



***SOUTH WEST WALES CORPORATE JOINT  
COMMITTEE - ENERGY SUB-COMMITTEE***

***2.00 PM MONDAY, 6 NOVEMBER 2023***

***VIA MICROSOFT TEAMS***

**All mobile telephones to be switched to silent for the duration of the meeting**

**Webcasting/Hybrid Meetings:**

This meeting may be filmed for live or subsequent broadcast via the Council's Internet Site. By participating you are consenting to be filmed and the possible use of those images and sound recordings for webcasting and/or training purposes.

1. Welcome and Chairs Announcements
2. Declarations of Interests
3. Terms of Reference (*Pages 3 - 8*)
4. South West Wales Regional Energy Policy and Scene Setting (*Pages 9 - 32*)
5. Local Area Energy Plan (LAEP) Progress Update (*Pages 33 - 46*)
6. Future Priorities and Forward Work Programme (*Pages 47 - 48*)
7. Urgent Items  
Any urgent items at the discretion of the Chairperson pursuant to Section 100BA (6)(b) of the Local Government Act 1972 (as amended).

**K.Jones**  
**Chief Executive**

**Civic Centre**  
**Port Talbot**

**Tuesday, 31 October 2023**

**Committee Membership:**

**Chairperson:**      **Councillor D.Simpson**

**Councillors:**      P.Miller, A.Owen, A.Lewis and J.Hurley

**National Park**

**Representatives:** S.Alderman and L.Bickerton

## SOUTH WEST WALES CORPORATE JOINT COMMITTEE

6<sup>th</sup> November 2023

### REPORT OF THE MONITORING OFFICER

**Report Title:** Terms of Reference of the Energy Sub Committee of the South West Wales Corporate Joint Committee

<b>Purpose of Report</b>	To note the terms of reference for the CJC Sub-Committee in respect of Energy
<b>Recommendation</b>	It is recommended that members note the terms of reference of the Energy Sub-Committee
<b>Report Author</b>	Craig Griffiths
<b>Finance Officer</b>	N/A
<b>Legal Officer</b>	Craig Griffiths

#### Background:

1. The Local Government and Elections (Wales) Act 2021 (“the LGE Act”) created the framework for a consistent mechanism for regional collaboration between local government, namely Corporate Joint Committees (CJCs).
2. The CJC will exercise functions relating to strategic development planning and regional transport planning. They will also be able to do things to promote the economic well-being of their areas. In contrast to other joint committee arrangements, CJCs are separate corporate bodies which can employ staff, hold assets and budgets, and undertake functions.
3. The South West Wales CJC will comprise Carmarthenshire County Council, the City and County of Swansea Council, Pembrokeshire County Council and Neath Port Talbot County Borough Council (“the Constituent Councils”). In respect of some functions, both Pembrokeshire National Park and Bannau Brycheiniog National Park will also be members in respect of strategic planning and co-opted members (non-voting) in other areas.
4. In order to implement the legislative requirements, it was proposed that the CJC have four Sub Committees, with the chair of each Sub-Committee being drawn from the Leaders of the Constituent Councils (or their nominated deputies) and shared between the four authorities.
5. Attached at Appendix 1 of this Report are the terms of reference for the Energy Sub Committee.

#### Financial Impacts:

6. No impacts

**Integrated Impact Assessment:**

7. The CJC is subject to the Equality Act (Public Sector Equality Duty and the socio-economic duty), the Well-being of Future Generations (Wales) Act 2015 and the Welsh Language (Wales) Measure, and must in the exercise of their functions, have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Acts.
- Advance equality of opportunity between people who share a protected characteristic and those who do not.
- Foster good relations between people who share a protected characteristic and those who do not.
- Deliver better outcomes for those people who experience socio-economic disadvantage
- Consider opportunities for people to use the Welsh language
- Treat the Welsh language no less favourably than English.
- Ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

8. The Well-being of Future Generations (Wales) Act 2015 mandates that public bodies in Wales must carry out sustainable development. Sustainable development means the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the 'well-being goals'.

9. There is no requirement for an Integrated Impact Assessment for this report as the setting up of the CJC is underpinned by legislation and that this report is to note governance arrangements in accordance with legislation.

**Workforce Impacts:**

10. There are no workforce impacts associated with this report.

**Legal Impacts:**

11. No impacts

**Risk Management Impacts:**

12. No impacts

**Consultation:**

13. There is no requirement for consultation in respect of this report.

**Appendices:**

14. Appendix 1 – Terms of Reference

**List of Background Papers:**

25. None

## Appendix 1

### Overarching Aim of Sub-Committee

The Regional Energy Plan (“REP”) approved by the South West Wales Corporate Joint Committee on the 15<sup>th</sup> May 2022 has the overall objective to develop a strategic pathway identifying key interventions to deliver on the region’s ambitions for decarbonising its energy system. An Energy Vision scenario has been modelled to set out a potential decarbonisation route that will put the region on track to achieve a net zero energy system by 2050.

The vision for the South West Wales region is *“harnessing the region’s low carbon energy potential across its on and offshore locations, to deliver a prosperous and equitable net zero carbon economy which enhances the well-being of future generations and the region’s ecosystems, at a pace which delivers against regional and national emissions reduction targets by 2035 and 2050.”*

The priorities for achieving this vision are:

- Energy Efficiency
- Electricity Generation
- Smart and Flexible Systems
- Decarbonise Heat
- Decarbonise Transport
- Regional Coordination

The overarching aim of the Sub-Committee is to oversee the delivery of the REP, highlighting any amendments that may be necessary for the Corporate Joint Committee to then to consider.

### Functions

The Sub Committee shall

- Monitor and review the delivery programme for the REP to include performance, financial and risk management and make recommendations to the Corporate Joint Committee on the development and delivery of the REP consistent with the objectives of the Sub Committee;
- Work with Welsh Government, user groups, industry and other regulatory stakeholders to coordinate energy related opportunities across the region;
- Make recommendations to the Corporate Joint Committee on regional Energy for the South West Wales Region aligned to delivering the REP;
- Where appropriate develop a regional response to Wales Government energy consultation documents for approval by the Corporate Joint Committee for submission to Welsh Government;
- Provide advice and observations relating to energy related issues submitted to the Corporate Joint Committee by other bodies, both inside and outside the South West Wales region; and

### Attendees

The following shall attend the Sub-Committee

- The Executive Leader of the Constituent Council identified as the political lead for Energy
- The Lead Officer of the Constituent Council identified as the officer/constituent council lead for Energy for the purposes of providing professional advice to the Sub-Committee on behalf of the Chief Executive of the Corporate Joint Committee
- The Executive Member from Carmarthenshire County Borough Council for Energy
- The Executive Member from the City and County of Swansea Council for Energy
- The Executive Member from Neath Port Talbot County Borough Council for Energy
- The Executive Member from Pembrokeshire County Borough Council for Energy
- Private Sector Representations for Energy as a non-voting representative
- Officers of constituent councils with management responsibility for Energy (or their nominated representatives) for the purposes of presenting reports and answering any technical questions raised by the Sub-Committee
- Minute Taker (Democratic Services of Neath Port Talbot Council)

The following shall be entitled to attend any Sub-Committee Meeting:

- Chief Executive of the Corporate Joint Committee (Chair) or their nominated representative
- Private Sector representatives
- Monitoring Officer of the Corporate Joint Committee or their nominated representative
- S151 Officer of the Corporate Joint Committee or their nominated representative
- Any invitees of the Chief Executive of the Corporate Joint Committee

### **Frequency of Meetings**

The Sub-Committee shall meet every six (6) months subject to any additional meetings that shall be called to address specific matters or if unanimously agreed by the Sub-Committee.

Where a special meeting is required, this will be convened by the Chief Executive of the Corporate Joint Committee.

Unless notified to the contrary, all meetings shall take place remotely via Microsoft TEAMS

### **Chair**

The meeting shall be chaired by the Executive Leader of the Constituent Council identified as the political lead for Regional Transport Planning.

In their absence, the meeting shall be chaired by an alternative Leader from a Constituent Council as agreed by the collective Constituent Council leaders.

### **Decision Making**

The Sub Committee shall have no decision making powers unless expressly granted by the Corporate Joint Committee

Each constituent council member (excluding the Chair) has one vote and the Chair will not have a casting vote

### **Substitutions**

The Executive Members of each Constituent Council shall be entitled to appoint a representative to attend in their absence subject to notification being provided to the Chief Executive of the Corporate Joint Committee

### **Quorum**

A quorum for the meeting shall be an elected representative from each of the Constituent Councils that comprise the Corporate Joint Committee (excluding the Chair).

### **Constitution and Procedure Rules**

The constitution of the Corporate Joint Committee shall apply to any meetings of the Sub-Committee that take place.



## SOUTH WEST WALES CORPORATE JOINT COMMITTEE ENERGY SUB COMMITTEE

6<sup>th</sup> November 2023

### Report of the Chief Executive

**Report Title: South West Wales Regional Energy Policy and Scene Setting**

<b>Purpose of Report</b>	To set the scene on factors and governance structures influencing regional energy policy and to outline known developments in regional energy.
<b>Recommendation(s)</b>	There are no recommendations arising from the report. It is for information only.
<b>Report Author</b>	Steve Keating, Energy & Sustainability Team Manager, Pembrokeshire County Council
<b>Finance Officer</b>	Chris Moore
<b>Legal Officer</b>	Craig Griffiths

#### **Introduction / Background:**

The Corporate Joint Committee (CJC) for South West Wales has endorsed a Regional Energy Strategy for the region.

This update based upon Appendix 1 'CJC - Energy - Regional Energy policy and scene setting Nov 2023 v1.1' is intended to ensure CJC Members are aware of the regional landscape, drivers and activities already underway.

#### **Financial Impacts:**

This is an update to set the scene on factors and governance structures influencing regional energy policy and to outline known developments in regional energy. Hence, the update itself does not have a direct financial impact.

The Regional energy agenda itself has major and significant potential financial impacts some of which are outlined in Appendix 1 'CJC - Energy - Regional Energy policy and scene setting Nov 2023 v1.1' but defining such impacts is beyond the intended scope of this report.

#### **Integrated Impact Assessment:**

The CJC is subject to the Equality Act (Public Sector Equality Duty and the socio-economic duty), the Well-being of Future Generations (Wales) Act 2015 and the Welsh Language (Wales) Measure, and must in the exercise of their functions, have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Acts.

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- Ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

In recognition of the above duties, the CJC has adopted an Integrated Impact Assessment (IIA) Tool which allows for a 2 stage approach to be undertaken to measure any potential impact of its decisions. It is not considered that an Integrated Impact Assessment (IIA) is required for this report as it does not seek a substantive policy decision from Members.

Notwithstanding this the CJC Energy Sub-Committee is actively engaged in the development of the South West Wales Regional Energy Strategy – looking at developing the best way of harnessing the region’s low carbon energy potential across its on and offshore locations. This will deliver a prosperous and equitable net zero carbon economy which enhances the well-being of future generations and the region’s ecosystems, at a pace which delivers against regional and national emissions reduction targets by 2035 and 2050.

**Workforce Impacts:**

This report and Appendix 1 ‘CJC - Energy - Regional Energy policy and scene setting Nov 2023 v1.1’ has been produced using existing capacity within the regional local authorities and there is no workforce impact beyond allocating time to this specific task.

**Legal Impacts:**

None.

**Risk Management Impacts:**

None.

**Consultation:**

No formal consultation required for the purpose of this report.

**Reasons for Proposed Decision:**

No decision is requested as a result of this report.

**Implementation of Decision:**

No decision is requested as a result of this report.

**Appendices:**

Appendix 1 'CJC - Energy - Regional Energy policy and scene setting Nov 2023 v1.1'.

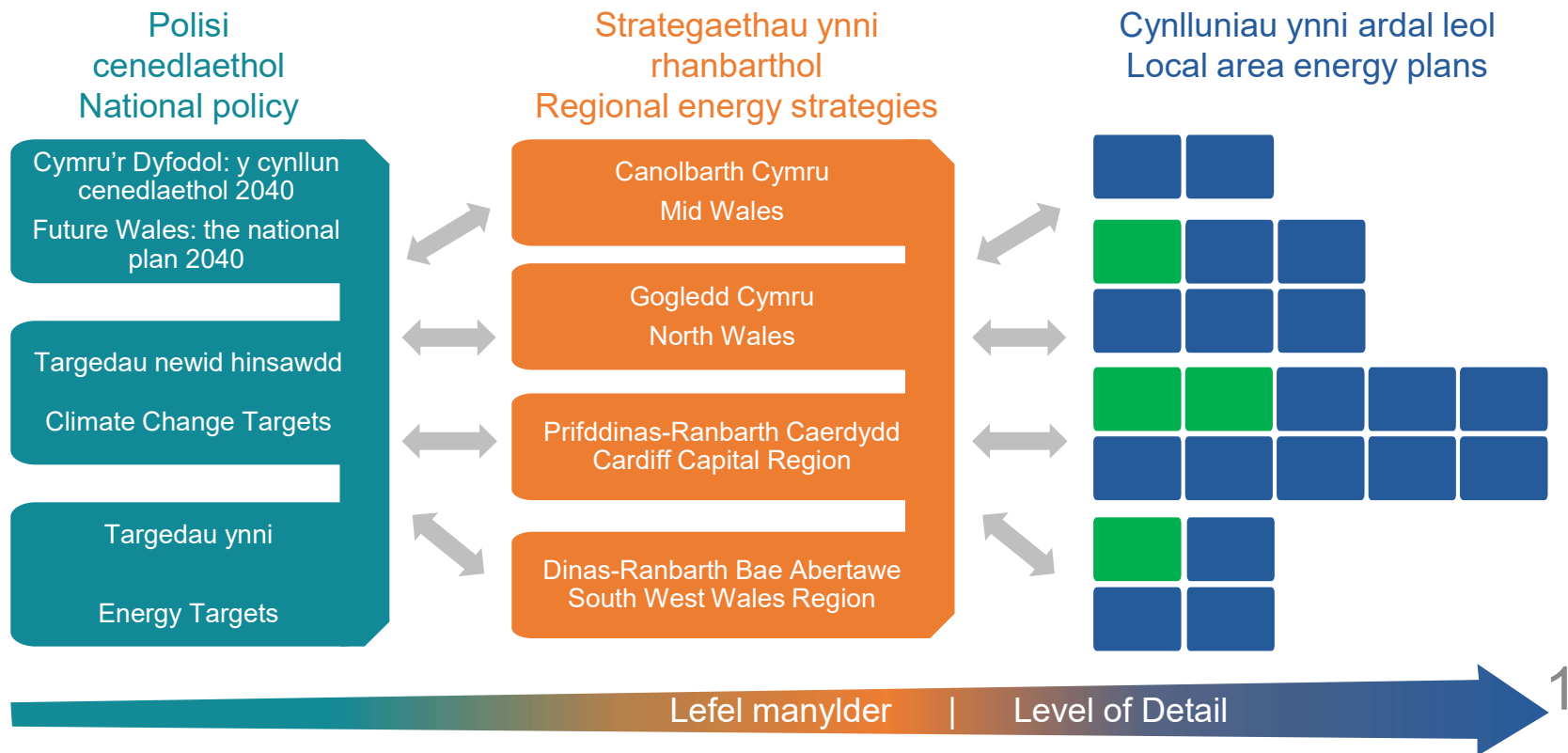
**List of Background Papers:**

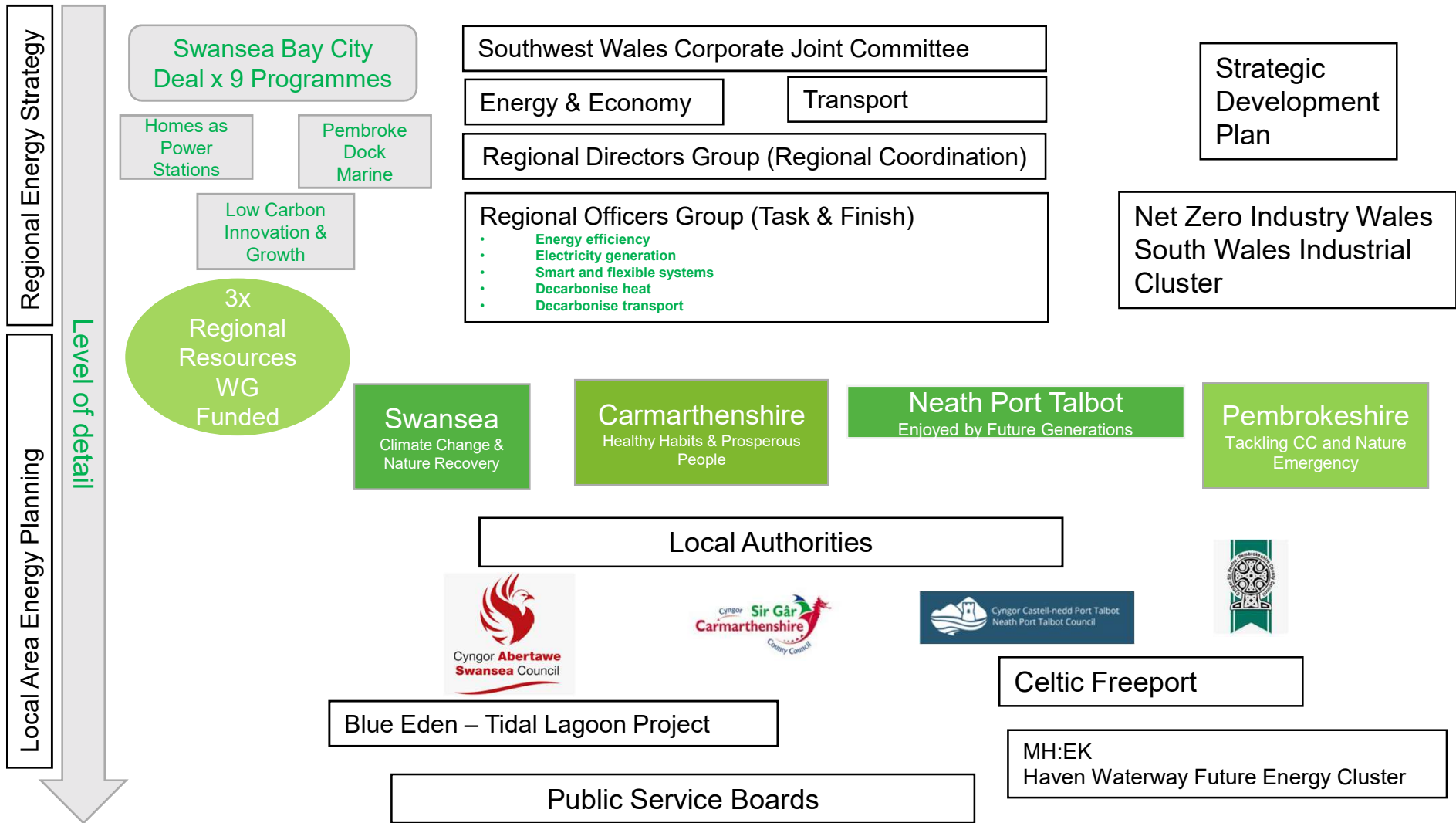
None.

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# Cynllunio ar gyfer system ynni carbon isel sy'n fwy integredig Planning for a more integrated low carbon energy system

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## Wales Wide View



## SWWCJC Corporate Plan - approved action plan for the regional energy strategy

Appendix 2 – Regional Energy Strategy, Well-being objective 1 - action/steps, timescale and impact measures. To deliver the RES, we will take the following steps 2023-2028:

Priority	Actions	Impact Measures
<b>Map available resources and identify resource gaps.</b>	<ul style="list-style-type: none"> <li>Undertake an evaluation exercise to determine that the correct level of resource and expertise is embedded within each Council for the effective delivery of activity and programmes within each specific thematic theme of the strategy:</li> </ul> <ol style="list-style-type: none"> <li>Domestic energy</li> <li>Renewable energy generation</li> <li>Transport and active travel</li> </ol>	Establish regional delivery team.  Alignment to existing programmes.
	<ol style="list-style-type: none"> <li>Commercial and industrial</li> </ol> <ul style="list-style-type: none"> <li>Complete Local Area Energy Plans</li> </ul>	
<b>Formulate implementation programmes alongside our partners, including private industry.</b>	<ul style="list-style-type: none"> <li>Develop prioritised action plans for the four programme themes</li> <li>Enable and facilitate programme and project implementation</li> <li>Align projects (and benefits) with Regional Economic Delivery Plan low carbon objectives</li> <li>Ensure Well-being objective informs Regional Transport Plan.</li> </ul>	Local Authority Energy Plans aligned with Regional Energy Strategy benefits realised.

- Some items in progress:
- CJC Regional Energy Sub Committee
  - Recruitment for LAEP co-ordination/delivery
  - Workshop(s) to hone SWW Regional Energy Strategy and align to LAEPs





## Challenges

- Pace & Scale at the regional strategic level
- Uncertainty around the cost of delivery/net zero (Audit Wales)
- Funding capital and revenue funding for identified projects
- Skills now and future to design, deliver, implement, maintain and monitor
- Policy Reforms & Influence
- Governance – alignment with other regional projects
- Infrastructure



## Regional economy and energy landscape - understanding the landscape, the scale of opportunity and gaps

### Why South West Wales?

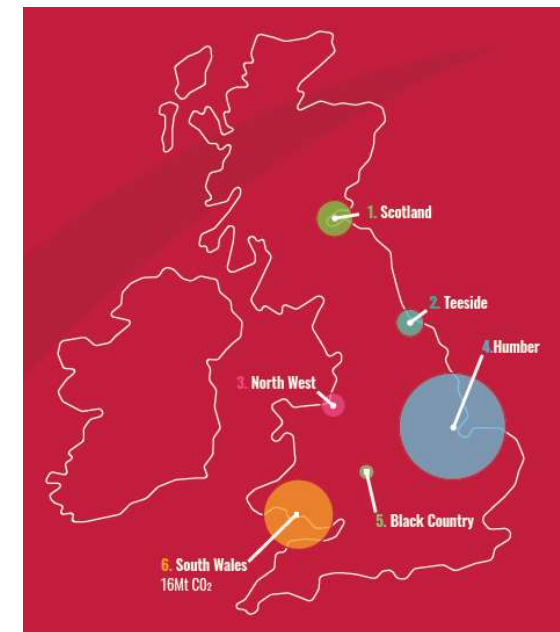
South Wales has the UK's 2<sup>nd</sup> largest Industrial Cluster. Milford Haven is the UK's largest Energy Port - Circa 20% of the UK's energy imports.



RWE Pembroke Power Station 2200MW Combined Cycle Gas Turbine	Valero Pembroke Refinery 270,000 bpd, 10.5m barrels storage	Valero Pembrokeshire Oil Terminal 8.7mb petroleum products storage facility	Dragon LNG Liquefied Natural Gas terminal	South Hook LNG Liquefied Natural Gas Terminal	Puma 1.4m m3 storage facility
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4,000 jobs (40% of total local employment around the Port)

- Tata Steel in Port Talbot - UK's biggest single point emitter
- RWE's Pembroke Power Station - UK's third biggest single point emitter
- Valero's Pembroke refinery – in the UK's top ten single point emitters



A once in a generation opportunity to support the transition to a renewable energy based economy by utilising the abundant renewable energy resources (FLOW, tidal, wave, green hydrogen) off the SW Wales coast, Swansea Bay and the Severn Estuary.

# The South Wales Industrial Cluster (SWIC) collaboration

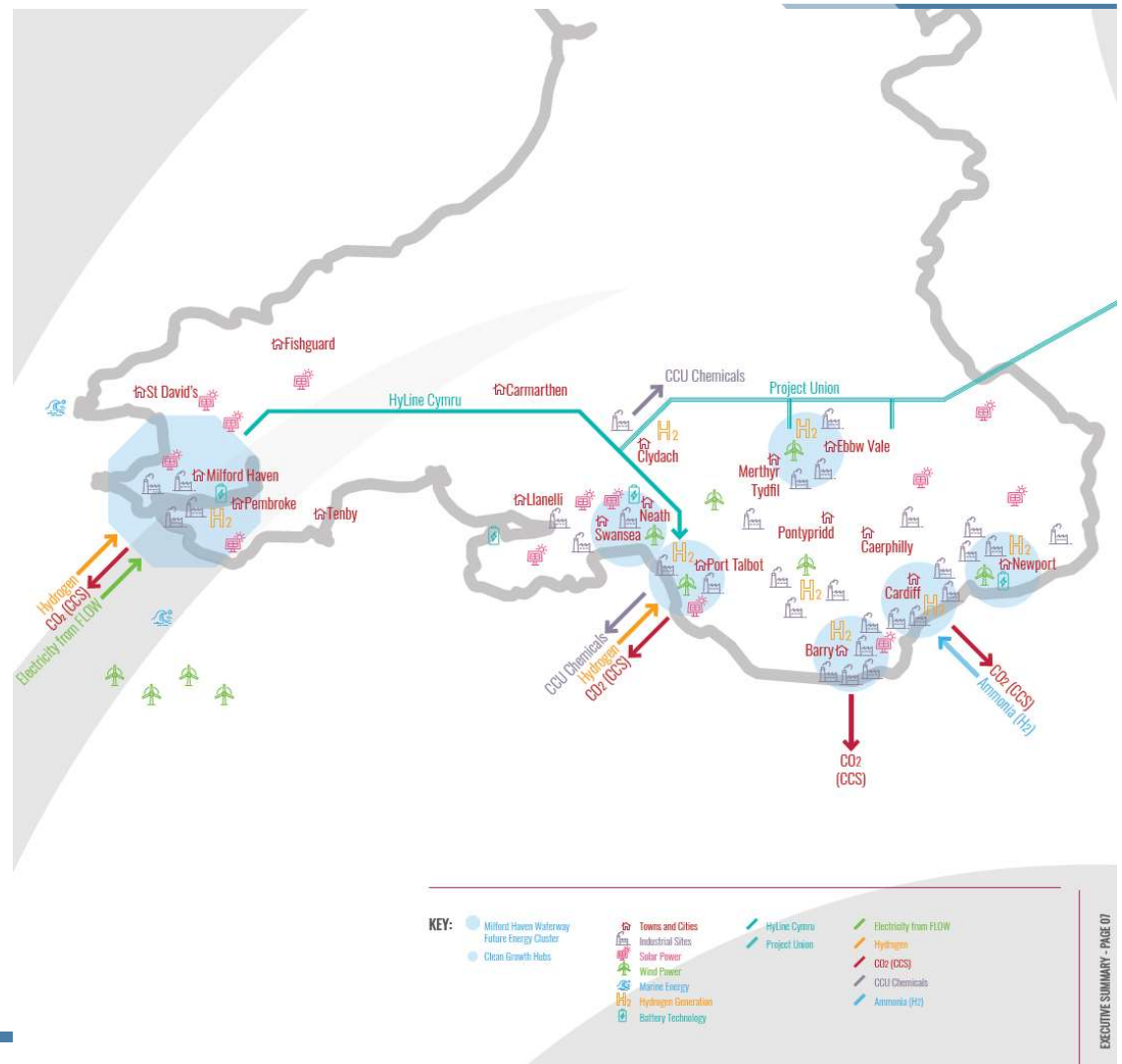
South Wales is home to a significant industrial base, including the UK's largest integrated steelworks, one of the UK's seven oil refineries and one of only four nickel refineries in Europe.

## The SWIC Vision

“Develop a world leading, truly sustainable industrial cluster, befitting the societal needs of 2030, 2040, 2050 and beyond”.

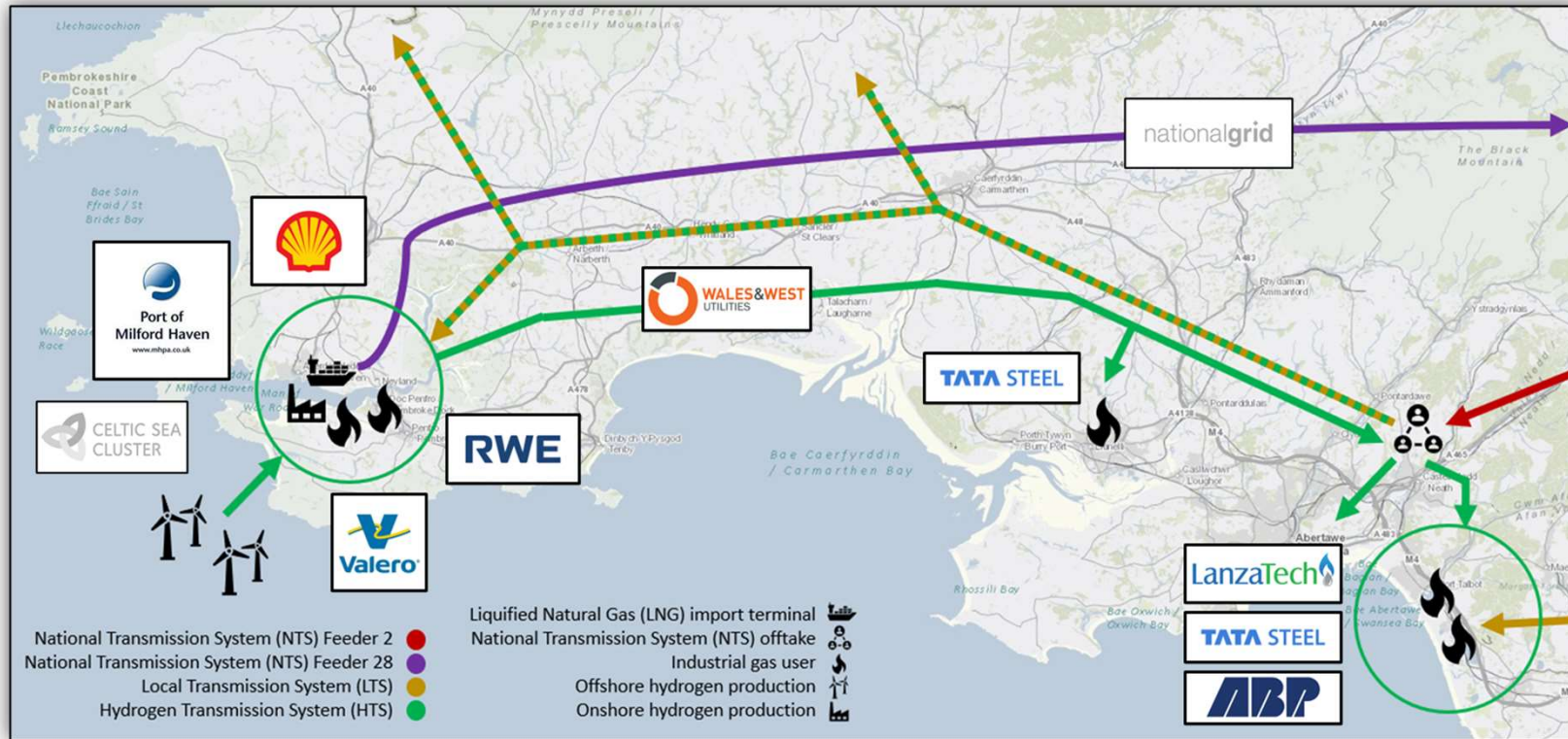
The SWIC Vision showcases ambitious plans to achieve:

- Net zero industries in South Wales by 2040, equating to **40% reduction of current Welsh CO<sub>2</sub> emissions**
- **Retention of 113,000 jobs** and a net positive increase in jobs overall
- **Unlocking £30bn investment opportunities** in the region
- **Growing the £6bn Gross Value Added** from South Wales industry.



# WWU Hydrogen LTS Feasibility – Phase 1 – ‘HyLine Cymru’

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**Vision: – SW Wales is home to a vibrant clean energy cluster, the bedrock for the UK’s hydrogen economy**

### FLOATING OFFSHORE WIND (FLOW)

- The Crown Estate’s (TCE’s) ambition is to unlock up to 4GW of new floating offshore wind capacity by 2035.
- TCE state regional potential to utilise a further 20GW of floating offshore wind capacity by 2045.
- Studies show more is potentially attainable 49.9GW (low) to 120GW (high).
- **3,000 jobs and £682m in supply chain opportunities for Wales and Cornwall by 2030.**
- The Celtic Sea is home to the **first ever floating offshore CfD award** (Hexicon’s 32MW Twinhub project to be built 2025-27)

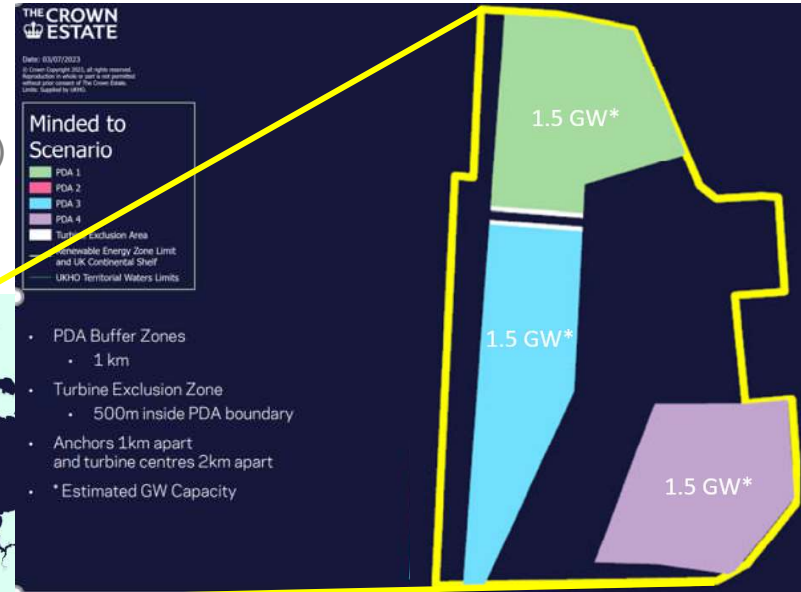
Project Name	Capacity	Developer	Expected Completion
TwinHub	32MW	Hexicon	2025 (contracted)
Erebus	96MW	Blue Gem Wind (a joint venture between Total and Simply Blue Energy)	2026/2027
Valorous	300MW	Blue Gem Wind	2029
Llyr 1	100MW	Floventis (a joint venture between SBM Offshore and Cierco)	Unknown
Llyr 2	100MW	Floventis	Unknown
Whitecross	100MW	Offshore Wind Ltd. (a joint venture between Cobra and Flotation Energy)	Unknown
Pembrokeshire Demonstration Zone	180MW	Wave Hub	Unknown
Llywelyn	300MW	Falck Renewables & BlueFloat Energy	Unknown
Petroc	300MW	Falck Renewables & BlueFloat Energy	Unknown
Gwynt Glas	300MW – 1,000 MW	EDF Renewables UK & DP Energy	Unknown
Celtic Deep 1	98MW	AWC Technology Ltd.	Unknown
Celtic Deep 2	300MW	AWC Technology Ltd.	Unknown

Table 1 Floating wind projects in planning in the Celtic Sea.

## FLOW IN WALES - THE OPPORTUNITY

For perspective UK baseload power consumption 32 GW, peak is 47 GW

- 4.5GW of new FLOW capacity by 2035 (3 x 1.5 GW zones)
- 20GW of FLOW capacity by 2045.



The Bristol Channel and Severn Estuary is home to the second largest tidal range in the world after the Bay of Fundy in Canada

### TIDAL STREAM

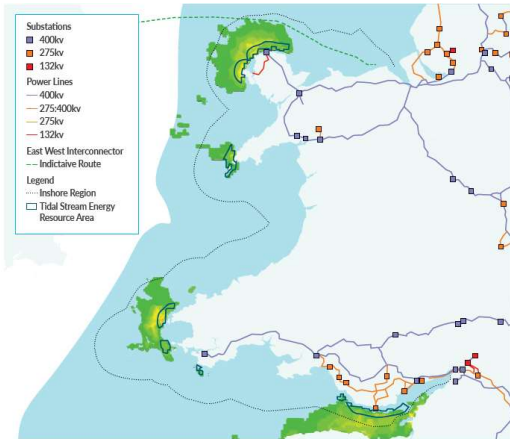


Figure 11 Tidal stream resource area around Wales. Source: Sector locational guidance: tidal stream energy (January 2022) (Welsh Government).

Ramsay Sound - Cambrian Offshore - capacity of up to 1 MW connected to South Wales grid.

Larger area West of Ramsey Island - modelling shows 1.3TWh annual potential.

Anglesey - [Magallanes Renovables](#) - deploying 5.62 MW [Morlais](#) Project - power to grid in 2025.

### TIDAL RANGE

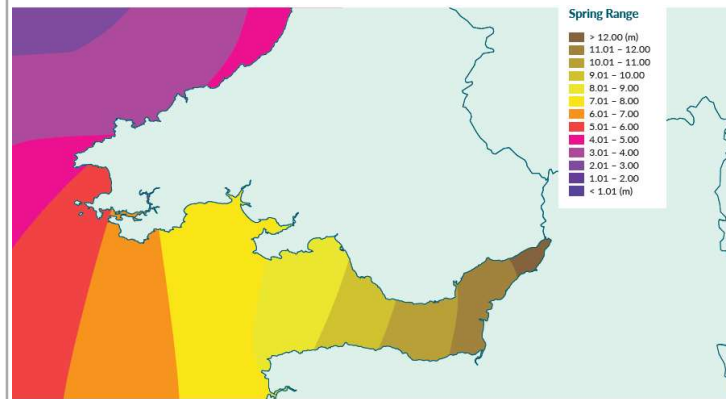


Figure 12 Spring tidal range off the coast of South Wales. Source: renewables-atlas.info (July 2021).

Proposed but yet to be built (Swansea likely first mover):

- 320 MW Swansea Bay Tidal Lagoon (SBTL)
- 1.4 GW Newport Tidal Lagoon
- 3 GW Cardiff Tidal Lagoon
- 12 GW Severn Barrage (up to 10% UK power)

Tidal impoundments can continue to **generate predictable power for around 120 years** and this has not been reflected in most economic assessments which look at 20/30 year terms.

### WAVE

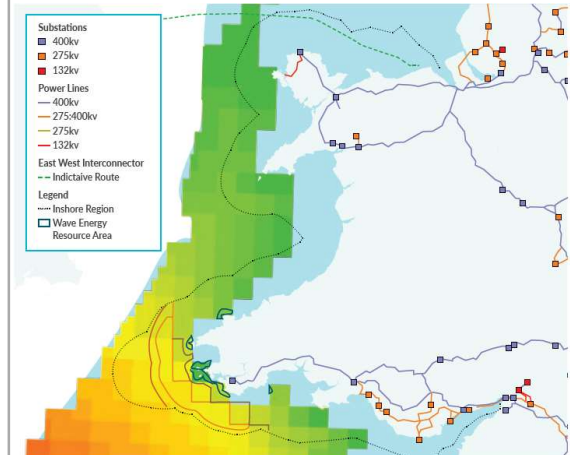


Figure 13 Annual mean wave power. Source: BERR Atlas of UK Renewable Energy Resource (April 2010) & RPS.

Higher resource areas further offshore pose survivability challenges.

Bombora's 1.5 MW mWave device testing at the Marine Energy Test Area (META) in 2023 - largest WEC trial to date globally.

Pembrokeshire Demonstration Zone (PDZ) will be a 180 MW grid connected test area in open sea off Pembrokeshire for the purpose of testing and validating.

## Swansea Port Development Project (formerly Blue Eden)

**A £4bn project, estimated to be worth £114m a year to the Swansea economy, creating up to 2,500 full-time jobs.**

- Expanding the Fabian Way park and ride site to create a green energy transport hub to potentially include a hydrogen manufacturing station for hydrogen-powered transport, an abundance of electric vehicle charging points, and restaurants and flexible working areas for visitors to enjoy.
- Expanding on approved solar farm plans at the former Tir John landfill site to create one of the UK's largest solar energy generating facilities.
- A new manufacturing facility on the former Morrissey Site in SA1 to make high-tech batteries that would store the renewable energy generated by the project and for worldwide distribution.
- A tidal lagoon
- A floating solar facility
- A hyper-scale data centre powered by renewable energy
- An oceanic and climate change research centre
- Energy-efficient eco-homes anchored in the water
- A new district heating system using renewable energy.





## **CURTAILMENT – i.e. the grid can't currently transmit renewable electricity to where it is needed**

- In 2022 the UK generated c.30% of its energy from renewables, of which wind power at c.23% total generation was by far the biggest contributor
- When we're generating more wind power than we can transmit, the National Grid pays the windfarms to turn off ('curtailment'), and pays a (typically gas powered) alternative generator, closer to the demand, to turn on
- In 2022 the UK spent £215m on turning windfarms off, and then another £717m turning on gas power plants to replace the lost wind power

### **Potential solutions:**

- Build more electricity cables to take the power to demand centres (communities will feel this impact - pylons)
- Add energy storage at cable bottlenecks – e.g. lithium batteries, pumped hydro, blue/green hydrogen

Source: [The UK is wasting a lot of wind power | Archy de Berker](#)

## FLOATING OFFSHORE WIND AND GREEN HYDROGEN PRODUCTION

Huge renewable electricity potential. Electricity grid and ports infrastructure upgrades needed. Industrial processes, Heat & Transport emissions hardest to action.

There is potential for green hydrogen to service industry (Haven Waterway/SWIC), regional transport, power generation and heat.

Increasing volumes of floating offshore wind is well suited to production of green hydrogen – produce H2 when curtailed or low UK power demand.

Co-location of hydrogen with offshore wind will enable an increase in usable energy from individual projects as well as providing long-term storage and an alternative fuel source for increased UK electrification.

ORE Catapult estimates that the cost of supplying blue hydrogen is tied to gas prices, which is likely to remain around £145/MWh (£5.70/kg)

OREC forecast the cost of producing green hydrogen from UK floating offshore wind to reduce from around £145/MWh for early commercial projects around 2025-2027 to around £75/MWh by 2030 to £50/MWh by 2040 reducing to £40/MWh (£1.60/kg) by 2050 (cost parity with the cheapest global cost for green hydrogen). (Perspective: A Toyota Mirai can drive 60 miles on 1 kg of hydrogen at a cost of £1.60 by 2050 – before duty etc).

There is huge potential to export UK green hydrogen to Europe and beyond. This opportunity was valued at £48bn per year in ORE Catapult’s Solving the Integration Challenge (StIC) study with hydrogen forming 25% of Europe’s energy needs by 2050.

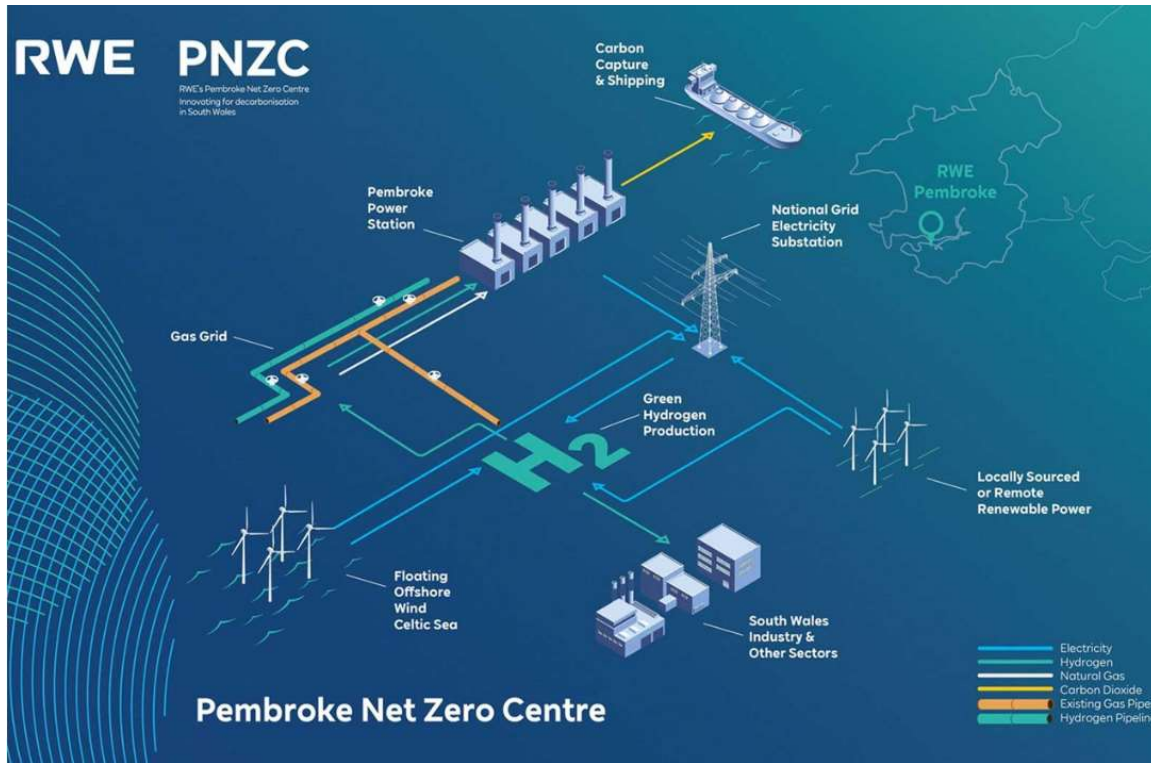
Project Name	Capacity	Developer	Expected Completion
Project Dylan	300MW 1GW	ERM and Source Engie	Commercial windfarm by 2028 Expansion by 2030
Pembroke Net Zero Centre	100-250MW	RWE	2028

Table 2 Welsh offshore renewable projects with hydrogen production.



## Industry 'early mover' example

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### RWE Pembroke Net Zero Centre

£3bn investment in:

- Green hydrogen production, including the development of an electrolyser on the Pembroke site, the development of floating offshore wind (FLOW) in the Celtic Sea. 110 MW green H<sub>2</sub> electrolysis (by 2026) and up to 1GW (by 2030). (UK target for 10 GW by 2030)
- H<sub>2</sub> for fleet, transport, industry, grid.
- Decarbonisation of Pembroke Power Station, including carbon capture.
- The feasibility of hydrogen as a power generation fuel
- RWE £15bn investment in UK



Trafigura (Puma) and Statkraft also planning significant hydrogen production projects in the region

## Swansea Bay City Deal programme

Includes a number of projects that are aligned with the regional energy agenda:

- Pembroke Dock Marine project – MEECE, PDZ, META, Port Development
- Homes as Power Stations
- Supporting Innovation and Low Carbon Growth project.

‘Portfolio Carbon Reduction Assessment’ report (February 2023) provided by the SBCD Portfolio Office, identified a range of contributions:

- Estimated 80,000 sq m of BREEAM excellent floor space
  - 5,000 jobs across renewable and energy sectors
  - Estimated 6,000 skills and talent opportunities for the energy and decarbonisation sectors
  - A regional centre of excellence in the renewable energy sector
  - Growing the supply chains in the installation, marketing and operations of blue and green technologies.
-

# The Future of Rail Innovation

## The UK's first net zero railway

The Global Centre of Rail Excellence will be a purpose built site for world class research, testing and certification of rolling stock, infrastructure and innovative new rail technologies that will fill a gap, not just in UK rail, but across Europe.

The Welsh Government's new 'Global Centre of Rail Excellence' – the first of its kind in the UK – is expected to be fully operational by 2025, bringing up to 300 jobs to the area.

Under the plans, a 6.9 kilometre high-speed testing track and 4.5km low-speed high-tonnage testing track will be built at the Nant Helen site along with a dual platform station.

The facility will be connected to the main Brecon to Neath line, with signalling upgrades also planned as part of the project.



## Green light for transformational Celtic Freeport bid



The Celtic Freeport private-public bid consortium has reacted to today's announcement it has been shortlisted by the UK and Welsh Governments for freeport status.

£160m port infrastructure funding scheme, with a particular emphasis on the “substantial pipeline of potential projects in the Celtic Sea”

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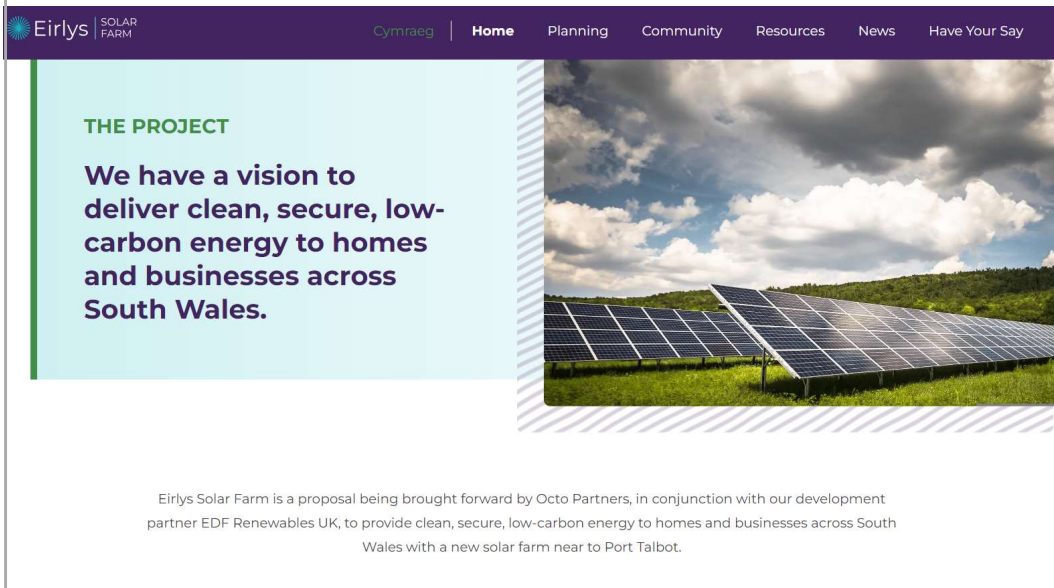
Support 16,000  
new green jobs

Generate £5.5bn  
of new investment

Accelerate the  
roll-out of floating  
offshore wind

## Other regional energy/economy projects:

Proposal for the **29 MW Eirlys Solar Farm** west of Mynydd Morgan in Port Talbot - capable of generating enough renewable electricity for over 7,000 homes



**Eirlys SOLAR FARM** Cymraeg | Home | Planning | Community | Resources | News | Have Your Say

**THE PROJECT**

**We have a vision to deliver clean, secure, low-carbon energy to homes and businesses across South Wales.**

Eirlys Solar Farm is a proposal being brought forward by Octo Partners, in conjunction with our development partner EDF Renewables UK, to provide clean, secure, low-carbon energy to homes and businesses across South Wales with a new solar farm near to Port Talbot.

### Canolfan Eto new 're-use village'

- A circular economy hub at Nant y Caws, Carmarthenshire connecting customers looking to purchase a wide range of recycled items including furniture, bicycles, paint, gardening items and much more
- An education centre for school pupils covering a range of environmental topics.



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## SOUTH WEST WALES CORPORATE JOINT COMMITTEE ENERGY SUB COMMITTEE

6<sup>th</sup> November 2023

### Report of the Chief Executive

**Report Title: Delivery of Local Area Energy Planning in South West Wales**

<b>Purpose of Report</b>	To advise the committee on the progress of delivery of the local area energy plans within the region.
<b>Recommendation(s)</b>	That the committee note the progress made to date and forthcoming key milestones.
<b>Report Author</b>	Vic Camp, Welsh Government Energy Service
<b>Finance Officer</b>	Chris Moore
<b>Legal Officer</b>	Craig Griffiths

**Introduction / Background:** Welsh Government have funded the development of Local Area Energy Plans (“LAEP”) for every local authority within Wales. This follows several local authorities being pilot locations, including Pembrokeshire. The local area energy plans are being delivered by City Science in the South West Wales region for Swansea, Neath Port Talbot & Carmarthenshire.

The programme of work will see final LAEPs being delivered for local authority cabinet consideration towards the end of the 2023-2024 financial year (March 2024).

Following the completion of the LAEPS there will be an exercise undertaken by the technical advisors to Welsh Government to align and consolidate the findings. This will then inform the further development and strategic direction of regional actions, and lead to the creation of a Wales wide National Energy Plan.

Additional points to note:

- Whilst plans are local, they have been developed using regional collaboration and themes aligned with regional energy work, with stakeholder workshops arranged on a thematic and regional basis to ensure collaboration and a regional approach to development, whilst still maintaining a local focus.
- Whilst some of the scenarios and levers are local, others are regional (e.g. skills, transport and infrastructure) and so ensuring the LAEPs remain connected and coherent with regional governance structures is also vital.

**Financial Impacts:** None

**Integrated Impact Assessment:** These will be completed when the LAEPs are ready for local cabinet decision making.

**Workforce Impacts:** Welsh Government have funded the recruitment of 3 new officers into the region to support development and delivery of the Local Area Energy Plans. These officers are not employed by the CJC but are being funded under lead local authority arrangements.

**Legal Impacts:** None

**Risk Management Impacts:** Risks arising as part of the LAEP process are managed as part of programme delivery by ES Catapult.

**Consultation:** A wide range of stakeholders are consulted as part of the development of the LAEPs, further details included in the presentation.

**Implementation of Decision:** N/A

**Appendices:** Appendix 1 – SW Wales LAEP Programme Update Slides

**List of Background Papers:** City Science LAEP presentation.



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**SW WALES REGION  
LAEP PROGRAMME**

Diweddariad  
Update  
10/2023

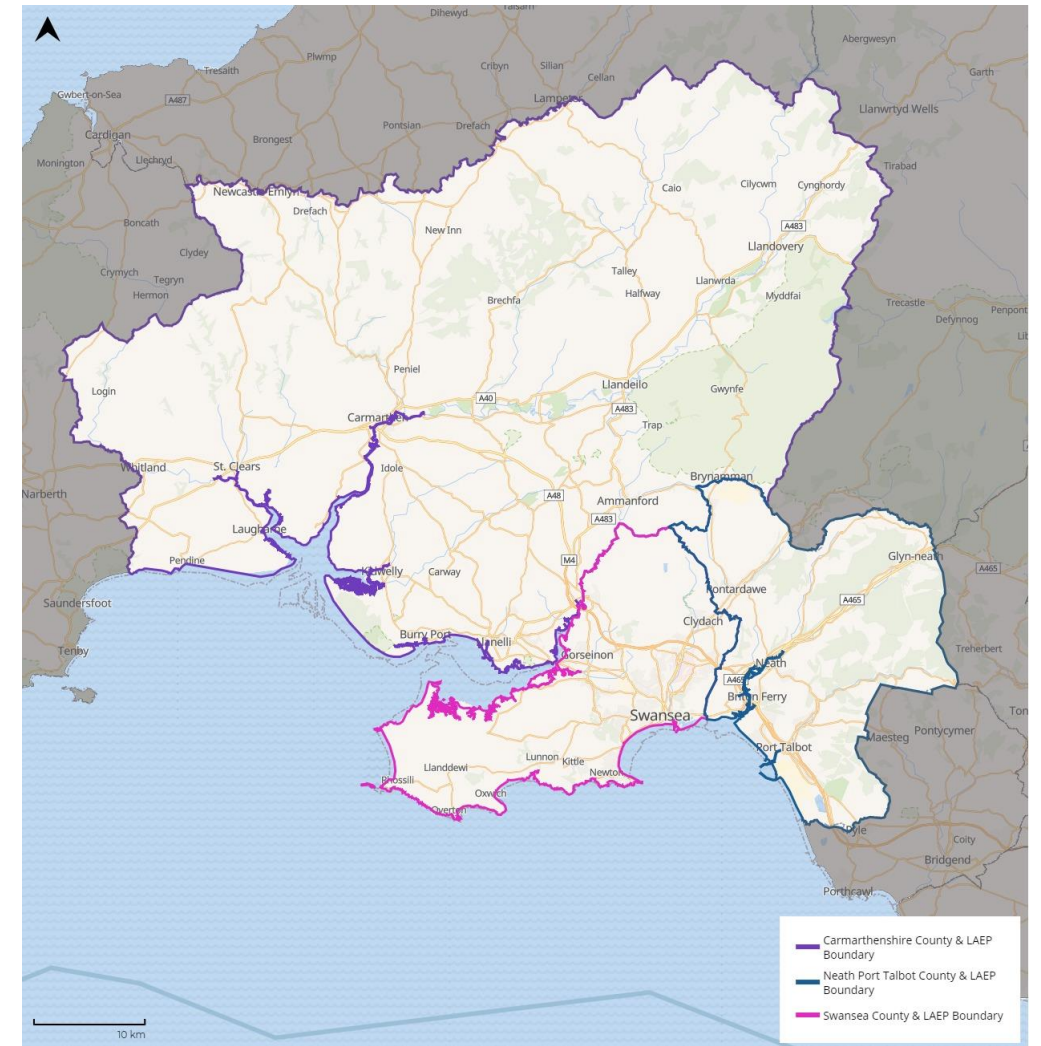
# TROSOLWG O'R RHAGLEN / PROGRAMME OVERVIEW

## SW WALES LAEP PROGRAMME

City Science are producing three LAEPs for SW Wales – Carmarthenshire, Neath Port Talbot and Swansea. Although produced separately and tailored to the local landscape, we will ensure that the three LAEPs are aligned and consistent.

Local Area Energy Planning is a detailed, comprehensive process designed to identify the most effective pathway(s) to decarbonising the local energy system, and set out and agree a Local Area Energy Plan (LAEP) suitable for implementation. Local Area Energy Planning is a whole-system, evidence-based process, led by Local Government and developed collaboratively with defined stakeholders.

The LAEP projects started in February 2023 and run until February 2024.



# TROSOLWG O'R RHAGLEN / PROGRAMME OVERVIEW

## REGIONAL ALIGNMENT

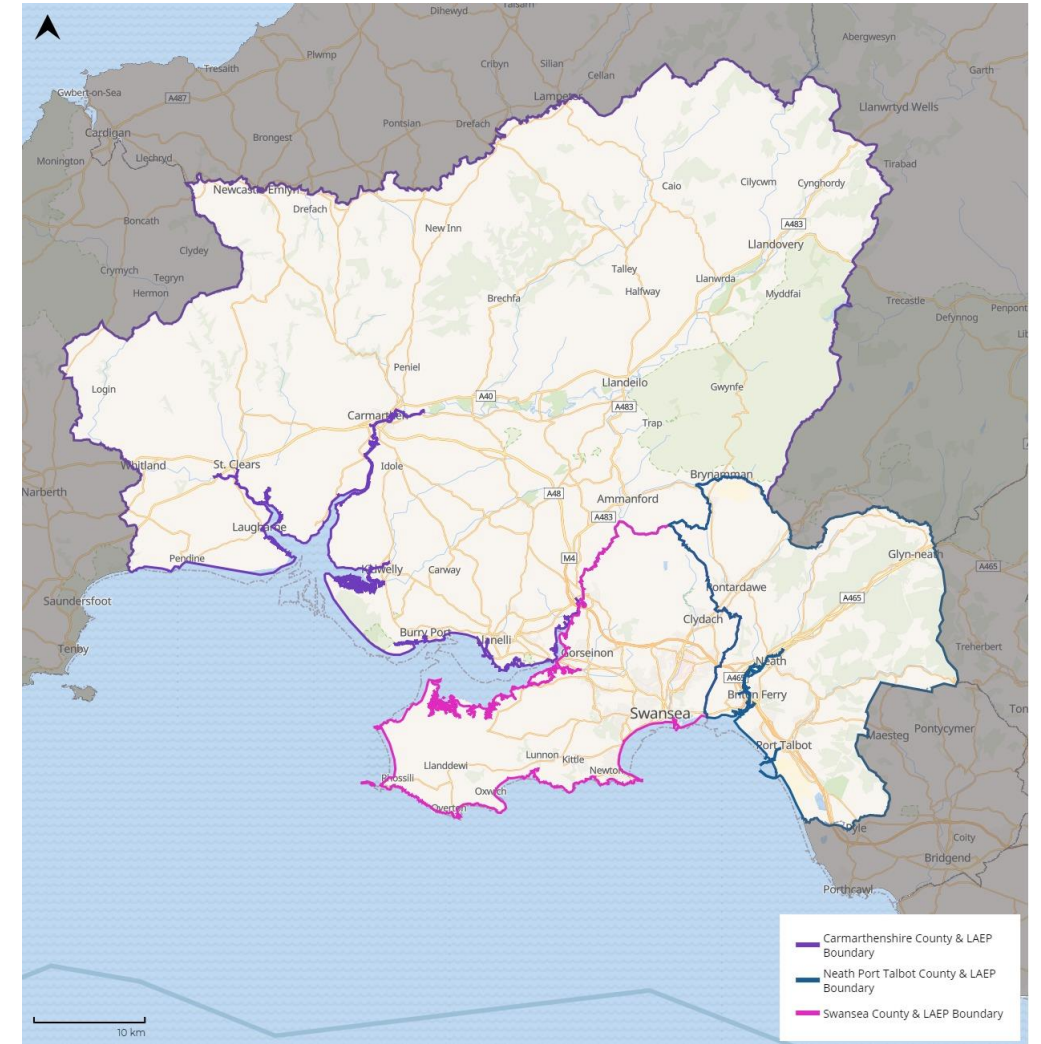
### CJC/LAEP Interaction

- Regional Directors' Group (which reports into CJC) is the regional steering group for LAEP, ensuring alignment with regional plans.
- Whilst plans are local, they have been developed using regional collaboration and themes aligned with regional energy work and so critical that CJC remains aware and involved of the development.

CJC is key stakeholder and individual local councils/cabinets will soon be seeing first draft LAEPs for sign off and this is part of early engagement for that process.

- Whilst many of the scenarios and levers are local, a large number are regional (skills, transport, housing, infrastructure) and so ensuring the LAEP remain connected and transparent with regional governance structures is also vital.
- Whilst CJC is not a governing body for LAEP process it is prudent given the stage in the process to include a very brief update on the progress to date and key next steps.
- There will also be a regional and national "roll up" of all the LAEPs to create for WG a national LAEP, but with a regional view, to help grid/infrastructure/investment evidence base.

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# TROSOLWG O'R RHAGLEN / PROGRAMME OVERVIEW

## PROGRESS THROUGH THE STAGES OF THE LAEP

**Stage 1:** Held regional and local inception meetings and produced regional and local inception report.

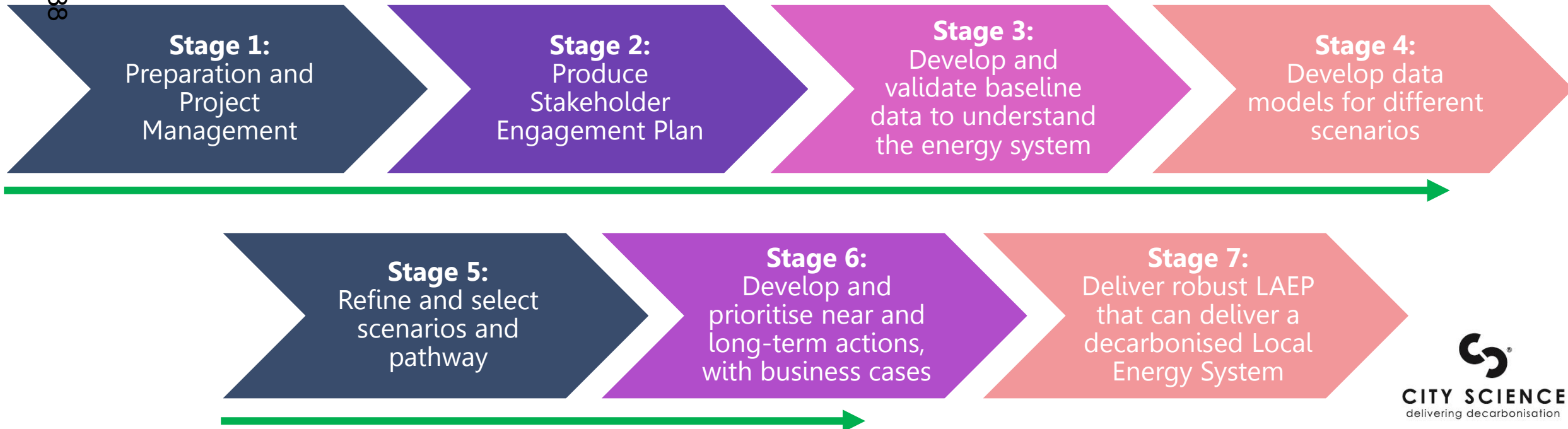
**Stage 2:** We held Stakeholder Engagement Planning Workshops and produced the resulting Stakeholder Engagement Plans.

**Stage 3:** We completed a policy review, conducted all the local area interviews, consolidated and analysed baseline data, and produced, presented, revised and finalised the Baseline Reports.

**Stage 4:** Held Scenarios and Modelling Approach Workshops, tailored the modelling and produced and presented the outputs of the modelling.

**Stage 5:** Held regional Wider Factors Workshops and refined the pathways.

**Stage 6:** Held Actions Workshops, Prioritisation Workshops and are currently running Focus Groups and finalising the actions.



# TROSOLWG O'R RHAGLEN / PROGRAMME OVERVIEW

## STAKEHOLDER ENGAGEMENTS

The LAEP process will include up to 30 stakeholder engagements. This page and the next details the 26 stakeholder engagements chosen at each LAEP project stage, with 4 sessions held back as contingency.

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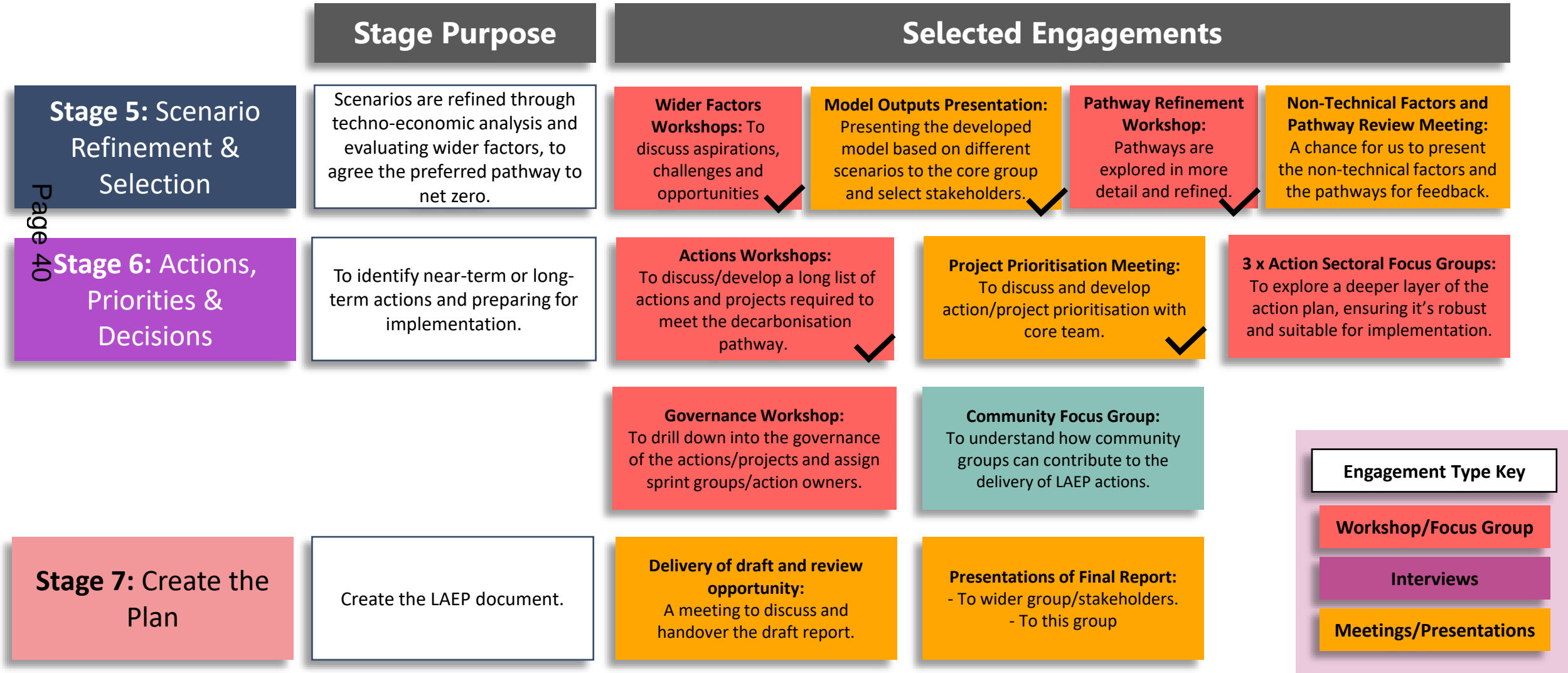
	Stage Purpose	Selected Engagements	
<b>Stage 2: Stakeholder Engagement</b>	Mapping of stakeholders and defining engagement activities.	<b>Stakeholder Planning Workshop:</b> A workshop to conduct stakeholder mapping and develop the Stakeholder Engagement Plan. ✓	
<b>Stage 3: Representing the Local Area</b>	Consolidate relevant data sources to develop a robust baseline model of the local energy system, validating outputs with stakeholders.	<b>10 x 1:1 interviews with priority external stakeholders:</b> To provide baseline information on available datasets and policy gaps. ✓	<b>Stakeholder Baseline Review:</b> A workshop to share the developed baseline with the core project team and key stakeholders. ✓
<b>Stage 4: Modelling Options for the Future</b>	Pull together data models for different scenarios that decarbonise the local areas.	<b>Scenarios Workshop:</b> To explore different potential futures scenarios and agree on the chosen scenarios. ✓	<b>Modelling Approach Meeting:</b> To refine and agree the modelling approach. ✓

**Engagement Type Key**

- Workshop/Focus Group
- Interviews
- Meetings/Presentations

# TROSOLWG O'R RHAGLEN / PROGRAMME OVERVIEW

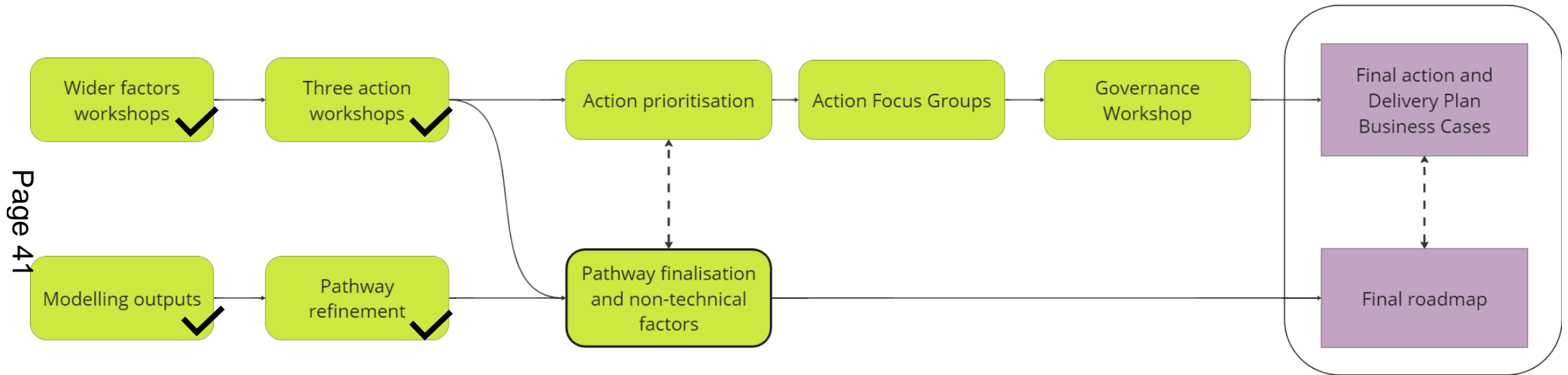
## STAKEHOLDER ENGAGEMENTS





# TROSOLWG O'R RHAGLEN / PROGRAMME OVERVIEW

## HOW ENGAGEMENTS FEED INTO FINAL LAEP



# CYNLLUNIO GWEITHREDU / ACTION PLANNING

## EXAMPLE ACTIONS OUTPUTS

Five-year propositions: Actions up to 2027/2028



**Whole building retrofit**  
Retrofitting properties is crucial to both tackle fuel poverty and reduces strain on the network. This will be prioritised in areas with high levels of poor quality housing and where there is expected to be little electrical network reinforcement.  
**Capex:** £45 million by 2028  
**Capacity:** 6,000 properties retrofitted to EPC C by 2028



**Develop onshore renewables**  
Deployment of onshore renewables will be crucial to reduce fuel poverty and strain on the electrical grid. Rooftop PV will be prioritised on social housing and new builds while ground PV and community onshore wind will be prioritised in identified unconstrained areas.  
**Capex:** £150 million by 2028  
**Capacity:** 30MW ground PV, 100MW rooftop PV



**Decarbonise transport**  
We will prioritise transitioning council-owned vehicle fleet to ULEVs by 2030, with the target to reach 45% transitioned to electric or hydrogen vehicles by 2025.  
**Capex:** £580,000 excluding installation  
**Capacity:** Up to 10 MW EV charging capacity

**Deploy heat pumps**  
Heat pumps will be prioritised in those places where there are low electrical grid upgrades required and where properties are not currently connected to the gas grid.  
**Capex:** £31.5 million by 2028  
**Capacity:** 5,000 heat pump installations

**Electric grid reinforcement**  
The electrical grid will be reinforced in alignment with WPD's projected expenditure 2023-2028. This reinforcement is essential for the grid to be resilient to increased demand loads and to increased variability of supply from renewables uptake.  
**Capex:** Up to £15.4 million by 2028  
**Capacity:** Up to 600 MW by 2028

**Industry decarbonisation and hydrogen**  
Working with industry to pilot hydrogen projects within Pembrokeshire.  
**Capex:** £2 million on local electrolyzers by 2028  
**Capacity:** 12 MW of local electrolyser capacity by 2028

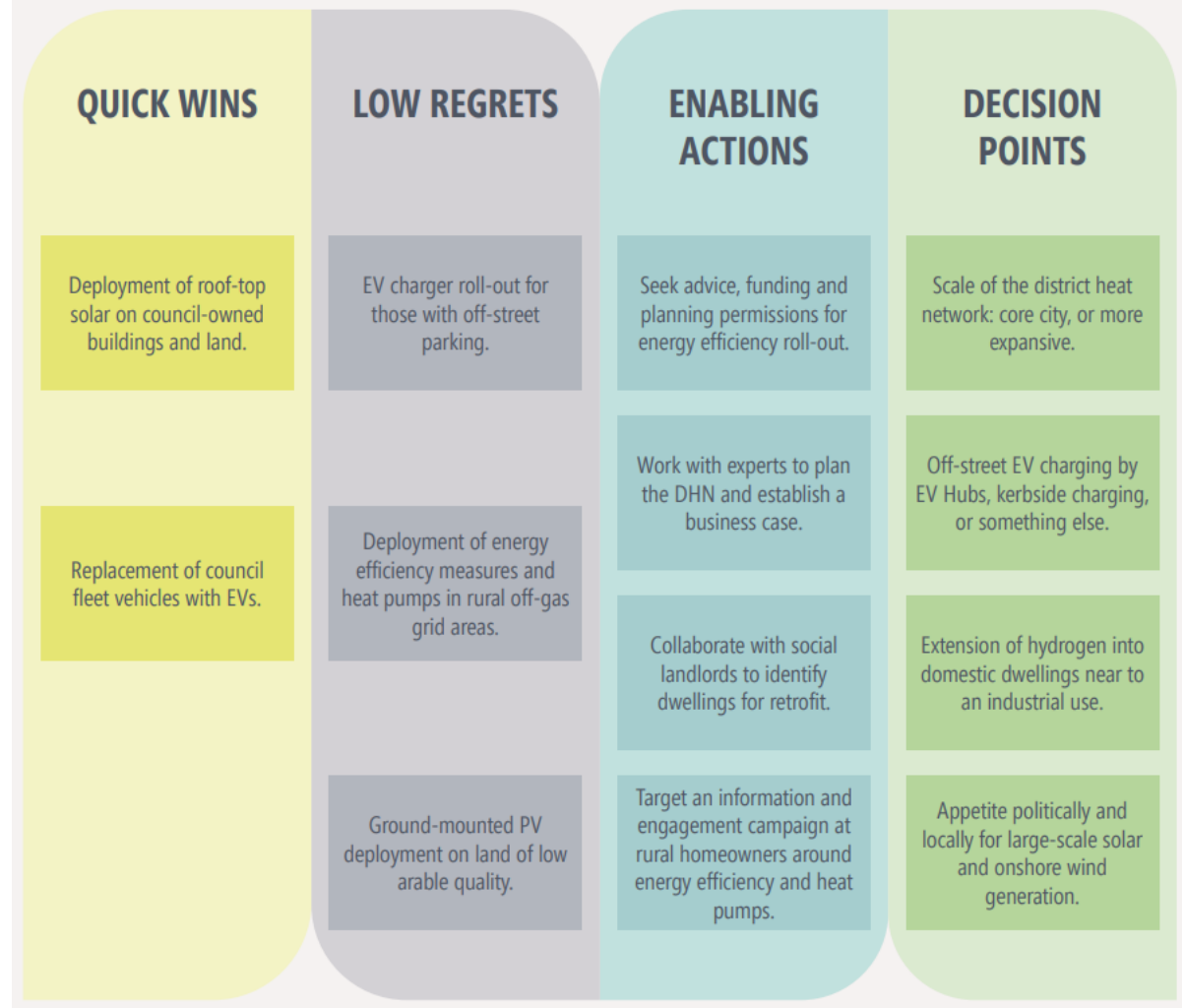


June 2022

Pembrokeshire LAEP



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Peterborough LAEP

# CYNLLUNIO GWEITHREDU / ACTION PLANNING

## EXAMPLE NUMBER OF ACTIONS PER CATEGORY

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Transport  
x 3

Retrofit &  
Heat  
x 4

Industry  
x 2

Generation  
x 3

Enabling  
Factors  
x 3

15 Actions per LA



# CYNLLUNIO GWEITHREDU / ACTION PLANNING

## EXAMPLE ACTION DETAIL

Timescale: Long Term Action		Theme: Demand Reduction
<b>Action 1: Develop a strategic active travel network</b>		
<b>Overview</b>	Identify and develop new greenways across the county to make active travel more accessible and attractive. The team will work with live sprint group to identify collaborative projects that are aligned with LTCP targets.	
<b>Route Map Alignment</b>	By 2030 the Route Map ambition is for a 10% mode shift of personal trips (from private vehicles to sustainable modes).	
<b>Governance</b>	<b>Owner:</b> local authorities <b>Champions:</b> Cycling Network, Lead Members, Councillors & the Universities' active travel champions	
<b>Implementation Steps</b>	<ol style="list-style-type: none"> <li>1. Use data to identify key opportunities/places that require active travel links, including any existing routes with gaps. Consider opportunities along canal routes (e.g. Wiltshire &amp; Berkshire canal)</li> <li>2. Identify any supporting mechanisms required e.g. traffic management.</li> <li>3. Develop and agree key activities, milestones and develop a resource plan to provide clarity on action ownership.</li> <li>4. Identify funding.</li> <li>5. Initial design.</li> <li>6. Stakeholder engagement/consultation/marketing campaign to gain feedback and support e.g. Slow Ways.</li> <li>7. Detailed design.</li> <li>8. Scheme delivery.</li> </ol>	

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<b>Funding Requirements</b>	Explore existing funding pots (e.g. from developers, maintenance schemes). Identify new funding opportunities (e.g. via Active Travel England or the DfT). Additional opportunities include funding from local businesses (e.g. sponsorship or Corporate Social Responsibility budgets), crowdfunding, Sustrans and Workplace Parking Levies (WPLs).
<b>Cost Benefit</b>	<b>Revenue Cost (Year 1):</b> £50,000 <b>Capital Cost:</b> £100m-£125m  <b>Co-benefits:</b> <ul style="list-style-type: none"> <li>• Public health benefits of a shift to active travel.</li> <li>• Improving air quality.</li> <li>• Support more connected communities.</li> </ul>
<b>Risks &amp; Dependencies</b>	Ensuring joined up thinking (e.g. across geographic boundaries – both District, City and County). Ability to access funding and securing political and public support. This action also needs to be supported by complimentary mechanisms for instance cycle training (to address confidence and safety) and safe bike storage options.



# CHAMAU NESAF / NEXT STEPS

## Next Steps

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**SOUTH WEST WALES CORPORATE JOINT  
COMMITTEE – Energy Sub-Committee**

**FORWARD WORK PROGRAMME**

**2023-2024**

Meeting Date 2023	Agenda Item	Type	Contact Officer
<b>6 November 2023</b>	Terms of Reference	Information	Craig Griffiths
	South West Wales Regional Energy Policy and Scene Setting	Information	Steve Keating
	Local Area Energy Plan (LAEP) Progress Update	Information	City Science

Meeting Date 2024	Agenda Item	Type	Contact Officer
<b>13 May 2024</b>	Investment Prospectus, Moving Planning into Delivery	Decision	Rachel Moxey
	Final Steps of Local Area Energy Planning Approvals and Next Steps (National Plan and Regional Alignment)	Information	Kendal Davies/City Science
	Officer Recruitment to support Regional Delivery and Update on Regional Strategy Actions	Information	Kendal Davies
	Net Zero Delivery Plans	Information	Geoff Bacon
	Discussion on Funding Streams	Information	Geoff Bacon