



**REPORT TO THE NORTH WALES ECONOMIC AMBITION BOARD**  
**26 MARCH, 2021**

---

**TITLE:** *Draft North Wales Energy Strategy*  
**AUTHORS:** *Henry Aron (Energy Programme Manager)*  
*Rhys Horan (Welsh Government Energy Service)*

---

**1. PURPOSE OF THE REPORT**

- 1.1. To present the draft North Wales Energy Strategy for endorsement, gain support for proposed next steps and to demonstrate alignment with the regional commitment to the climate challenge.

**2. DECISION SOUGHT**

- 2.1. That the North Wales Economic Ambition Board endorse the draft North Wales Energy Strategy and confirm their support for the commencement of preparatory work on the action plan.
- 2.2. That the North Wales Economic Ambition Board agree to receive a further report on the draft action plan.

**3. REASONS FOR THE DECISION**

- 3.1. The current strategy provides a high-level vision, priority areas, energy modelling and economic analysis which shall inform the development of the proposed action plan.

**4. BACKGROUND AND RELEVANT CONSIDERATIONS**

- 4.1. The Welsh Government Energy Service (WGES), Local Authorities, North Wales Economic Ambition Board (NWEAB), Welsh Government (WG) and partners have collaborated to prepare the current draft of the North Wales Energy Strategy.
- 4.2. Energy strategies have been prepared in all four regions of Wales and already exist in many regions of England.
- 4.3. The NWEAB Low Carbon Energy Programme Board (previously the NWEAB Energy Sub-Group) has been engaged in the development of the strategy from the outset and has reviewed the most recent draft.
- 4.4. The draft energy strategy (hereafter 'the strategy') was shared with the NWEAB Executive Officers Group on the 12 February, 2021 and received broad support. The strategy was also shared with the Regional Chief Executives Forum on the 26 February, 2021 and is now presented to the NWEAB for endorsement.

- 4.5. The overall aim of this strategy is to illustrate a potential pathway for decarbonising the energy system whilst ensuring that the region maximises the economic benefits from the transition to a low carbon economy.
- 4.6. This transition provides significant economic recovery and growth opportunities (see **appendix 1**). Even before COVID-19, the UK Government expected the low carbon economy to grow four times faster than the rest of the economy. Following publication of the recent UK Government Energy White Paper and Ten Point Plan for a Green Industrial Revolution, the potential opportunities for the economy are now even greater.
- 4.7. The strategy (see **appendix 2**) demonstrates a strong strategic case for a future smart energy system in North Wales and shows strong alignment with the developing Growth Deal Smart Local Energy Project and broader Low Carbon Energy Programme, which will be key early vehicle for delivering on the strategy. The strategy also aligns with priorities for investment within the emerging Regional Economic Framework.
- 4.8. Accessing the investment required to deliver on the proposed vision will be a significant challenge and the proposed next step of developing an action plan will begin the process of identifying the regional interventions and asks required to deliver the vision.
- 4.9. Other regions have utilised their strategy to make the case for further investment within their regions (e.g. Cardiff Capital Region have endorsed their Energy Strategy and have used the strategy as the basis for a 'levelling up' prospectus to UK Government).
- 4.10. Whilst the economic drivers for engaging in the energy system are clear, there are also significant climate change drivers for delivering this future energy system. It is estimated that the energy system in North Wales (through both sectoral energy generation and consumption) is responsible for circa 70% of all greenhouse gas emissions. Therefore, delivering the energy vision, will make a significant contribution to tackling climate change.
- 4.11. The strategy will complement and support work already underway across each local authority and public sector body to decarbonise their organisational (internal) emissions. The strategy will help support accessing funding sources to achieve these ambitions.
- 4.12. The strategy is underpinned by five core principles which strongly align with the objectives for the NWEAB low carbon programme:
- becoming a leader on low carbon energy generation
  - collaboration
  - taking a whole system multi vector view
  - embracing a net zero carbon economy
  - future proofing and innovation
- 4.13. The strategy is structured in five chapters, Vision; Priorities; Energy system, energy use and emissions; The future of energy and the economy; Next Steps.

## **VISION**

- 4.14 Chapter 1 provides the vision which been prepared following various stakeholder contributions over the past year. The vision states:

‘Delivering maximum local economic, social, ecological and wellbeing benefits from transitioning to a net zero economy and becoming a net exporter of low carbon electricity through cross-border and regional cooperation’.

## **PRIORITIES**

4.15 Chapter 2 describes four priorities which have been generated from workshops, stakeholder engagement and a review of key policy documents. The priorities identified were:

- To harness the abundance of local low carbon resource to become a green powerhouse and diversify the energy mix
- To become a world-leader in offshore wind and marine technologies
- To improve the energy efficiency of the region’s housing and accelerate the decarbonisation of North Wales’ building stock
- To achieve a shift to lower carbon transport

## **ENERGY SYSTEM, ENERGY USE AND EMISSIONS**

4.16. Chapter 3 provides useful background data and information on the current energy system.

4.17. North Wales already generates the equivalent of 82% of its electricity consumption from local renewable energy sources.

4.18. To achieve the energy vision and targets for net zero by 2050, North Wales emissions across road transport, commercial and industrial emissions and domestic heat and power will need to reduce by 55% by 2035 (versus a business as usual reduction of 22%).

4.19. This chapter highlights the significant challenge facing the region to achieve such a reduction and illustrates one possible Energy System Vision scenario e.g. 67,000 homes to move from fossil fuel heating, 260,000 electric cars, 2.8GW of offshore wind, 310MW of onshore wind, 1 GW tidal lagoon etc. (NB there are multiple scenarios which could achieve the vision).

4.20. There are multiple scenarios which will emerge as technologies develop and with greater clarity on policy and funding arrangements.

## **ECONOMIC IMPACT**

4.21. Chapter 4 details the economic impacts of achieving the energy system vision. These have been assessed in terms of job creation, gross value added (GVA) and the investment (or spending) required for the energy transition, in comparison to a business as usual scenario.

4.22. The economic analysis demonstrates that approximately £15 billion of investment is needed to achieve the energy system vision between now and 2035. This investment is expected to come from multiple sources including both the private and public sectors.

4.23. In terms of jobs, the energy system vision scenario is estimated to require an additional 24,400 net jobs to deliver the accelerated deployment of renewable electricity generation technologies and the enhanced levels of energy efficiency. These additional jobs are associated with around £2.4 billion more GVA (discounted at 3.5% over the period 2020-2035).

## **PROPOSED NEXT STEPS**

4.24. Chapter 5 of the strategy proposes the following next steps:

- Development of Action plan – with support from WGES, the action plan will translate the challenge into deliverable interventions, led by a cross sector steering or task and finish group. The process will enable the region to identify those areas where there is genuine scope for collective interventions and those areas that will require others to lead (e.g. UK Government, Welsh Government, Ofgem, SPEN, Transport for Wales etc.). There will be areas where the region may only wish to influence and/or monitor.
- Governance – NWEAB, WG and WGES to agree proportionate governance for the strategy to ensure that effective reporting, future monitoring arrangements, and coordination capacity is in place. In most English regions, the Local Enterprise Partnership (LEP), have led on the development of the regional energy strategies due to the strong economic growth opportunities and cross-sector nature of most of the likely interventions.
- Wider communication of strategy – with support from WGES, build support for the strategy amongst broader stakeholders.

4.25. WG has confirmed WGES will be available to support the proposed next steps and provide coordination capacity. Early work in other regions has estimated that approximately 25 days of WGES officer resource together with approximately 13 days of regional/NWEAB resource will be required to develop the initial draft of the action plan over a period to be agreed. This will need to be supplemented by the involvement and contributions from a wide range of important stakeholders such as the private sector, SP Energy Networks, Wales and West Utilities, Registered Social Landlords, Transport for Wales etc.

## **SUMMARY**

4.26. The NWEAB Low Carbon Energy Programme Board has been instrumental in the development of the strategy, providing robust and constructive challenge.

4.27. The NWEAB Executive Officer Group and Regional Chief Executives Forum have provided their support for the proposed next steps.

4.28. The strategy has strong alignment with climate change, economic growth, and COVID-19 economic recovery ambitions. Whilst the scale of the challenge is significant, the economic opportunities presented to the region are huge.

4.29. The strategy will help inform and support local public sector decarbonisation plans (e.g. by helping understand and unlock grid infrastructure, attract innovation solutions and funding etc).

4.30. The action plan will enable the region to better understand and identify a range of regional interventions required to deliver the vision. WGES resource will be available to develop the action plan.

4.31. The strategy and action plan will help to inform and support future funding bids across priority areas into UK Government, Welsh Government, UK Research and Innovation (UKRI) and others (e.g. distribution network operators). The strategy has already been extremely important in providing regional level intelligence to inform the Growth Deal Low Carbon Energy Programme Business Case.

## **5. FINANCIAL IMPLICATIONS**

5.1. No financial risks to note.

## **6. LEGAL IMPLICATIONS**

6.1. No Legal Implications to note.

## **7. STAFFING IMPLICATIONS**

7.1. Welsh Government has confirmed that the Welsh Government Energy Service (WGES) will be available to support the proposed next steps and provide coordination capacity. Early work in other regions has estimated that approximately 25 days of WGES officer resource together with approximately 13 days of NWEAB resource is likely to be required to develop the initial draft of the action plan over a period to be agreed. NWEAB staff input to the action plan is not expected to impact upon delivery of the Growth Deal Programme.

## **8. IMPACT ON EQUALITIES**

8.1. No impact on equalities to note.

## **9. CONSULTATIONS UNDERTAKEN**

9.1. The Low Carbon Energy Programme Board, the Executive Board and the Regional Chief Executives Forum have endorsed the strategy ahead of submission to the NWEAB. A wide variety of stakeholder groups and organisations were engaged in the development of the strategy.

---

### **APPENDICES:**

<b>Appendix 1</b>	Infographic on North Wales Energy Strategy
<b>Appendix 2</b>	Regional Energy Strategy

---

### **STATUTORY OFFICERS RESPONSE:**

**i. Monitoring Officer – Host Authority:**

“This Strategy is a document which supports the Growth Vision and Agreement and facilitates their implementation. It is a document which the Economic Ambition Board can approve.”

**ii. Statutory Finance Officer (the Host Authority’s Section 151 Officer):**

“I welcome the draft North Wales Energy Strategy presented here. There is no request for new funding or any additional commitment. Hence, NWEAB are expected to implement the Strategy within their current resources.”