the HAPS programme, subject to the submission and approval of a business case.

The £15 million will finance the following main activities: to establish a programme team which will manage the new build and retrofit projects (including financial incentives); manage the supply chain development fund (including a business grant process); associated marketing activity; and procure an organisation to undertake monitoring and evaluation at key stages of the programme.

The inflation<sup>85</sup> adjusted revenue requirement for this programme will be funded through the City Deal as follows (note – only five years' appraisals are shown, consistent with the proposed programme duration) and the HAPS Programme Board will be responsible for ensuring that the programme delivers within its agreed boundaries.<sup>86</sup>

Yr	Programme team	Financial incentives	Supply chain development	Marketing	Monitoring & evaluation	Total	Inflation Factor	Total
0	£200,000	£1,450,000	£250,000	£50,000	£50,000	£2,000,000	1	£2,000,000
1	£200,000	£2,950,000	£750,000	£50,000	£50,000	£4,000,000	1.028	£4,112,000
2	£200,000	£3,700,000	£1,000,000	£50,000	£50,000	£5,000,000	1.0609	£5,304,500
3	£200,000	£2,450,000	£1,000,000	£50,000	£50,000	£3,750,000	1.1087	£4,157,625
4	£200,000	-	-	£50,000	£50,000	£250,000	1.1475	£286,875
	<b>£1,000,000</b>	<b>£10,500,000</b>	<b>£3,000,000</b>	<b>£250,000</b>	<b>£250,000</b>	<b>£15,000,000</b>		<b>£15,861,000</b>

<sup>85</sup> The HAPS Programme Board will manage the programme within the £15 million City Deal funding allocation.

<sup>86</sup> Managing Successful Programmes best practice states that the Programme Board is responsible for ensuring that the programme delivers within its agreed boundaries (e.g. cost, impact, rate/scale of adoption, expected/actual benefits etc).

## **Other sources of funding**

The HAPS Programme Board have a budget of £15 million which will be to recruit a programme manager and project managers, oversee the development of a supply chain investment fund and procure the services of a professional organisation to undertake the monitoring and evaluation of the programme. A substantial part of the funding will be used to 'pump prime' the adoption of the HAPS concept through funding elements of technology products in new build and retrofit properties.

The HAPS programme will be working closely with a range of other publicly funded programmes and projects which are already delivering energy efficient properties. HAPS funding will be used to add value to these initiatives and ensure that HAPS technologies are deployed to maximise the benefits of other energy efficient programmes to ensure the best use of public funds.

The investment in programme/project management will be used to ensure that there is a greater level of co-ordination and engagement across the region, enabling public funds to be used to the greatest effect. Local authorities are aiming to encourage the adoption of the HAPS concept for all new build developments and retrofit programmes through the targeted use of the HAPS financial incentives to plug the current gap between a 'standard build' and a 'HAPS build'.

The ultimate aim of the HAPS programme is to fully engage the private housing sector in adopting the HAPS concept in all future housing developments and retrofit programmes. Previous programmes have found that it can be difficult to engage the private sector due to commercial and operational barriers. As well as substantial marketing activity to engage the private sector, the benefits from HAPS technologies will be evidenced in the prototype and first tranche developments, together with reductions in costs through economies of scale working towards a cost neutral scenario, meaning that utilising HAPS technologies will be much more attractive to the private sector.

Engagement with the private sector has already started, and will increase over the 5 years of the programme. The HAPS concept will be 'proved' during the first few years and the cost envelope of the technology will be reduced, the concept 'de risked' and the substantial benefits such as improvements in health and wellbeing and reductions in fuel poverty will

be demonstrated making it an attractive offer for the private sector to adopt. The private sector will be encouraged to adopt the HAPS concept and take advantage of the HAPS financial incentives, to bridge the current technology cost gap between a standard build and a HAPS build, will be an additional driver of change.

With financial incentives and land availability (not subsidised land) it would not be unreasonable to expect to see induced funding at the levels indicated in the following table:

	2018/19	2019/20	2020/21	2021/22	2022/23	Total
<b>City Deal</b>	£2,000,000	£4,000,000	£5,000,000	£3,750,000	£250,000	£15,000,000
<b>Private</b>	£23,075,000	£47,675,000	£73,050,000	£102,600,000	£129,500,000	£375,900,000
<b>Other programmes</b>	£6,425,000	£14,075,000	£22,200,000	£31,400,000	£40,500,000	£114,600,000
<b>Total</b>	<b>£31,500,000</b>	<b>£65,750,000</b>	<b>£100,250,000</b>	<b>£137,750,000</b>	<b>£170,250,000</b>	<b>£505,500,000</b>

It **needs to be noted that** the HAPS programme will not develop a stand-alone private sector house building programme, it will encourage the private sector to adopt the HAPS concept for planned developments. RSLs have private trading arms, and use private financial borrowing to fund developments, this is another way in which private sector funding will add value to the HAPS programme.

See below table of identified public and private funding sources:

<b>Funding source</b>	<b>Status</b>
<b>Public Funding</b>	
WG Innovation Housing Programme (IHP)	Individual schemes to apply for IHP. IHP is a competitive annual programme to fund innovation in house building.
Social Housing Grant (SHG)	SHG will fund up to 58% of RSL housing build costs.  The 4 local authorities agree a SHG programme for current and future years and will encourage RSLs to adopt the HAPS concept in their SHG new build programmes.
Housing Revenue Account (HRA)	C&C Swansea, Carmarthenshire CC and Pembrokeshire CC are local housing authorities with access to HRA, and the HAPS concept will be adopted for new build programmes where practicable.
Affordable Homes Guarantees Programme (AHG)	This is a financial mechanism available to deliver the HAPS programme.
Arbed	HAPS programme team to discuss maximising Arbed to deliver aims and objectives of HAPS project. The City Deal and HAPS programme will add value to the Arbed programme.
Energy Company Obligation (ECO)	HAPS programme to discuss maximising ECO to deliver aims and objectives of HAPS project.
Local Authority land banks	Local authorities will make land available on a case by case basis to encourage housing developments to adopt the HAPS concept.
<b>Private Sector funding</b>	
Private sector finance	RSL borrowing will contribute to the private sector leverage in the HAPS programme.
Private sector developer build costs	Linked to individual scheme funding packages.
Grant incentives	Private sector funding leverage into the HAPS programme
Private sector contribution to retrofits (home owners / private rented sector)	Private sector funding leverage into the HAPS programme.
Supply chain development	Sustainable supply chain development to increase private sector leverage into the HAPS programme

## **Sustainability/exit strategy**

The Homes as Power Stations exit strategy will be refined during the early stages of the programme. There will be no financial incentives or business grants in the final year as it is anticipated that by year five the programme will have developed and established a structured, well-coordinated, scaled up approach to ensure the long-term sustainability of the HAPS concept incorporating the following elements:

- Quality assured/building regulation compliant design and construction processes
- Proven and established affordable cost model
- Sustainable and skilled supply chain

## **Assessing affordability**

The City Deal has determined that sufficient funds are affordable for the programme and these are available subject to approval by the Swansea Bay City Deal Joint Committee.

## **Stakeholder/commissioner support**

The HAPS programme has been prioritised as one of the eleven projects within the Swansea Bay City Deal investment programme. The Welsh Government and UK Government will review the business case and advise the City Deal regional office when money can be released.



## **Management case**

### **Introduction**

The Management Case addresses the achievability of the proposal and planning arrangements required to both ensure successful delivery and to manage programme risks.

### **Programme and Project Management (PPM) arrangements**

Programme management is a vital component in the delivery of change; whether change to public or customer services, or change within organisations. In the government context, Programme management is what the best policy makers have always done, though they may not have called it that; thinking through the end-to-end process to translate policy into delivery plans and into desired outcomes.<sup>87</sup> See Annex A for the benefits of programme and project management.

### **Programme plan**

A phased introduction of the programme is envisaged over the first year with a programme team to be appointed following approval.

Over the course of the programme, the strategic intention is to scale up, from proof of concept in the public sector to a targeted roll out of the HAPS concept to the private sector. Through this scaling up of activity it is anticipated that the costs associated with HAPS innovation will move to a more affordable cost envelope and the concept will be de-risked. Therefore, the HAPS programme is an evolving 'live' activity and the programme plan will be updated on a regular basis, with individual projects moving from proof of concept, to design, to funding secured.

### **Critical timeline**

The critical timeline is as follows:

- Gareth Nutt appointed as Senior Responsible Officer (complete)
- SBCD Joint Committee agreement of NPTCBC as lead authority (complete)
- Financial/legal considerations
- Complete Full Business Case
- Business case review process (see Annex F)

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<sup>87</sup> <https://www.gov.uk/government/publications/best-management-practice-portfolio/about-the-office-of-government-commerce>

- SBCD Joint Committee approval of Full Business Case
- Recruitment of programme team
- Programme definition commences

## **Programme Management and Programme Initiation**

Defining a programme in accordance with MSP involves the following activities, which now need to be undertaken:

1. Establish the infrastructure for defining a programme
2. Establish the team to define the programme
3. Identify and analyse the stakeholders (see Annex D for outline)
4. Refine the vision statement
5. Develop blueprint
6. Develop benefit profiles
7. Model the benefits and refine the profiles
8. Validate the benefits
9. Design the project dossier
10. Identify tranches
11. Design the programme organisation
12. Develop the governance arrangements
13. Develop the programme plan
14. Develop and confirm the business case
15. Consolidate programme definition
16. Prepare for the first tranche
17. Approval to proceed

Each stage will be briefly described:

### **1. Establish the infrastructure for defining a programme**

Following review by the SRO, Neath Port Talbot CBC will submit this Full Business Case for approval to the Joint Committee and following the release of funds will establish a programme office for the HAPS Programme.

### **2. Establish the team to define the programme**

The SRO for the HAPS Programme will be Gareth Nutt, Director of Environment. A Programme Manager will be recruited, followed by the recruitment of two Project Managers (new build and retrofits). An Administrative Officer will also be recruited to support the programme. The programme team will have access to specialist advisers and subject matter experts.

### **3. Identify and analyse the stakeholders**

An outline stakeholder plan has already been prepared, see Annex D.

#### **4. Refine the vision statement**

The City Deal have provided a vision for the HAPS Programme:

***‘By 2030, South West Wales will be a confident, ambitious and connected City Region, recognised internationally for its emerging knowledge and innovation economy’***

#### **5. Develop blueprint**

The City Deal have also set out a blueprint ‘Building on the capabilities of existing organisations and research facilities within the region that are developing new technologies to allow buildings to generate, store and release energy, this initiative seeks to undertake an extensive new house build and retrofit programme which integrates such technologies. Whilst this programme will help to generate sustainable and affordable homes and address fuel poverty, it will also develop and seek to attract new sector supply chains incorporating leading research and high value manufacturing and construction operations. The UK and Welsh Governments expect the Swansea Bay City Region’s proposals to be ambitious and additional to the existing innovation landscape.’

#### **6. Develop benefit profiles**

High level benefits are described in the Strategic Case and the programme team will develop benefit profiles during the programme definition stage.

#### **7. Model the benefits and refine the profiles**

The programme team will model the benefits from stage 6 and refine the profiles to ensure that the optimal level of benefit is delivered as the programme progresses.

#### **8. Validate the benefits**

As the programme progresses and the benefits start to be delivered, the process will be validated, measures tested, and the HAPS Programme Board advised if the programme is delivering the expected level of benefit, so that remedial action can be taken if necessary.

#### **9. Design the project dossier**

At this stage it is envisaged that there will be four projects in the dossier:

- New build project
- Retrofit project
- Supply chain development fund
- Monitoring and evaluation project

These projects will be supported by a branding, marketing and communications strategy.

## **10. Identify tranches**

At this stage it is envisaged that there will be three tranches within the five year programme:

Tranche 1 – establish the programme infrastructure, procure the independent organisation that will undertake the monitoring and evaluation, baseline the programme, integrate existing/related project activity, ensure the development of 200 new builds and 250 retrofits in line with the HAPS specifications (see Annex E).

It is important to note that the allocation of public housing in line with 'nomination rights' is the responsibility of the local authorities and housing associations and these organisations will be consulted by the project managers.

Tranche 2 – undertake an interim evaluation and ensure that any recommendations are integrated into the programme, continue with new builds and retrofits (supported by financial incentives), initiate the supply chain development fund (including the business grant scheme) supported by business teams from the participating local authorities.

Tranche 3 – continue with new builds and retrofits through to the end of the programme, ensure that the supply chain is robust and sustainable for the future, showcase the programme to Welsh and UK interests, commence the final monitoring and evaluation and implement the exit strategy.

Throughout the programme it is envisaged that there will be a co-ordinated approach to branding, communications and marketing to ensure:

- Stakeholder engagement, especially to encourage engagement from the private sector
- Industry awareness
- Public interest is raised to counter poor up take as described in Strategic Case
- The programme is promoted regionally, nationally and internationally

## **11. Design the programme organisation**

The programme will be organised as shown in the following Figure and integrated with the Swansea Bay City Deal governance arrangements:

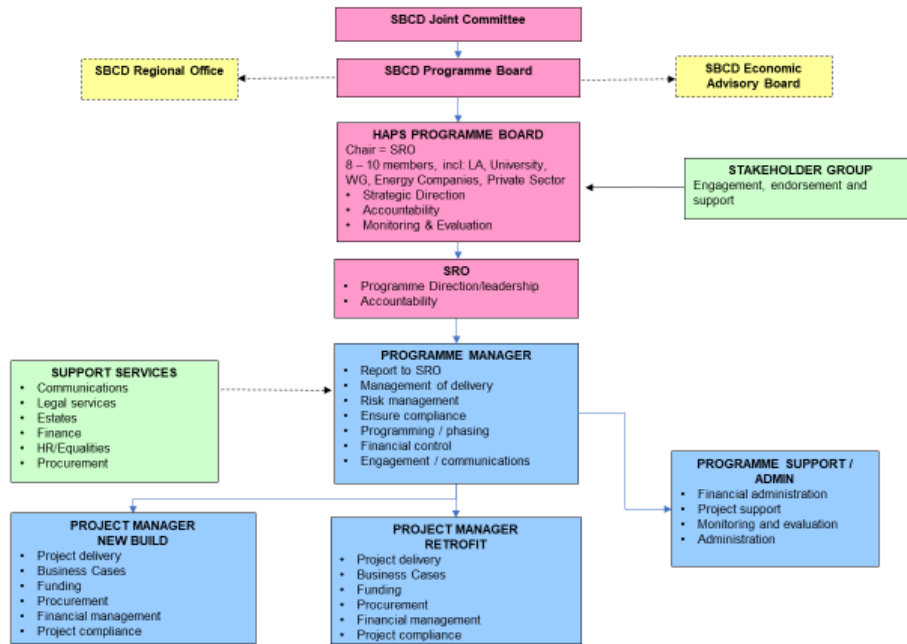


Figure 7 – HAPS Programme organisation

## 12. Develop the governance arrangements

See also Figure 7 above. Corporate governance for this scheme will be provided by a HAPS Programme Board which will meet monthly. The programme board will manage the investment fund and provide overall programme management, co-ordination and links to other Swansea Bay City Deal programmes, particularly the Skills and Talent programme.

### 13. Develop the programme plan

The outline programme plan is shown in the following Figure:

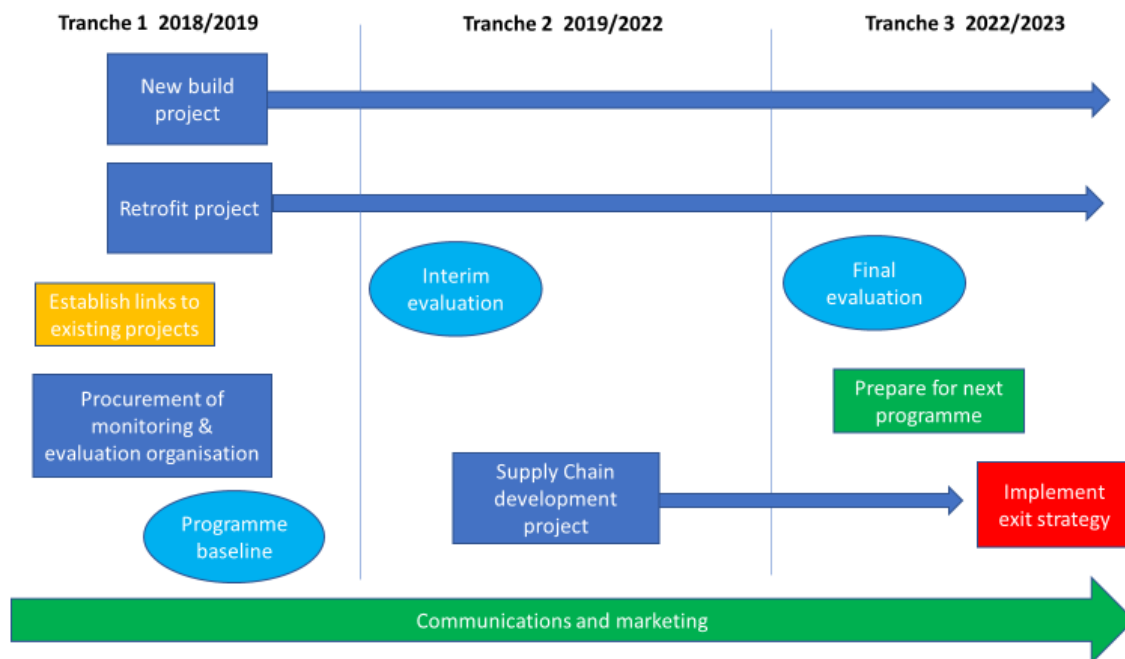


Figure 8 – outline programme plan

### 14. Develop and confirm the business case

Constantly reviewing the business case and ensuring that the programme is on track to deliver the expected benefits and value for money is a key task for the programme team.

### 15. Consolidate programme definition

The programme team will generate appropriate logs, plans and policies.

### 16. Prepare for the first tranche

Prior to seeking approval of the HAPS Programme Board to proceed, the programme team will ensure that all the key elements to deliver a successful programme are in place. Choices will be made by the SRO in consultation with the SBCD Programme Board and the Programme Manager to assess which combination of people, processes and technology (and locations) are most likely to realise the vision and achieve the outcomes described in the blueprint.

### 17. Approval to proceed

The HAPS Programme Board will authorise the programme to commence when it is satisfied that the programme is ready and organised to initiate a series of activities that will deliver transformational change and the expected benefits.

## **Benefits realisation strategy**

The benefits for this scheme were identified in the Strategic Case and were assessed in the Economic Case. These are the core benefits and form the initial benefits register. The focus and importance of benefits will change and will be actively managed as the programme develops and is delivered.

The HAPS Programme Board will be responsible for owning benefits up to the point of completion of the programme or until the formation of a new governance structure.

The benefits register will be maintained and owned by the HAPS Programme Board and reviewed and updated monthly.

## **Communication Strategy**

Once the HAPS programme team is in place, the benefits of adopting the HAPS concept will be disseminated across the region and wider.

This will lead to increased confidence with the public, private and third sector together with residents.

The aim of the HAPS project is to identify the optimum mix of technologies and design.

There is the potential for the HAPS project to become a Centre of Excellence for energy efficient homes, as the innovative aspect of the HAPS project is how the technologies are integrated and presented to the occupant and ease of use of technologies.

The programme team in consultation with partners and key stakeholders will agree an official name for the project post approval.

## ***Communicating the benefits of the HAPS programme***

The HAPS programme will deliver a number of significant benefits, which will be communicated through the communication plan, including:

- Vehicle to mainstream energy positive homes across all sectors
- Reduce energy spend through reducing energy consumption for residents

- Reduced CO2 emissions through reduced energy consumption and improved renewables mix
- Uplift in property value from retrofit
- Reduction in fuel poverty
- Improve health and wellbeing through a reduction in respiratory and cardiovascular disease
- Reduction in costs for NHS
- Additional gross jobs created
- Businesses created through development of an integrated and sustainable local supply chain
- Overall improvement in domestic SAP/EPC ratings
- Increased security of supply through demand side response management
- Increase in energy contribution to national grid (on-going discussions)
- Increase in skills due to requirement for staff and training scheme

### ***Communicating the commercial advantage of the HAPS approach***

- The aim of the HAPS programme is to demonstrate the commercial advantage of adopting the HAPS approach which is an incremental staged approach for the delivery of nearly and zero energy homes ultimately leading to the decarbonisation of the domestic housing sector.
- The HAPS programme will develop a model to create a sustainable market for this approach future proofing as best as possible subject to the advancement of renewable and low carbon technologies.
- The HAPS programme will develop different models for different tenures, e.g. Social housing, high income private home owners, low income private home owners and will demonstrate a range of models and design approaches
- The HAPS programme will test a range of building models applicable to different types of tenure. This particularly applies to retrofit. There are also options for combining retrofit and new build in combination for various social groups, especially relating to downsizing for the elderly. It will provide a one stop shop approach to the technology within this range of tenure related business models.



- The HAPS programme will go some way to develop an understanding and cost model of the lifetime payback of the homes as power stations (energy positive homes) approach. The affordability will also depend on the energy market

### ***Building confidence in renewable technologies***

There will be a linked education programme to build confidence in renewable technologies.

Key areas to be covered include:

- Building confidence via an education programme including ‘myth busting’
- The HAPS project will seek to encourage behavioural change with a focus on occupants and suppliers

### **Risk management strategy**

High level risks associated with this scheme were identified in the Strategic Case. These are the core risks and form the initial risk register. The focus and importance of risks will change and will therefore receive active management as the scheme develops.

The approach will be to ensure that risks are:

- **Identified** – includes risks being considered that could affect the achievement of the programme’s objectives, and then described to ensure that there is common understanding of these risks
- **Assessed** – includes ensuring that each risk can be ranked in terms of estimated likelihood, impact and immediacy, and understanding the overall level of risk associated with the programme
- **Controlled** – includes identifying appropriate responses to risks, assigning risk owners, and then executing, monitoring and controlling these responses

The HAPS Programme Board will be responsible for managing and mitigating risks up to the point of completion of the programme or until the formation of a new governance structure.

The risk register will be maintained and owned by the HAPS Programme Board which will be reviewed and updated as required monthly.

### **Reviews**

Gateway Reviews will be undertaken for the City Deal Investment Fund as a whole, which will include the HAPS Programme.

At the end of each tranche of the HAPS programme there should be a full review to assess the ongoing viability of the programme and ensure that the delivery options and strategy remain optimal. The programme's business case, benefits and benefits management approach must be reviewed at the end of each tranche.

The end of tranche review provides a go/no-go decision point for the programme: it should only be allowed to continue to the next tranche if it is still viable. The SRO is accountable for ensuring that this review is undertaken formally, but it will need the authorisation of the SBCE Joint Committee to support the recommendations.<sup>88</sup>

### **Use of special advisors**

Specialist advice has been sought for the development and production of this FBC from Value People Limited, in partnership with the Lead Authority Neath Port Talbot CBC on behalf of SBCE, to ensure that Neath Port Talbot CBC and SBCE maintains control and ownership of the scheme.

Technical input has been provided by Professor Phil Jones, Cardiff University.

### **Regional advisory / technical steering group**

A regional advisory / technical steering group will be established to provide impartial advice to the project team and partner local authorities.

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<sup>88</sup> Managing Successful Programmes, 2011, page 207

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## **Annex A: The benefits of Programme and Project Management**

All organisations have business strategies that set out plans to deliver changes that will drive business objectives e.g. growth and performance.

By breaking a business plan into programmes and projects, senior management ensure a rigorous approach through a standard methodology and a set of techniques that ensure visibility through reporting, control mechanisms, management of risk, cost, quality and change.

A strategy is broken into a portfolio of programmes which deliver outcomes, the programmes are further broken down into projects which deliver outputs. The outputs from projects enable benefits or outcomes to be realised by programme management.

Why are programmes and projects so effective? OGC states that the successful management of change involves several activities which include:

The establishment of a formal programme to deliver the business change:

- Ensuring that key individuals have explicit roles and responsibilities within the programme
- The adoption of a structured project management approach
- Assurance that there are clear communication channels
- Assurance that projects are continually driven by the business case

Each of these activities are assured by programme and project management, because in using programmes and projects to deliver change organisations get access to widely recognised tools, methods, and techniques delivered by recognised and certified experts. For example:

- Establishment of roles and responsibilities is built into project management lifecycles and supported by tools like the RACI Chart
- Project managers work to a structured approach be that a waterfall method like Prince2 or an agile method like Scrum
- These approaches are supported by guidance a body of knowledge, tools and templates. Alignment with the Business Case or strategic goals is built into project and programme methodologies.

- Business case alignment is a prerequisite to prevent white elephant and pet projects

OGC identify several factors for successful business change including: leadership, clear accountability, robust risk management, effective measurement and management of benefits, effective interaction with stakeholders, realistic timescales and sharing of lessons learned. All of these form the founding principles of effective programme and project management and it is not surprising that OGC also list "excellence in programme and project management skills" as a key factor in successfully delivering change.<sup>89</sup>

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<sup>89</sup> Advantages of Project and Program management <https://www.stakeholdermap.com/project-management/advantages-projects-and-programs.html>

## Annex B – Housing need and demand

<b>Housing need and demand in Wales 2006 - 2026</b>					
<a href="http://gov.wales/docs/caecd/research/100707-housing-demand-need-2006-en.pdf">http://gov.wales/docs/caecd/research/100707-housing-demand-need-2006-en.pdf</a>					
	Market	Non Market		20 years	3.95 - thousand units per year
Swansea	13.1	9.7	22.8		<b>3950 units per year</b>
NPT	10	7.7	17.7		
Pembrokeshire	9.8	4.6	14.4		
Carmarthen	16	8.1	24.1		
			79 (thousands)		
<b>Estimates of housing demand from Local Authority Development Plans</b>					
<a href="https://swansea.jdi-consult.net/ldp/readdoc.php?docid=260&amp;chapter=6&amp;docelemid=d39841#d39841">https://swansea.jdi-consult.net/ldp/readdoc.php?docid=260&amp;chapter=6&amp;docelemid=d39841#d39841</a>					
<a href="https://www.npt.gov.uk/media/7321/ldp_written_statement_jan16.pdf">https://www.npt.gov.uk/media/7321/ldp_written_statement_jan16.pdf</a>					
<a href="https://www.pembrokeshire.gov.uk/adopted-local-development-plan">https://www.pembrokeshire.gov.uk/adopted-local-development-plan</a>					
<a href="http://www.cartogold.co.uk/CarmarthenshireLDP/english/text/06_Specific-Policies.html#Ch6_2">http://www.cartogold.co.uk/CarmarthenshireLDP/english/text/06_Specific-Policies.html#Ch6_2</a>					
	No of units	Time	Years	no per year	
Swansea	20106	2010 - 2025	15	1340	<b>3692 units per year</b>
NPT	8760	2011 - 2026	15	584	
Pembrokeshire	5724	2013 - 2021	8	716	
Carmarthen	15778	2006 - 2021	15	1052	
				3692	

## **Annex C – Letters of support**

Active Building Centre – see attached

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## Annex D – Outline Stakeholder Plan

There are many partners and stakeholders within the HAPS programme, with varying degrees of involvement and responsibility. The following table lists and categorises the various organisations and notes whether they are partners or key stakeholders. There are other potential stakeholders such as community groups and the media and these will be managed within the plan.

Programme Partner	Key Stakeholder
SBCR Local Authorities	Home owners
Registered social landlords (RSLs)	Mortgage lenders
SPECIFIC	Private sector house builders
Active Building Centre	Public sector house builders
Local Partnerships	Western Power Distribution (WPD)
Low carbon design consultants	Wales & Welsh Utilities
Flexis	Communications companies
Welsh School of Architecture (WSA)	Energy Catapult
Health Boards & Trusts	Welsh Government
Other City Deal interventions	Welsh Building Regulations
Public Health Wales	Planning Departments
	Building Control Departments
	Welsh Water
	Energy Suppliers
	National Grid
	Energy Saving Trust
	Resource Efficient Wales
	Battery providers
	Low carbon and renewable technology providers
	Tata Steel
	UK Government
	Innovate UK

It is essential to formulate an effective and robust communication and engagement strategy to ensure that all partners and stakeholders are informed of progress and developments of the HAPS programme.

An engagement event will be held to update key stakeholders on developments and provide an opportunity to assess industry engagement. The partners and main stakeholders have been engaged in this programme



since its inception. This demonstrates industry awareness of this proposal and the programmes integration with the wider landscape. This is key to the successful delivery and sustainability of this programme. Detailed attention is required to ensure the further and ongoing engagement of mortgage providers, to ensure that there is adequate understanding of, and financial support for homeowners in, the HAPS programme.

## Table of stakeholder events

Stakeholder	Activity
Smart low carbon study project	Questionnaire
Smart low carbon study project	Workshop
Solcer House	Proof of concept demonstration project
NPT RSLs (19/05/17)	Innovation Funding
Regional Regeneration Directors	On-going engagement
Regional HAPS working group	Monthly meetings since 14.07.2017
Local Partnerships	On-going engagement
WPD	On-going engagement
Utilities companies incl. Wales and West	Ad-hoc when required
Private Sector construction companies	On-going engagement
Welsh Government	On-going engagement
Welsh Building Regulations	On-going engagement
Registered Social Landlords (RSLs	On-going engagement
Private sector house builders	On-going engagement
TATA	On-going engagement
Planning departments	On-going engagement
Flexis	On-going engagement
Welsh School of Architecture	On-going engagement

Welsh Water	Discussions to take place how to integrate water efficient services and devices into the HAPS programme
Wider Public	An effective and structured engagement strategy will be formulated and implemented

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## **Annex E - HAPS specifications**

### **New Build**

For new build there are two levels:

1. Intermediate 'elemental' approach. This focusses on particular aspects of the design, for example, specifying passive house standards (no renewables), or adding technology to an existing house type (for example, solar PV). This might be regarded as an intermediate step towards a higher standard, and something housing providers might feel more comfortable with as part of the transition to a higher standard.
2. Energy positive whole system approach. This will aim for SOLCER level of energy efficiency, combined with the integration of renewable energy and energy storage into the design. This has the potential to achieve an energy positive performance.

### **Retrofit**

For retrofit there are two levels:

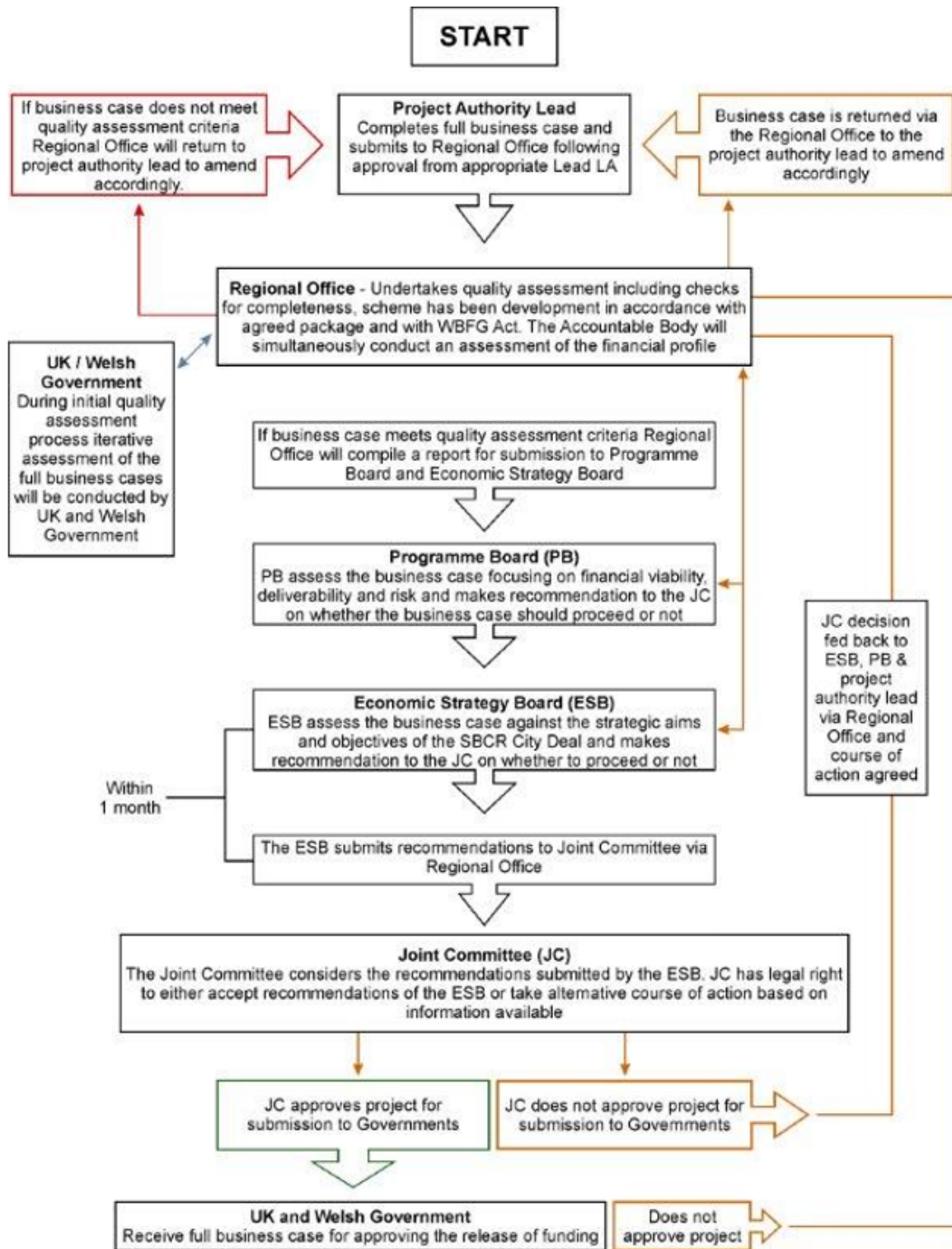
1. Elemental 'shallow' retrofits: One, or a few measures applied, for example, EWI, solar panels, etc. Typical of current (e.g. Arbed) programmes – costs around £10,000 per house.
2. Whole-house 'deep' retrofits: Integrating a multiple package of measures appropriate to specific house types. Typically includes fabric, renewables and energy storage, plus replacing heating system where appropriate – costs around £25,000 to £30,000.

### **Flexible design strategy**

The HAPS approach will be tested and refined during the pilot/pathfinders developments and through the duration of the programme.

A flexible design strategy will be established to ensure the HAPS approach can be adapted to the variety of challenges and constraints associated with the mix of tenure and geography in the region.

# Annex F – Business case approval process



## EXECUTIVE BOARD

Monday, 16 March 2020

**PRESENT:** Councillor L.M. Stephens (Chair)

**Councillors:**

C.A. Campbell, G. Davies, H.A.L. Evans, L.D. Evans, P.M. Hughes, P. Hughes-Griffiths and D.M. Jenkins

**The following Officers were in attendance:**

W. Walters, Chief Executive  
C. Moore, Director of Corporate Services  
J. Morgan, Director of Community Services  
G. Morgans, Director of Education & Children's Services  
R. Mullen, Director of Environment  
L.R. Jones, Head of Administration and Law  
J. Fearn, Head of Property  
J. Jones, Head of Regeneration  
H. Morgan, Economic Development Manager  
K. Thomas, Democratic Services Officer

**Chamber, County Hall, Carmarthen, SA31 1JP - 10.00 - 10.30 am**

**1. APOLOGIES FOR ABSENCE AND OTHER MATTERS**

Apologies for absence were received from Councillors E. Dole and J. Tremlett

Councillor M Stephens, at the conclusion of the meeting, presented an update to the Executive Board on the work being undertaken by the Council and other public bodies in the County in preparing for a potential coronavirus outbreak within the County. She advised the Council would be following advice issued by Public Health Wales and regularly updating its website with any new advice received and that members and officers of the authority, together with the public, were being urged to regularly check the website for new information and to follow public health hygiene advice.

**2. DECLARATIONS OF PERSONAL INTEREST.**

There were no declarations of personal interest.

**3. TO SIGN AS A CORRECT RECORD THE MINUTES OF THE MEETING OF THE EXECUTIVE BOARD HELD ON THE 24TH FEBRUARY 2020**

**RESOLVED** that the minutes of the meeting of the Executive Board held on the 24<sup>th</sup> February, 2020 be signed as a correct record.

**4. QUESTIONS ON NOTICE BY MEMBERS**

The Chair advised that no questions on notice had been submitted by members.

## 5. PUBLIC QUESTIONS ON NOTICE

The Chair advised that no public questions had been received.

## 6. COUNCIL'S REVENUE BUDGET MONITORING REPORT

The Executive Board considered the revenue budget monitoring report which provided the latest budgetary position as at 31<sup>st</sup> December 2019, in respect of the 2019/2020 financial year.

Overall, the monitoring report forecasted an end of year overspend of £2,750k on the Authority's net revenue budget, representing a £1m reduction on that previously reported, with an overspend at departmental level of £4,055k. The HRA was predicting a £480k underspend to the year end.

The Executive Board was advised that the most significant pressure point was within the Education and Children Services budget which was forecasting an overall over spend of £3.937m at year end comprising a departmental overspend of £737k and a delegated schools budget overspend of £3.2m. Consequently, the department needed to critically examine that position.

The Executive Board Member advised that whilst the current forecasted results were based up to the 31<sup>st</sup> December, 2019 that presented the Authority with a significant challenge, which, if continued into the next financial year would be at an unsustainable level. It also needed to be recognised that the authority would be likely to incur additional expenditure as a consequence of the coronavirus outbreak. The Board was assured appropriate structures had been established to record additional expenditure and planning was taking place to ensure the authority had the necessary funds available to provide for appropriate expenditure. Officers were also liaising with the Welsh Government to ensure the authority could draw down any funds that may be made available in due course.

In light of the current forecast of a potential significant overspend at departmental level, the report recommended that Chief Officers and Heads of Service continue to critically review their budgetary positions and implement appropriate mitigating actions to deliver their services within their allocated budgets as a matter of urgency.

### **UNANIMOUSLY RESOLVED that:**

**6.1 the Revenue Budget Monitoring Report be received;**

**6.2 Chief Officers and Heads of Service continue to critically review their budgetary positions and implement appropriate mitigating actions to deliver their services within their allocated budgets as a matter of urgency.**

## 7. CAPITAL PROGRAMME 2019-20 UPDATE

The Executive Board considered a report which provided an update of the latest budgetary position for the 2019/20 capital programme as at the 31<sup>st</sup> December 2019.

It was noted that a net spend of £58,900k was forecasted compared with a working net budget of £60,454k giving a £1,554k variance. The net budget had been re-profiled by £2.020m from 2019/20 to future years to take account of updated spend profile information. The budget slippage from 2018/19 had also been included within the figures appended to the report.

In addition, the Executive Board noted that an Education and Children's Services budget re-profiling exercise was currently being undertaken to reflect the progress of schemes within the 5 year capital programme on the MEP programme.

**UNANIMOUSLY RESOLVED that the capital programme update report be received.**

## **8. ERW FOR THE FUTURE**

The Executive Board considered a report on Carmarthenshire's position and response to the options appraisal produced on the future arrangements for ERW.

The Executive Board noted the report set out the background to ERW'S inception, challenges, drivers for change, future funding issues and the reasons why an alternative Consortia footprint was being considered. The report also set out the following four options, as detailed in Appendix 1 together with their pros and cons, that were to be presented to ERW for its consideration:-

- Option 1 - Maintain the status quo
- Option 2 - Transfer to a model based on the City Deal and growing Mid Wales Partnerships
- Option 3 - Dyfed Powys (Ceredigion Proposal) and West Glamorgan footprints;
- Option 4 - To operate school improvement as individual councils (those councils who wish to continue collaboration continue to do so).

The Executive Board's attention was drawn to the four recommendations detailed within the report and to a suggestion that recommendation 1 be amended to remove the reference to 'agree' and replace it with 'consider. If endorsed, the recommendation would then read "The Executive Board is requested to consider the Swansea Bay City Deal footprint, subject to the provisions of the legal agreement. That amendment was considered necessary so as to not commit the Council to any new footprint at the current moment and which would clearly link in with recommendation 4.

The Executive Board, having considered each of the four options, felt Option 2 to be the preferred footprint for Carmarthenshire, and that it would be advantageous if ERW's other constituent authorities agreed with that option to avoiding them having to issue 'Withdrawal Letters'.

**RESOLVED:**

- 8.1 That Option 2 be considered as the preferred option for Carmarthenshire, subject to the provisions of the Legal Agreement;**



- 8.2 That Carmarthenshire County Council issues Notice to withdraw from ERW, should unanimous withdrawal not be agreed, subject to the provisions of the Legal Agreement;
- 8.3 That subject to the provisions of the Legal Agreement a one year transition period to 2020/21 be agreed
- 8.4 That the Director of Education and Children's Services, the Executive Board Member for Education and Children's Services, in liaison with the Leader and Chief Executive Officer develop the preferred model and ascertain the impact of any changes (including legal, HR and financial), subject to the provisions of the Legal Agreement.

## 9. HOMES AS POWER STATIONS

The Executive Board considered a report on the Swansea Bay City Deal 'Homes as Power Stations' regional business case, being led by Neath Port Talbot Council (detailed as appendix 1 to the report) for submission to the Portfolio Management Office, in accordance with the City Deal Implementation Plan in order to secure City Deal funding approval.

The Executive Board noted that the programme's aims were to facilitate the adoption of energy efficiency measures in both new build and retrofit homes across the region, to demonstrate the viability and benefits of energy efficiency homes and to mainstream the concept in the public and private sectors

### UNANIMOUSLY RESOLVED TO RECOMMEND TO COUNCIL THAT:-

- 9.1 the Homes as Power Stations Business Case, detailed in Appendix 1 to the report, be endorsed and its formal submission to the Portfolio Management Office be authorised in accordance with the City Deal Implementation Plan to secure City Deal Funding approval;
- 9.2 delegated authority be granted to the Head of Regeneration, in consultation with the Leader and relevant Executive Board Members, to approve any amendments to the business case following approval in light of any amendments that may be required by the Joint Committee of the Swansea Bay City Deal;
- 9.3 the Head of Regeneration, in consultation with the Director of Corporate Services, the Leader and any relevant Executive Board Members be authorised to enter into any grant agreements or associated documentation that might be necessary to draw down funding from the UK/Welsh Government or the Accountable Body of the Swansea Bay City Deal.

## 10. PARC HOWARD COLLABORATION GROUP

The Executive Board considered a report on the membership of and the background to the Parc Howard Collaboration Group between Carmarthenshire County Council and Llanelli Town Council. The Board was requested to formalise the membership and governance arrangements for the Group.

### UNANIMOUSLY RESOLVED:-



- 10.1 The Terms of Reference for the Parc Howard Collaboration Group be endorsed;**
- 10.2 That the County Council Members appointed to represent the Council on the Parc Howard Collaboration Group be:**

**Councillor Peter Hughes Griffiths  
Councillor Hazel Evans  
Councillor Giles Morgan  
Councillor John Jenkins**

- 10.3 That the substitute members for the Council's representation on the Parc Howard Collaboration Group be drawn from the remaining members of the Executive Board.**

- 11. ANY OTHER ITEMS OF BUSINESS THAT BY REASONS OF SPECIAL CIRCUMSTANCES THE CHAIR DECIDES SHOULD BE CONSIDERED AS A MATTER OF URGENCY PURSUANT TO SECTION 100B(4)(B) OF THE LOCAL GOVERNMENT ACT, 1972.**

The Chair reported that there were no items of urgent business.

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**CHAIR**

\_\_\_\_\_  
**DATE**

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## EXECUTIVE BOARD

Monday, 1 June 2020

**PRESENT:** Councillor E. Dole (Chair)

**Councillors:**

C.A. Campbell, G. Davies, H.A.L. Evans, L.D. Evans, P.M. Hughes, P. Hughes-Griffiths, D.M. Jenkins, L.M. Stephens and J. Tremlett

**The following Officers were in attendance:**

W. Walters, Chief Executive;  
C. Moore, Director of Corporate Services;  
J. Morgan, Director of Community Services;  
G. Morgans, Director of Education & Children's Services;  
R. Mullen, Director of Environment;  
L.R. Jones, Head of Administration and Law;  
P.R. Thomas, Assistant Chief Executive (People Management & Performance);  
D. Hockenhull, Marketing and Media Manager;  
G. Morgan, Democratic Services Manager;  
M.S. Davies, Democratic Services Officer.

**Virtual Meeting: 10.00 am - 10.25 am**

**1. APOLOGIES FOR ABSENCE**

There were no apologies for absence.

**2. DECLARATIONS OF PERSONAL INTEREST**

There were no declarations of personal interest.

**3. MINUTES - 16TH MARCH 2020**

**UNANIMOUSLY RESOLVED** that the minutes of the meeting of the Executive Board held on the 16<sup>th</sup> March, 2020 be signed as a correct record subject to the letter 'o' in resolution 9.3 [Homes as Power Stations] being replaced with the word 'and'.

**4. PUBLIC QUESTIONS ON NOTICE**

The Chair advised that no public questions had been received.

**5. QUESTIONS ON NOTICE BY MEMBERS**

The Chair advised that no questions on notice had been submitted by members.

**6. URGENT DECISIONS TAKEN BY OFFICERS TO DATE SINCE THE CORONAVIRUS PANDEMIC**

The Leader, in introducing this item and on behalf of the Executive Board, paid tribute to all staff for the work they had undertaken, often beyond the call of duty, to ensure the Authority's services had, in the main, been able to function as efficiently and as normally as was possible under the current circumstances.

The Executive Board considered a report detailing urgent decisions taken by Officers to date during the current coronavirus pandemic and following the suspension of most democratic meetings as a precaution. Under the Scheme of Delegation to Officers in the Authority's Constitution "determination of any urgent matter in the purview of the Council, the Executive Board or any Committee is vested in the Chief Executive and all Directors where it is impractical to convene a meeting of those bodies to consider the matters in hand." Meetings had been suspended due to factors such as lockdown, social distancing requirements and the number of members self-isolating.

The Board was advised that since the report had been written arrangements were now in hand to revert to the formal democratic decision-making processes and meetings would be recommenced albeit at least partially on a remote attendance basis.

**UNANIMOUSLY RESOLVED That the urgent decisions taken by officers be noted.**

**7. REPORT OF THE STATUTORY DIRECTOR OF SOCIAL SERVICES**

The Executive Board considered a report which reflected the position of key Social Services in Carmarthenshire during the National Emergency caused by Covid 19 and action taken. The report did not include all areas of activity as these would be covered in the Director of Social Services' annual report later in the year or by any further notes of advice deemed necessary to report.

It was considered that overall the response by the council had been effective in maintaining social care services in extraordinarily difficult circumstances. Significant support financially and direct intervention and support by the Leader of the council, the Executive Board Member for Social Care and Health and the Chief Executive had contributed to the maintenance of most core provision to a good standard despite facing unprecedented challenges. The impact of the virus on residents in care homes remained a serious and ongoing concern in Carmarthenshire as it was across much of Wales. It was emphasised that throughout this emergency the thoughts of all were with those residents, care staff and families who had been impacted on so tragically by this virus.

The Executive Board Member for Social Care and Health paid tribute to the work being undertaken by staff in the social care and health sector under the present circumstances.

**UNANIMOUSLY RESOLVED to note the position detailed in the report and confirm the actions taken.**

**8. ANY OTHER ITEMS OF BUSINESS THAT BY REASONS OF SPECIAL CIRCUMSTANCES THE CHAIR DECIDES SHOULD BE CONSIDERED AS A MATTER OF URGENCY PURSUANT TO SECTION 100B(4)(B) OF THE LOCAL GOVERNMENT ACT, 1972**

The Chair advised that there were no items of urgent business.

\_\_\_\_\_  
CHAIR

\_\_\_\_\_  
DATE