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Metro Dynamics

Future Delivery of the North West Net Zero Cluster Plan

Stage 2 Report

January 2024

Executive Summary

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This Stage 2 report for the North West Net Zero Cluster builds on the initial findings of our Stage 1 research and extensive consultation, focusing on advancing the region's industrial decarbonisation. It explores strategic leadership, governance, stakeholder engagement, and innovative business models, crucial for achieving Net Zero targets.

Key Findings

- The report identifies the need for robust strategic leadership and governance to guide the cluster's efforts, ensuring they align with regional and national decarbonisation goals.
- Effective collaboration and stakeholder engagement are highlighted as essential for the cluster's progress, with a focus on inclusive partnerships across public and private sectors.
- The evaluation of business models recommends a public-private partnership model, using a Limited by Guarantee (LBG) structure for the enhanced cluster agency, offering flexibility, inclusivity, and scalability.

Strategic Recommendations

- Adopt the LBG structure augmented by an inclusive industry-led membership approach, leveraging Net Zero North West's existing framework for a smooth transition.
- Prioritise strategic leadership development, governance restructuring, and stakeholder collaboration to reinforce the cluster's operational foundation.

Next Steps

- Develop a comprehensive business plan outlining strategic objectives, operational tactics, and performance indicators.
- Formulate a detailed funding strategy incorporating membership fees, government grants, private investments, and public-private partnerships.
- Focus on staffing and leadership recruitment, ensuring a dynamic team capable of executing the cluster's vision.
- Establish operational infrastructure, communication, and marketing strategies to effectively manage and promote the cluster's activities.
- Implement workforce development programs and create a governance framework that ensures transparency, efficiency, and stakeholder representation.
- Regularly review and monitor the cluster's performance, adapting strategies to emerging technologies, market dynamics, and policy changes.

Challenges and Risks

- Navigating complex stakeholder landscapes and balancing diverse interests.
- Securing sustainable funding and managing operational complexities in a dynamic industrial landscape.

Conclusion

The Stage 2 report lays a solid foundation for the evolution of the North West Net Zero Cluster, positioning it as a potential leader in industrial decarbonisation.

Call to Action

Stakeholders and decision-makers are urged to support the implementation of the recommended strategies, ensuring the North West Net Zero Cluster's effective transition into a new cluster agency model. This enhanced structure has the potential to deliver both regional and strategic leadership and driving continued evolution and and further development of the cluster plan and ultimately helping the region delivery its net zero goals.

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Introduction

In August 2023, Cheshire and Warrington LEP commissioned work to explore the delivery requirements of the North West Industrial Cluster Decarbonisation Plan.

In the initial phase of our analysis for the North West Industrial Cluster, we achieved a significant alignment among stakeholders concerning the necessity of strategic interventions.

The Stage 1 report delineated a clear trajectory for the North West and North Wales Industrial Cluster Plan, underscoring the urgency of collaborative action to decarbonise the industrial sector and bolster economic growth in the region.

As we transition into Stage 2, our focus sharpens on the creation and development of a dedicated agency or body. This entity will be instrumental in orchestrating the delivery of the interventions identified as pivotal in Stage 1. These interventions form the backbone of our strategy to drive the cluster towards a sustainable and economically vibrant future.

The core objectives for Stage 2 include:

- Establishing a robust framework for **Cluster Management**, ensuring that the Cluster Plan is delivered efficiently and effectively, with a strong emphasis on oversight and the achievement of set milestones.
- Refining our approach to **Project and Programme Management**, developing methodologies that are not only agile and responsive to the needs of the cluster but also aligned with the overarching vision of industrial decarbonisation.
- Addressing the critical area of **Skills & Workforce Development**, acknowledging that the upskilling of the workforce is paramount to the successful implementation of the Cluster Plan.
- Strategizing **Policy Engagement and Lobbying** efforts to facilitate a conducive environment for the cluster's growth, through concerted dialogue with government bodies.
- Enhancing capabilities for **Inward Investment**, creating a compelling value proposition to attract investment that will fuel innovation and infrastructure development.
- Facilitating **Planning and Grid Integration**, recognising that a future-proof infrastructure is crucial for the cluster's operational excellence and expansion.
- Promoting **Regional and National Coordination**, to ensure that the cluster's initiatives are well-integrated with broader economic and environmental strategies.

In this next phase, we will build upon the groundwork laid in Stage 1, evaluating various operational models and governance structures that will serve as the cornerstone for the new agency. We will also consider diverse funding mechanisms, resource allocation, and stakeholder engagement strategies to ensure that the cluster is well-positioned to meet its goals.

The forthcoming section will encapsulate our findings from Stage 1 and set the stage for the critical work ahead, as we endeavour to position the NW Industrial Cluster as a leader in industrial decarbonisation and a catalyst for economic revitalisation in the region.

Summary of Stage 1

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The Stage 1 Report for the North West Industrial Cluster outlines several key requirements, risks, and opportunities for successfully delivering the Net Zero cluster plan. The plan is complex, addressing various issues and enablers at different levels and scales. Key aspects of the Stage 1 report are summarised below:

Requirements for Successful Delivery:

- **Timely Delivery of Core Infrastructure**: The decarbonisation of some of the larger emitters is, in part, contingent on the timely delivery of the entire HyNet ecosystem, including hydrogen and CO2 pipelines. These are complex, interlinked projects where potential delays must be mitigated to ensure progress.
- **Policy Incentives and Certainty**: Essential policies, such as hydrogen price subsidies, are needed to secure demand and provide a stable investment environment.
- **Project Brokering and Facilitation**: Projects face numerous potential barriers like planning permission, environmental permits, public consultation, and utility connections. These challenges might slow down progress and require varied approaches to resolution.
- **Progress Visibility and Assurance**: The plan involves a dynamic range of projects, some of which may not be clearly visible or prioritised, risking the non-delivery of key projects and the overall objectives of the plan. Improving visibility is seen as a key requirement for successful delivery for the whole cluster plan.
- **Regional Support and Alignment**: Ensuring support from public sector stakeholders across the entire North West region is crucial for investor confidence and the promotion of investment in new industrial growth opportunities linked to decarbonisation.
- **National Coordination and Collaboration**: Cooperation among existing and emerging decarbonisation clusters is vital to prevent competition for policy focus and investment that could hinder the overall UK industry decarbonisation goal.
- **Addressing Medium-Term Enablers**: There's a recognised future skills and workforce supply gap as the UK transitions to a green economy, necessitating regional-level brokering of skills requirements.

The Case for Intervention:

- **High-Level Engagement**: Ongoing engagement with industry, government, and other clusters is necessary to unblock delays and influence policy, emphasising the need for a coordinated approach to manage the requirements for delivering the cluster plan.
- **Facilitating Stakeholder Convergence**: Bringing stakeholders together around the overall ambition of the plan can help overcome barriers, with high necessity for dynamic and varied plan management.

Benefits and Opportunities of Intervention:

- **Knowledge Sharing and Problem-Solving**: Intervention could enable the sharing of best practices and experiences among stakeholders, increasing efficiency and reducing duplication of efforts.
- **Strengthening Partnerships**: Convening stakeholders across different sectors could lead to stronger partnerships and better local capacity for future delivery.
- **Enhancing Communication and Influence with Government**: Regular communication with government departments could lead to better policy development and action, positioning the North West as a key region for future phases of support and investment in industrial decarbonisation.
- **Securing Regional Benefits**: Early intervention, particularly in skills development and infrastructure facilitation, aligns with the broader objectives and ambitions of the North West, ensuring the creation of a local skills pipeline for high-value jobs.

Conclusion and Recommendations:

The research and engagement in Stage 1 of the project reveal a consensus among stakeholders on the need for intervention to support the delivery of the North West Industrial Decarbonisation Cluster Plan. This intervention is crucial to maintain momentum, address delivery risks, and maximise the plan's benefits for the region.

Summarising the Case for Intervention

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The Industrial Cluster is at a crossroads, facing challenges that impact both the environment and the economy. Focussing on the continued delivery of the Cluster Plan, the case for intervention is clear.

The research and stakeholder engagement conducted during phase 1 has underscored unanimous agreement on the need for intervention to support the delivery of the Cluster Plan. The consensus recognises that while several projects might materialise without intervention, the lack of a strategic push could result in extended timelines, suboptimal sequencing, and missed opportunities for achieving decarbonisation and economic growth.

This section outlines the rationale for strategic intervention, focusing on sustainable development and economic growth.

Political Context

The political landscape, particularly regarding local government and changes in Local Enterprise Partnerships (LEPs), is critical for the Industrial Cluster. Changes in local governance structures inevitably influence local and regional industrial strategy and funding. Adapting to these shifts is vital for aligning Cluster initiatives with regional and national economic plans, ensuring effective collaboration and securing necessary support.

Environmental Context

Environmental sustainability is a key driver for intervention. The Cluster's transition towards a low-carbon economy is not only environmentally crucial but also vital for economic resilience. Adapting to new environmental standards is essential for future competitiveness and growth.

Economic Challenges and Opportunities

The economic landscape is rapidly evolving. Traditional industries are increasingly being challenged by new market dynamics and consumer preferences. The intervention must focus on leveraging these changes to create new opportunities. By diversifying its economic base and investing in emerging sectors, the Cluster can stimulate job creation, drive innovation, and enhance its competitiveness on a global scale.

Regulatory Landscape

With stringent regulations on carbon emissions and sustainability practices, industries within the Cluster must adapt to remain compliant and competitive. This includes investing in cleaner technologies, rethinking energy sources, and revising operational strategies to align with new environmental standards.

Technological Advancements and Adaptation

The pace of technological change presents both challenges and opportunities. The Cluster must strategically invest in new technologies to improve efficiency, reduce carbon intensity, and foster innovation. Equally important is the need to upskill the workforce to manage and operate these new technologies, ensuring a smooth transition and maintaining operational excellence.

Workforce Development and Social Equity

A key aspect of the intervention is the drive for workforce development. As industries evolve, so too must the skills and capabilities of the workforce. Investment in training and development programs is critical to ensure that workers are equipped for the jobs of tomorrow. Additionally, the transition must be socially equitable, offering support to those most impacted by industrial changes.

Governance and Collaborative Approach

Effective intervention requires robust governance and a collaborative approach. This involves engaging with a broad range of stakeholders, including industry leaders, government bodies, local communities, and environmental groups, to ensure a coordinated and inclusive strategy.

Design principles for the future solution

In developing the case for intervention, a number of principles have arisen through discussions with industry and public stakeholders, that together set some parameters for the design of the future solution for supporting the delivery of the cluster plan. These are shown below and have been carried through to the rest of this report.

Clear role and responsibilities. The future solution for intervention must have a clear and understood role and responsibilities that add value to the current environment and does not unnecessarily duplicate existing activity. For successful plan delivery, the industry needs to know the division of responsibility and resources across the regional system, and which organisation(s) to interact with to initiate, deliver and troubleshoot projects.

Single point of ownership. It would be most efficient and effective for project owners, industry partners and public sector organisations to engage with a single body that has majority ownership and accountability for the delivery of the cluster plan. Although this does not undermine the collective, regional nature of the overall programme across the private and public sectors, there is a need for singular and clear leadership from a singular organisation.

Build on existing organisations and entities. It was recognised that there is a large number of different organisations operating in this space regionally and nationally. The future solution for intervention should therefore build on existing resources and entities, modifying these where required, as opposed to setting up anything brand new. This will ensure that existing relationships, knowledge and credibility are maximised and will avoid a lengthy mobilisation process.

Industry-led and publicly backed. As an industry-led plan, the body that leads and facilitates its delivery must also be industry-led. This means having strong relationships with the right industry partners, a deep understanding of private sector needs and barriers to delivery and the backing of industry to broker these. The body must also be public-sector backed so that the enablers, such as skills and planning, can be put in place and inclusive growth opportunities unlocked.

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Future Cluster Functions

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Responding to the functions

It is evident that further intervention is necessary to support the successful execution of the North West Net Zero Cluster Plan. The functions outlined in the previous phase of this project define the scope of activities requiring intervention.

However, the specific nature of the intervention and the response for each function may vary depending on urgency and existing responsibilities within the region.

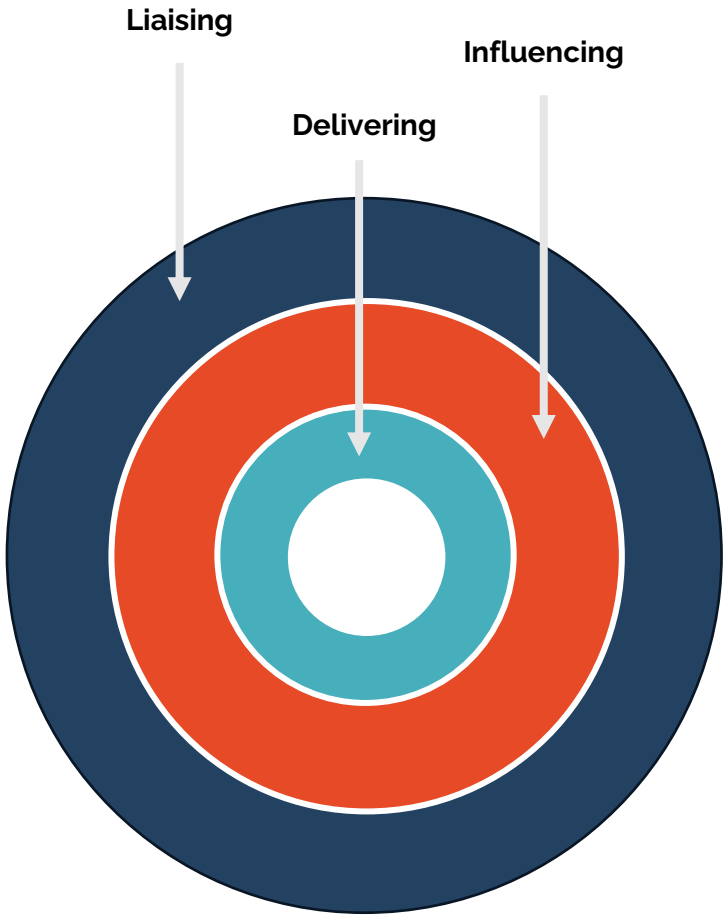
This section details the functions needing intervention and categorises them into three main types, as illustrated in the diagram below and described in more detail:

Delivering: Functions in this category will be directly managed by the cluster body, with a clear and well-defined mandate. This means that the cluster body itself will take the lead in carrying out these functions. For example, cluster management falls into this category. The cluster body will be responsible for supporting and coordinating the delivery of activities related to the cluster plan, ensuring its smooth progress, and addressing any challenges that arise during implementation.

Influencing: In this category, the cluster body will play an influential role by using information and insights to highlight issues and opportunities, with the aim of influencing the activities of other organisations that impact the plan. This entails providing data, research, and recommendations to guide decision-making and policy development. For instance, in the context of planning, the cluster body will not directly manage planning activities but will influence and shape planning decisions through data-driven advocacy.

Liaising: Functions in this category require a lighter-touch intervention, with the cluster body facilitating collaboration with other organisations responsible for delivering essential functions. Rather than taking direct control, the cluster body acts as a facilitator, bringing together relevant stakeholders and ensuring effective coordination. An example of this is skills and workforce planning, where the cluster body collaborates with local authorities, educational institutions, and industry partners to address the workforce needs of the cluster plan.

This approach ensures a systematic and efficient approach to addressing the diverse needs of the cluster plan. By categorising functions based on their level of direct involvement, the cluster body can allocate resources and efforts strategically, maximising its impact while collaborating effectively with existing entities in the region.



Function Categories for Intervention

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Delivering Functions

Cluster Management:

- The cluster body assumes responsibility for the coordination of cluster activities and driving delivery of the Cluster Plan; liaison across projects, ensuring smooth progress and addressing challenges during implementation.

Project and Programme Management:

- A practical approach to support the delivery of complex decarbonisation projects, ensuring accurate and timely information sharing, while encouraging collaboration between projects, addressing common areas that benefit all.

Inward Investment:

- Actively attracting financial resources into the region, showcasing its potential for innovation and sustainable growth to both domestic and international investors.

Influencing Functions

Policy / Lobbying Government:

- The cluster plays an influential role in shaping supportive policies, securing legislative backing, and influencing the regulatory environment to align with its strategic goals.

Planning:

- Advocating for grid and utility network modernisation, integration of renewable energy sources, and anticipation of future energy needs through smart grid technologies.

Regional/National Coordination:

- Coordination to align cluster activities with national climate goals and advocate for regional needs, facilitated by the National Industrial Decarbonisation Advocate. Collaboration with other clusters and coordination with regional clusters in related sectors.

Liaising Functions

Skills & Workforce Development:

- Collaboration with key stakeholders responsible for skills development in the region, advocating for skills aligned with decarbonisation projects, and ensuring inclusivity and diversity in the workforce.

Communication and Community Engagement:

- Ensuring open, transparent, and inclusive communication with local communities and businesses, actively addressing concerns, and involving local communities in the decision-making process to build trust and cooperation.

Cluster functions 1

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Cluster Management

- Ensuring a core focus on delivery of the existing agreed cluster plan, supporting and measuring progress, and periodic updates to the plan as required.
- Effective cluster management lies at the heart of the North West Industrial Cluster, providing strategic direction and operational coordination to a diverse array of stakeholders and initiatives.
- This role demands the creation of a centralised governance model that defines clear roles and responsibilities while fostering a culture of transparency and accountability.
- The management entity should be tasked with harmonising efforts towards shared sustainability and economic goals, ensuring that the cluster operates as a unified entity with a clear vision and purpose.
- A robust management, governance, and communications structure will support innovation, help to support the deployment of projects, identify areas for potential collaboration, and facilitate the efficient use of resources.
- A strategic focus on carbon reduction, energy efficiency, and sustainable growth is the cornerstone of this management function, aligning the cluster with national and global environmental goals and, at the same time, local and regional economic growth priorities

Project and Programme Management

- Project and programme management within the cluster ensures a disciplined, systematic approach to driving complex initiatives from conception to completion.
- Project and programme management for the cluster will demand a meticulous and targeted approach, emphasising the delivery of multifaceted decarbonisation projects and initiatives across multiple sectors with multiple partners and stakeholders.
- A comprehensive framework will be needed to support strategic resource planning, understand major deployment risks, create detailed project scheduling, understand key interdependences, and appropriate performance tracking.
- The focus will be supporting and enabling project and programme delivery that align with the cluster's decarbonisation targets, fostering cross-project synergies, and achieving economies of scale. The cluster management will need to work closely with technical experts to integrate innovative solutions across projects, ensuring that the cluster's goals are met with the utmost efficiency.
- The success of this function hinges on its ability to maintain agility and precision in project delivery, ensuring that each initiative contributes effectively to the cluster's decarbonisation pathway.

Policy / Lobbying Government

- The cluster's policy and lobbying function will serve as the nexus between industry ambitions and governmental policy frameworks, playing a critical role in shaping a policy and regulatory environment conducive to the cluster's objectives.
- This function will engage in proactive dialogue with policymakers to advocate for supportive policies, secure legislative backing, where appropriate, for decarbonisation efforts, and influence the regulatory landscape to align with the cluster's strategic goals.
- It will involve crafting nuanced advocacy strategies, leveraging the cluster's collective expertise to provide informed insights into policy debates, and ensuring that the cluster's needs are reflected in policy outcomes.
- The ultimate goal is to foster a policy ecosystem that stimulates innovation, supports decarbonisation and economic growth, and accelerates the cluster's transition towards a sustainable and prosperous future.

Cluster functions 2

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Inward Investment

- Inward Investment must be a cornerstone of the industrial decarbonisation strategy. Continuing to attract inward investment in both existing and future demonstration and industrial-scale projects is critical to fuel the region's transition to a greener economy.
- This function focuses on drawing financial resources into the cluster, which is crucial for developing low-carbon technologies and infrastructure.
- It involves showcasing the cluster's potential for innovation and sustainable growth to investors, demonstrating a strong case for renewable and clean energy production, waste reduction, and carbon capture initiatives.
- An inward investment strategy must communicate the long-term economic benefits and the potential for pioneering environmental and social impact, ensuring the cluster remains an attractive prospect for both domestic and international investors.
- In doing so, it will secure the capital necessary to drive forward the cluster's decarbonisation projects, creating a thriving hub for sustainable industrial activity.
- An effective inward investment approach must also underscore the region's competitive edge, persuading businesses to continue investing locally rather than relocating operations abroad, thereby ensuring the region remains a globally competitive landscape for industrial activity.

Planning

- Working with projects and developers to address planning barriers will need strategic orchestration, with a special emphasis on grid and utility network modernisation – covering electricity, gas, and water - to support changing, new, and increasing energy demands.
- This function will need to address the integration of renewable energy sources into the industrial grid, advocating for investment in grid capacity and resilience to foster a secure, sustainable energy supply.
- Planning efforts must anticipate the future landscape of energy consumption and production, incorporating the rise of decentralised energy resources and the need for smart grid technologies.
- This foresight will be instrumental in enabling the cluster to manage its energy transition effectively, reducing carbon emissions while maintaining industrial competitiveness and energy security.
- Working across Local Authorities, with both Transmission and Distribution Network Operators, to plan for future regional energy networks. This could include engaging in new regional energy systems planning functions, helping to match current needs with increasing future demand.

Regional/National Coordination

- Coordination at regional and national levels will be a lynchpin for the North West Industrial Cluster, ensuring that regional projects and initiatives are harmonised with wider decarbonisation plans and projects where appropriate. In line with the recommendations from the UKRI's 'Enabling Net Zero Report,' the establishment of a National Industrial Decarbonisation Advocate will play a crucial role in facilitating this coordination.
- This coordination is necessary to align the cluster's activities with national climate goals and to advocate for regional needs within national policy discussions. The National Industrial Decarbonisation Advocate will serve as a key liaison between the North West Industrial Cluster and national decision-makers, ensuring that the cluster's priorities and challenges are effectively communicated at the national level.
- It's imperative to foster collaboration not only within the North West Industrial Cluster but also with other major Industrial Decarbonisation Clusters in the UK, including emerging clusters such as Bacton to Thames and Peak Cluster.
- Coordination with other North West regional clusters in offshore wind, hydrogen, and nuclear will be essential to strengthen connectivity and foster a collective voice to government on common issues. There will be some common businesses or projects engaging across one or more technology-based clusters, each having their own scopes and priorities. Collaboration will require further dialogue with each respective cluster body/forum.

Cluster functions 3

- Through effective coordination, facilitated by the National Industrial Decarbonisation Advocate and collaboration with other clusters, the North West Cluster can amplify its impact, influence policy, and drive collective progress towards a carbon-neutral industrial sector, while maintaining strong connections with regional and national stakeholders.

Skills & Workforce Development

- While the North West Industrial Cluster recognises the vital importance of skills development for the potential success of decarbonisation efforts, it has not assumed the lead role in this domain. Instead, the cluster should collaborate closely with key stakeholders responsible for skills development in the region.
- The cluster's approach to skills and workforce development should be based on articulating the specific needs of the cluster and projects. By engaging with local authorities, chambers of commerce leading on Local Skills Improvement Plans (LSIPs), educational institutions, and other relevant bodies, the cluster should aim to ensure that skills initiatives align with the requirements of its evolving workforce.
- This collaborative approach involves advocating for the skills necessary for the cluster's decarbonisation projects, such as expertise in renewable energy technologies, carbon capture and storage, and sustainable manufacturing processes.
- By communicating these needs effectively, the cluster can contribute to the development of tailored training programs that benefit both the industry and the region's workforce.
- The Cluster and its industry members will be expected to actively engage with local communities and workforce representatives to promote inclusivity and diversity in the workforce. It should seek to create opportunities for local employment and ensure that the benefits of decarbonisation are accessible to the region's residents.

Communication and Community Engagement

- Effective communication will be pivotal to the success of the North West Industrial Decarbonisation Cluster. While the cluster primarily focuses on significant industrial decarbonisation projects, it operates within a broader ecosystem that includes local communities and businesses. Open, transparent, and inclusive communication is essential to navigate potential challenges and ensure the cluster's activities align with the interests and concerns of all stakeholders.
- Furthermore, sharing of achievements, best practices and case studies through delivery of the cluster plan projects, may offer valuable insights and lessons learned to smaller industrial and manufacturing decarbonisation projects. Whilst supporting smaller local industrial decarbonisation activities is out of scope for this intervention body, collaboration on wider PR and lobbying activities communicating business requirements to deliver on these and promoting the North West offer in supporting the national decarbonisation agenda should be part of its role.
- Local communities play a vital role in the cluster's operations, as they are often directly impacted by the development of new infrastructure and facilities. To foster a positive relationship with these communities, the cluster should consider a community engagement strategy. This strategy will involve regular dialogue, information sharing, and consultations with local residents.
- The goal is to address any concerns, dispel misinformation, and provide a clear understanding of the benefits that the cluster brings to the region. By actively involving local communities in the decision-making process and addressing their queries and apprehensions, the cluster aims to build trust and cooperation.

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Development of Intervention Options

This chapter explores the suitable business models for the future intervention, exploring the existing organisations already working in the region in this area who could be brough in as part of the solution. It also explores the recommendations from the UKRI Enabling Net Zero Report.

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Review of wider industrial clusters

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Direct engagement, coupled with insights from UKRIs 'Enabling Net Zero' report, provides a helpful analysis of the collaboration and management approaches of various industrial clusters.

Each cluster has a unique strategy for decarbonisation, emphasising collaboration and partnership development.

1. **Humber Industrial Cluster**: With 24 collaborators, the Humber Industrial Cluster established a core team to lead the plan's development, supported by industrial partners and strategic observers. The Humber Energy Board is responsible for leading the strategic and governance aspects in the next phase, with the delivery body options still under consideration.

2. **Black Country Industrial Cluster**: This cluster conducted 17 separate studies across parties and developed a plan through collaborative efforts. They have established the Centre for Manufacturing Transition, initially funded for three months, to build on the outcomes of the Repowering the Black Country Project.

3. **Scottish Net Zero Roadmap**: With 19 collaborators, this cluster identified NECCUS as the lead, with other parties contributing funding, time, and resources. Discussions with the Scottish Government are ongoing regarding enduring plan leadership and ownership.

4. **South Wales Industrial Cluster**: This cluster, with 29 collaborators, set up Community of Interest Networks and a Virtual Zero Carbon Hub to facilitate knowledge sharing. They have created the Net Zero Industry Wales (NZIW) entity to support existing and emerging industrial clusters in Wales.

5. **Tees Valley Industrial Cluster**: The largest in terms of collaborators (46), this cluster established a new industry group, the Net Zero Leadership Group, specifically aimed at ensuring Net Zero is achieved in the cluster.

The diversity in these approaches reflects each cluster's unique context, resources, and objectives. The varying number of collaborators in each cluster also indicates the scale and scope of their respective decarbonisation efforts.

The NW Industrial Cluster can draw valuable insights from the strategies of other UK clusters. For instance, the Humber Industrial Cluster's strong leadership via the Humber Energy Board showcases the importance of strategic direction from industry, which the North West could build on.

The Black Country Industrial Cluster's extensive collaborative studies reflect a deep dive into multi-party collaboration, a model the North West could consider for diverse stakeholder engagement.

The Scottish Net Zero Roadmap's reliance on NECCUS as a lead and sustained government discussions might inform the North West's approach to leadership and policy engagement, but not necessarily to emulate.

South Wales Industrial Cluster's innovative Virtual Zero Carbon Hub and the Community of Interest Networks provide a framework for effective knowledge sharing that NW could consider adapting for the region.

Lastly, Tees Valley's establishment of the Net Zero Leadership Group, given its larger number of collaborators, demonstrates the value of dedicated groups for targeted goals, a tactic that could benefit the North West in managing its objectives efficiently.

Other NW Energy Clusters

The Offshore Energy Alliance, North West Hydrogen Alliance, and North West Nuclear Arc are three major energy clusters in the region that directly contribute to delivering lower carbon and renewable energy, contributing to the UK's energy security, net zero ambitions, and, by extension, the industrial decarbonisation of the North West.

1. **Offshore Energy Alliance:** The Offshore Energy Alliance focuses on the exploration and development of offshore energy resources. This includes the harnessing of wind, wave, and tidal energy, which are abundant in the UK due to its geographical location.

   The alliance is supporting several major projects that aim to utilise these renewable energy sources. They are also investing in the development of advanced technologies that can improve the efficiency and feasibility of offshore energy production.

   The Alliance is committed to the responsible development of these resources, implementing stringent environmental protection measures to ensure that the ecosystem is not adversely affected.

   Their work is crucial to the UK's goal of attaining energy sustainability and reducing carbon emissions, as offshore energy has the potential to significantly contribute to the country's renewable energy production.

2. **North West Hydrogen Alliance**: The North West Hydrogen Alliance is a coalition of leading organisations that aim to advance the hydrogen economy in the North West of England. They envision a future in which hydrogen, a clean and renewable source of energy, is a major part of the energy mix.

   The Alliance is working on several fronts to achieve this. They are investing in the development of technologies that can facilitate the efficient production of hydrogen. They are also creating infrastructure for the storage and distribution of hydrogen, which is a major challenge due to the volatile nature of this element.

   The Alliance is also involved in advocacy work, promoting the benefits of hydrogen energy to policymakers, businesses, and the public. Their work is crucial to the transition towards a low-carbon economy in the UK.

   This should not be confused with the **HyNet Alliance**, which is a project-based consortium bringing together the key partners of the HyNet ecosystem, itself a flagship industrial decarbonisation project for the North West and North Wales. This includes infrastructure developers, hydrogen producers, and end-users.

3. **North West Nuclear Arc:** The North West Nuclear Arc is a strategic grouping of nuclear expertise in the North West of England. They are at the forefront of the development of nuclear technologies, both large-scale generation, development and demonstration of Small Modular Reactors, and fuel reprocessing systems, which are key to the UK's clean energy agenda.

   The Arc is involved in a wide range of activities, from the design and construction of nuclear power plants to the training of nuclear professionals. They are committed to ensuring the safe and effective use of nuclear power, which is a major source of low-carbon electricity.

   The Arc is also involved in research and development activities aimed at improving the efficiency and safety of nuclear power. Their work is helping to ensure that the UK can meet its clean energy targets while also supporting the development of a high-tech, high-skill industry.

UKRI Insights on Enabling Net Zero

Future Cluster Management Options

The ongoing management and funding of these clusters post-development is a critical issue. Most clusters have established some form of plan "owner" for transition to implementation, often involving groups of stakeholders representing key organisations in decarbonisation and regional presence.

1. **Management Involvement of Public Entities**: Clusters like Net Zero North West, Black Country, and South Wales have involved public entities like Local Enterprise Partnerships (LEPs) in their management. This involvement is central to implementing their plans, highlighting the role of public-private partnerships.

2. **Descriptive vs. Prescriptive Cluster Plans**: Management styles vary based on the type of cluster plan. Descriptive plans, like that of Net Zero North West, use a decentralised approach, focusing on individual projects' reported emissions savings. Prescriptive plans, like the Humber Industrial Cluster, involve wide stakeholder engagement and clearly defined project expectations.

3. **Funding Models**: Three key funding sources have been identified for cluster plan management:

   - **External Funding**: Clusters may seek external funding, such as local public funds, for continued work into the implementation phase without requiring upfront financial commitment from members.
   - **Membership Model**: Members benefit from central coordination and may contribute funding to access these benefits.
   - **Lead Organisation and Project Funding**: In clusters centred around major projects, the major project developer may fund the cluster plan management body to ensure the project's success and manage risks.

The future of cluster plan management and funding is dynamic, with each cluster adopting a model that suits its structure, scale, and objectives. For instance, the South Wales Industrial Cluster has established external funding and a membership model. This diversity reflects the varied nature of industrial decarbonisation efforts across different regions and sectors.

Lessons and Insights for the North West

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As the North West Net Zero Cluster advances towards establishing an enhanced body or agency, it is pivotal to integrate lessons from its robust history and other successful UK clusters, while embracing innovative approaches for future challenges.

- **Leveraging Existing Strengths:** Building on its strong foundation, the Cluster should continue to enhance its existing collaborations. This involves deepening partnerships and expanding networks to include a wider array of stakeholders, thereby fostering a more comprehensive approach to decarbonisation.
- **Strategic Vision and Expansion:** Learning from the Humber Cluster, expanding the strategic vision to encompass larger-scale integration of regional decarbonisation initiatives is essential. This strategic foresight will enable the Cluster to anticipate future trends and adapt accordingly.
- **Innovative Collaborative Models:** The Cluster can adopt innovative collaborative models, as exemplified by the Black Country and Scottish clusters. This could involve inviting new stakeholders and diversifying partnerships to bring fresh perspectives and solutions to the table.
- **Enhanced Governance and Resource Management:** Learning from Tees Valley, establishing robust governance structures and efficient resource management systems will be crucial for managing the expanded scope of the Cluster's activities.
- **Policy Advocacy and Sustainable Funding:** As the Cluster evolves, intensifying policy advocacy and developing sustainable funding strategies will support its ambitious goals. This will involve engaging with policymakers to ensure alignment with national and regional policies.
- **Community Engagement and Workforce Development:** Continuing to engage with local communities and focusing on upskilling the workforce for emerging green industries will ensure inclusive growth and sustainable development.
- **Decentralised Approach and Flexibility:** Embracing the decentralised approach, the Cluster acknowledges that organisations and projects will source funding individually. This flexibility allows for tailored solutions to specific project needs, fostering innovation and agility in project execution.
- **Adapting Management and Funding Models:** The North West Cluster might benefit from adopting a hybrid model, which combines elements of external funding and a membership model. This approach could support the varied needs of the cluster, balancing the need for centralised coordination with the flexibility for individual project initiatives.
- **Long-term Sustainability:** Ensuring long-term sustainability and continuity of resources is vital for the Cluster. Monitoring the progress and challenges of other clusters will provide valuable insights, enabling the North West Cluster to adapt and evolve its management and funding strategies effectively.

Assessing Business Model Options

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Based on our research and understanding of suitable business models that may be appropriate for an intervention agency, we can outline the following as suitable options to consider. The following table lists the key features and pros and cons of each.

Business Model Structure	Key Features and Characteristics	Pro's	Con's
Limited by Shares Company	• Shareholders own shares in the company. • Liability is limited to the value of shares held. • Profit distribution to shareholders is common.	• Easy transfer of ownership, allowing for flexibility. • Attracts investors seeking profit-sharing opportunities. • Access to capital markets for fundraising.	• Regulatory and reporting requirements are complex. • Profit distribution to shareholders may lead to conflicts. • Managing a large number of shareholders can be challenging.
Limited by Guarantee Vehicle	• No share capital; members guarantee a specific amount. • Liability is limited to the guaranteed amount. • Focuses on non-profit activities. • Common mode for industry membership vehicles.	• Non-profit focus aligns with social and environmental goals. • Limited liability for members, reducing personal risk. • Charitable and social purposes attract like-minded stakeholders.	• Limited access to equity investment compared to shares. • Limited flexibility in profit allocation due to non-profit status. • May face challenges in attracting significant funding.
Limited Liability Partnership (LLP)	• Partners have limited personal liability. • Flexible management structure.	• Flexibility in management and decision-making. • Partners enjoy limited personal liability. • Access to capital and diverse skills of partners.	• Complex formation process and compliance with regulations. • No separate legal personality for the partnership. • Partners are personally liable for the partnership's debts.
Community Interest Company (CIC)	• Specialised form of limited company. • Assets are locked for community benefit. • Limited dividend distribution.	• Legal commitment to social and environmental purposes. • Attracts social investors who align with the mission. • Directors enjoy limited liability.	• Restricted dividend distribution may deter investors. • Asset lock restrictions limit the use of funds. • Stringent reporting and compliance requirements.
Unincorporated Joint Venture Partnership	• Informal partnership with no separate legal entity. • Governed by a joint venture agreement. • No legal personality.	• Flexibility in management and decision-making. • Minimal formalities and direct control over assets.	• Lack of legal personality may limit contracts and liabilities. • Partners have unlimited personal liability. • Potential for disputes without a formal legal structure.
Hosted Partnership	• Partnership hosted by an existing organisation. • May share administrative functions and resources. • No separate legal entity.	• Access to resources and expertise provided by the host. • Shared administrative functions reduce overhead.	• Potential dependence on the host entity's decisions. • Alignment of interests with the host organisation is critical. • Limited autonomy and control over operations.

Assessing Business Models

In the pursuit of establishing the optimal business model for the North West Net Zero Cluster, it is crucial to assess various options and weigh their respective advantages and disadvantages within the specific context of this ambitious decarbonisation initiative.

Each business model option offers distinct features and characteristics, making it essential to align the chosen model with the cluster's overarching objectives, including fostering collaboration among industrial stakeholders, promoting sustainability, and attracting investments.

- **Limited by Shares:** The Limited by Shares model provides flexibility in ownership and profit-sharing, making it suitable for profit-oriented enterprises. However, this model may not align with the cluster's primary focus on decarbonisation and sustainability, as it places a strong emphasis on generating profits for shareholders. The potential for conflicts among shareholders and complex regulatory requirements may also pose challenges.
- **Limited by Guarantee:** The Limited by Guarantee model holds promise for non-profit initiatives and those focused on social and environmental impact. By eliminating share capital and emphasising a non-profit approach, it aligns well with the cluster's mission. However, its limited access to equity investment and restricted profit distribution could hinder significant funding.
- **Limited Liability Partnership (LLP):** LLP offers flexibility in management and limited personal liability for partners, making it appealing for collaborative endeavours. However, its complex formation process, potential personal liability, and lack of a separate legal personality may present challenges for a large-scale initiative like the North West Cluster.
- **Community Interest Company (CIC):** The CIC model prioritises social and environmental purposes, reflecting the cluster's mission. Its commitment to locking assets for community benefit and limited dividend distribution align well with sustainability goals. Nonetheless, the restriction on dividend distribution may deter investors, and the stringent reporting and compliance requirements may require significant administrative effort.
- **Unincorporated Joint-Venture Partnership:** This model provides flexibility in decision-making but lacks a separate legal identity, which can limit contract negotiations and impose unlimited personal liability on partners. This model may not be suitable for an initiative seeking long-term sustainability and liability protection.
- **Hosted Partnership:** A Partnership hosted by an existing organisation, such as a Council or Combined Authority, or a University, can provide access to resources and expertise, reducing overhead costs. However, it may entail dependence on the host's decisions and potentially limit autonomy and control over operations.

Cluster Business Model

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Recommendation: Limited by Guarantee (LBG) Model with Inclusive Membership Structure

After a thorough examination of various business model options, the Limited by Guarantee (LBG) model, augmented by an inclusive membership structure, is the most suitable choice for the North West Net Zero Cluster. This recommendation aligns with the cluster's core purpose and presents a balanced approach to governance that fosters collaboration across diverse stakeholders.

Key Features:

- **Limited by Guarantee Model:** The LBG model signifies the cluster's non-profit status, emphasising social and environmental objectives over profit generation. It is an appropriate choice for a cluster dedicated to driving industrial decarbonisation while maximising community benefits.
- **Inclusive Membership Structure:** Instead of exclusively focusing on industrial membership, this approach welcomes a wide range of stakeholders, including industrial players, public bodies, local councils, research institutions, and academia. It creates a holistic ecosystem that harnesses collective expertise and resources.

Pros:

- **Alignment with Cluster's Mission:** The LBG model reinforces the cluster's commitment to non-profit, social, and environmental objectives. It ensures that the cluster's assets are dedicated to achieving its mission, rather than individual profit.
- **Limited Liability:** Members' liability is restricted, reducing personal risk and encouraging greater participation and investment.
- **Inclusive Collaboration:** An inclusive membership structure promotes collaboration among diverse stakeholders, leveraging their combined knowledge and resources for effective decarbonisation efforts.
- **Holistic Approach:** Engaging with public bodies, local councils, and research/academic institutions enhances the cluster's capacity to address multi-faceted challenges in industrial decarbonisation.

Cons:

- **Equity Investment Limitations:** The LBG model may limit access to equity investment, potentially affecting the cluster's financial flexibility.
- **Compliance Requirements:** There are specific legal and regulatory compliance requirements associated with the LBG model, necessitating meticulous governance and reporting.

Analysis:

The LBG model, with its non-profit orientation, aligns with the cluster's mission of advancing social and environmental objectives. It offers the advantage of limited liability for members, making it an attractive choice for industrial stakeholders and other participants. However, the limitation on equity investment and the need for compliance can pose challenges.

The proposed inclusive membership structure extends beyond industrial players, creating a dynamic ecosystem that engages public bodies, local councils, research institutions, and academia. This approach fosters collaboration and knowledge sharing among diverse stakeholders, enriching the cluster's ability to tackle complex decarbonisation challenges.

Recommendation:

In light of these considerations, the recommendation is to adopt the Limited by Guarantee (LBG) model with an inclusive membership structure.

This model encapsulates the cluster's values and mission while fostering collaboration across a broad spectrum of stakeholders. It ensures that the cluster benefits from the combined expertise, resources, and commitment of industry, public bodies, local government, research, and academia.

This approach not only advances the cluster's decarbonisation objectives but also strengthens its position as a collaborative force driving sustainable industrial transformation in the North West region.

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A Model for the North West

This chapter outlines a proposal for the design and governance of the coordination and intervention agency, identifying recommended delivery options and key features including resourcing and financing considerations.

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Options Appraisal

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This Options Appraisal is a critical component of the decision-making process for the North West Cluster's progression. It evaluates five strategic options.

Each option is assessed against three key criteria: Alignment with Design Principles, Ability to Deliver the Required Functions, and Alignment with Business Models Identified.

These criteria ensure an objective analysis, focusing on practicality and strategic fit.

The purpose of this appraisal is to provide an evaluation of each option, considering its effectiveness in contributing to the cluster's objectives. It aims to balance the need for innovative approaches with operational feasibility, ensuring that the chosen strategy is both realistic and aligned with the long-term goals of the cluster.

This analysis is essential for guiding informed decisions that will shape the future direction of the cluster.

Business Model Structure	Alignment with Design Principles	Ability to Deliver all Required Functions	Alignment with identified Business Models
1. Do Nothing	• Does not adhere to any strategic guidelines. • Contradicts proactive approach necessary for project goals.	• No progression or change in current status. • Fails to address any project requirements.	• No engagement with project strategies or objectives. • Lacks contribution to any business model development.
2. Establish New Co.	• Can be tailored to meet cluster's unique needs. • Potential for high strategic and operational coherence.	• Dedicated mandate enhances function delivery. • Success contingent on proper resources and expertise.	• Potential for strong synergy with overall strategy. • Can be designed to complement existing business models.
3. Hosted Programme within the North West Net Zero Hub	• Likely consistent with Net Zero Hub's principles. • Integration could leverage established guidelines, recognising the Hub lacks legal status itself being hosted by Liverpool City Region	• Access to existing resources and networks. • Integrated approach may streamline function delivery.	• Leverages existing frameworks and resources. • Potential for congruent business model alignment, albeit hosted within a Combined Authority.
4. Net Zero North West (existing structure)	• Ensures continuity with established principles. • Effectiveness depends on past performance.	• Dependent on current resource allocation. • May need adjustments for evolving needs.	• Effective if adaptable to future challenges. • Relies on past model's success and adaptability.
5. Net Zero North West 2.0 (building on the current structure)	• Allows for adaptive evolution of existing framework. • Enhances alignment with evolving project objectives.	• Builds on lessons learned for improved delivery. • Incorporates stakeholder feedback for functionality.	• Integration with new and evolving business models. • Offers innovation and alignment with strategic shifts.

Summarising the Options – Net Zero North West

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In assessing the most appropriate business model for the enhanced North West Net Zero Cluster body or agency, our analysis suggests building upon the successful structure of **Net Zero North West**, as a Limited by Guarantee (LBG) organisation.

This recommendation is grounded in the following considerations:

1. **Focussed Cluster Plan Delivery:** Net Zero North West is currently responsible for coordinating the Cluster Plan, which should remain a core focus for the enhanced body.
2. **Alignment with Non-Profit Objectives:** The LBG structure aligns with the cluster's core objectives of promoting low carbon growth through decarbonisation and environmental sustainability. It underscores the commitment to social and ecological responsibilities, rather than just profit.
3. **Inclusive Membership and Governance:** The LBG model's inherent inclusivity enables broad stakeholder participation. It allows for democratic governance structures where diverse members, including local businesses, community groups, and governmental entities, can have representation and voice in decision-making processes.
4. **Flexibility and Scalability:** The LBG model offers the flexibility to scale operations and adapt to the evolving needs of the cluster. It accommodates expansion in scope and activities, which is crucial for a dynamic entity like the North West Net Zero Cluster.
5. **Financial Stability and Transparency:** Operating as an LBG provides a stable financial structure, with clear regulations for financial management and reporting. This transparency is vital for maintaining trust among stakeholders and securing ongoing funding from diverse sources.
6. **Building on Established Success:** Leveraging Net Zero North West's established framework ensures continuity and builds on the successes and lessons learned. This approach reduces the learning curve and implementation time, allowing us to capitalise on existing momentum and relationships.
7. **Enhanced Credibility and Stakeholder Confidence:** An LBG model, with its established legal and operational framework, enhances credibility among stakeholders, including investors, partners, and the community. It signals a serious, long-term commitment to the cluster's objectives.
8. **Legal and Financial Advantages:** As an LBG, the cluster agency can enjoy certain legal and financial benefits, such as tax efficiencies and eligibility for grants and public funding, which are crucial for a non-profit entity focused on sustainability and community development.
9. **Risk Management and Liability Protection:** The LBG structure provides a clear legal entity, offering liability protection to its members and management. This is essential for managing risks associated with large-scale industrial and environmental projects.
10. **Opportunities for Collaboration and Partnerships:** This model facilitates easier collaboration with other organisations and governmental bodies, as it is recognised and trusted within the legal and business community.

By adopting and enhancing the structure of Net Zero North West, the cluster can effectively lead the region's transition towards a sustainable, net-zero future.

This model not only aligns with the existing cluster plan's strategic objectives but also provides a robust framework and builds on the success of Net Zero North West to date.

It has the potential to position the North West Net Zero Cluster as a leader in industrial decarbonisation, setting a benchmark for other regions to follow.

Enter 'Net Zero North West 2.0'.

Staffing and Resource

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We now look at some key needs for the North West Cluster agency itself, a crucial aspect of its success will be its staffing and resourcing strategy. The organisational structure must be designed to effectively manage and drive the cluster's objectives.

Key Staffing Roles:

1. **Chief Executive Officer (CEO):** The CEO will be the pivotal figure in driving the cluster's strategic agenda and operations. We understand the potential transition of Net Zero North West's current CEO, and as part of retirement and succession planning, it may be beneficial for the board to consider that the current incumbent moves into the role of part-time Chair for a period. In this capacity, they can continue to offer invaluable guidance and continuity, leveraging their experience and network to support a new CEO. This transition would ensure a blend of established leadership and fresh perspectives at the helm of the cluster.
2. **New CEO:** The recruitment of a new CEO is a significant step. The ideal candidate should possess a strong background in industrial decarbonisation, leadership skills, and the ability to navigate complex stakeholder landscapes. This role demands strategic vision, operational excellence, and a deep understanding of the challenges and opportunities in the decarbonisation sector.
3. **Director of Operations:** This role is critical for the day-to-day management of the cluster's activities. Responsibilities include overseeing project implementation, managing budgets, and ensuring operational efficiency.
4. **Director of Partnerships and Engagement:** This position focuses on building and maintaining relationships with key stakeholders, including industry partners, government bodies, and academic institutions. The role is pivotal in fostering collaboration, securing funding, and advocating for policy support.

Leveraging Partnerships for Resource Support:

1. **North West Net Zero Hub and LEPs/Combined Authorities:** Collaborating with these entities can provide valuable support in areas such as HR, finance, and communications. This partnership approach can enhance the cluster's capabilities while ensuring cost-effectiveness.
2. **Seconded Resources:** Consideration should be given to seconding resources from partner organisations, particularly in specialist areas such as HR, finance, and communications. This approach offers flexibility and access to a diverse skill set, reducing the need for a large permanent staff while benefiting from the expertise of established professionals in these fields.
3. **Shared Back-Office Services:** Collaborating with partner organisations for shared back-office services can optimise operational efficiency and reduce overheads. Services such as HR, finance, and IT support can be effectively managed through shared service agreements, allowing the cluster to focus on its core mission.
4. **Voluntary and Advisory Roles:** Engaging with experts and leaders in the field on a voluntary or advisory basis can provide valuable insights and guidance. These roles can supplement the core team, offering strategic advice and sector-specific expertise.

In summary, the staffing and resourcing strategy for the North West Net Zero Cluster should focus on establishing a strong leadership team, complemented by strategic partnerships for resource support. This approach will ensure a robust foundation for the cluster to drive forward its objectives in industrial decarbonisation.

Governance and Accountability

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1. **Organisational Structure:** As a Limited by Guarantee (LBG) entity, the North West Net Zero Cluster already has an established board comprised of representatives from member companies. This should be reviewed in line with any potential and agreed expansion to ensure an inclusive representation across all key stakeholders. Given the potential for more member companies than board positions, a formal appointment process might be necessary to ensure fair and strategic representation. This process will be designed to balance the interests of various stakeholders while maintaining efficient governance.
2. **Stakeholder Engagement:** Effective stakeholder engagement is paramount. The governance model should be crafted to actively engage with both public sector bodies and private industry, ensuring alignment with government policies and corporate interests. This dual engagement approach aims to facilitate collaborative decision-making and leverage the strengths of various stakeholders in driving the cluster's objectives.
3. **Reporting and Monitoring:** Accountability should be upheld through rigorous reporting and monitoring mechanisms. The cluster should track investment flows, Environmental, Social, and Governance (ESG) metrics, project sequencing, and crucially, emissions reduction. Regular reporting should be mandated to maintain transparency with investors, government bodies, and member companies. This comprehensive monitoring will ensure the cluster's activities align with set goals and regulatory requirements.
4. **Compliance:** Adherence to corporate, investor, and government reporting requirements will be critical. The cluster should establish processes to ensure compliance with all relevant legal and regulatory standards. This includes the management of reporting obligations for large Nationally Significant Infrastructure Projects (NSIPs) that many of the cluster's projects will constitute.
5. **Risk Management:** The cluster should implement robust risk management practices typical for a membership cluster agency. Risk management should also extend to overseeing the complex risks associated with large NSIPs. This will involve identifying, assessing, and mitigating potential risks, ensuring that projects are executed effectively and sustainably.
6. **Decision-Making Processes:** While detailed decision-making processes will be developed during the business planning stage, the foundational principle will be to ensure transparent, inclusive, and effective decision-making mechanisms. This should include clear conflict resolution strategies to address any disagreements or challenges that arise.
7. **Transparency and Communication:** Open communication and engagement will be a hallmark of the cluster's operations. The cluster should commit to transparently sharing information on project sequencing and alignment, ensuring that all stakeholders, including developers, government bodies, investors, and the public, are well-informed. This approach not only fosters trust but also enables coordinated efforts across various projects and entities involved in the cluster.

The governance and accountability framework for the North West Net Zero Cluster should be designed to ensure effective leadership, stakeholder engagement, compliance, and transparent operations, all critical for the cluster's success in achieving its decarbonisation goals.

Funding and Investment Options

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Developing a sustainable financial model for the North West Net Zero Cluster is key to supporting its ambitious decarbonisation goals. A blend of income and investment options will likely be necessary to ensure financial stability and growth.

1. **Membership/Sponsorship Income:**
   - **Description**: Revenue generation through membership fees or sponsorship from stakeholders, including industrial companies, government bodies, and academic institutions.
   - **Advantages**: Provides a steady income stream and fosters member commitment.
   - **Challenges**: Balancing fee affordability with operational revenue needs; maintaining a compelling value proposition.
2. **Government Grants and Funding:**
   - **Description**: Pursuing grants from local, and national government bodies, specifically targeting decarbonisation and green energy initiatives.
   - **Advantages**: Non-repayable funds aligned with public policy.
   - **Challenges**: Typically project-specific with stringent compliance requirements.
3. **Private Investments and Partnerships:**
   - **Description**: Attracting investments from private entities, including corporate investors. This is a more commercial arrangement than traditional sponsorship, either at cluster or individual project level.
   - **Advantages**: Potential for significant funding and access to private sector expertise.
   - **Challenges**: Possible profit-sharing or control-sharing; alignment of goals is critical.
4. **Revenue from Services and Consultancy:**
   - **Description**: Offering consultancy in industrial decarbonisation and sustainability to external entities.
   - **Advantages**: Additional income source; leveraging in-house expertise.
   - **Challenges**: Requires dedicated resources; competition in the consultancy market.
5. **Collaborative Project Funding:**
   - **Description**: Partnering on projects that attract external funding, like R&D initiatives with academic institutions.
   - **Advantages**: Diverse funding sources; promotes innovation.
   - **Challenges**: Requires coordinated project management and goal alignment.
6. **Green Bonds & Sustainable Finance Instruments:**
   - **Description**: Utilising green bonds and other sustainable finance tools for eco-friendly projects.
   - **Advantages**: Attractive to eco-conscious investors; aligns with sustainability goals.
   - **Challenges**: Requires strong creditworthiness; involves regulatory compliance.
7. **Crowdfunding and Community Funding:**
   - **Description**: Using crowdfunding platforms for specific projects or initiatives.
   - **Advantages**: Community engagement; suitable for smaller investments.
   - **Challenges**: Best for smaller-scale projects; effective marketing needed.

The North West Net Zero Cluster's financial model should incorporate a mix of these options for diversified income streams and stability. 'Top slicing' for management or services across a range of the above options could also offer another potential revenue stream.

This hybrid approach balances reliable revenue sources with the potential for larger funding, positioning the cluster to deliver effective leadership and drive decarbonisation in the region.

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Conclusions & Recommendations

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Conclusions

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Our Stage 2 report for the evolution of the North West and North Wales Net Zero Cluster provides a comprehensive analysis of the current landscape and potential future directions for industrial decarbonisation in the North West and North Wales region.

We highlight the critical need for strategic leadership, collaboration, and innovation to drive the cluster's success in achieving its net-zero ambitions, and the continued focus of delivery of the existing cluster plan.

1. **Strategic Leadership and Governance:** We underscore the importance of strong leadership and robust governance structures. These elements are crucial for guiding the cluster's efforts, ensuring alignment with regional and national decarbonisation goals, and maintaining stakeholder confidence.
2. **Collaboration and Stakeholder Engagement:** The analysis reveals that effective collaboration and stakeholder engagement are key to the cluster's continued progress. This involves fostering partnerships across public, private, and community sectors, ensuring that the cluster's initiatives are inclusive and benefit a wide range of stakeholders.
3. **Innovative Business Models:** The evaluation of different business models points to the Limited by Guarantee structure as the most suitable for the enhanced cluster agency. This model aligns with the cluster's non-profit objectives, providing the necessary flexibility, inclusivity, and scalability needed for effective operations.

   Net Zero North West, an existing LBG with industry membership, and current lead for coordination of the cluster plan, offers the potential for an expedient and efficient transition to become an enhanced cluster body, as set out in this report.
4. **Resource Management and Funding:** Effective resource management and securing sustainable funding sources are identified as essential for the cluster's long-term success. The report suggests exploring diverse funding streams, including public-private partnerships and government grants, to support the cluster's initiatives.
5. **Skills Development and Workforce Engagement:** Recognising the changing dynamics of the industry, the report emphasises the need for skills development and workforce engagement, but working with those partners who have direct responsibility for skills. This includes investing in training, reskilling, and upskilling opportunities, as well as creating new job opportunities, particularly in green industries, to support the region's transition to a low-carbon economy.
6. **Adaptability and Continuous Improvement:** The dynamic nature of industrial decarbonisation necessitates adaptability and a focus on continuous improvement. The report recommends that the cluster regularly assess its strategies and operations, adapting to emerging technologies, market dynamics, and policy changes.

This Stage 2 report lays a solid foundation to support the evolution of North West and North Wales Net Zero cluster to continue to support the region's transition towards a sustainable, net-zero future.

By adopting the recommended LBG structure, the preferred option is using the existing Net Zero NW Ltd. (company no. 12737857), which, with the appropriate resources, can enhance collaboration, focusing on innovative and inclusive strategies. With this, the cluster could be well-positioned to lead in industrial decarbonisation and set a benchmark for other regions to follow.

Recommendations / Next Steps

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As the North West and North Wales Net Zero Cluster embarks on its next phase of development, a set of practical and actionable steps are essential.

These guidelines are designed to translate the strategic vision into tangible progress, ensuring the cluster's effective transition and growth. The following points provide a roadmap to achieve these objectives:

1. **Comprehensive Business Plan Development:** Craft a detailed business strategy and plan for the Cluster. This plan should outline strategic objectives, operational tactics, key performance indicators, and a clear roadmap for achieving decarbonisation goals. Alignment to the Five Case model should be considered which could be advantageous when considering access to public funding to support cluster delivery.

2. **Detailed Funding Strategy**
Develop a robust funding strategy. This should include identifying potential funding sources such as membership, sponsorship, government grants, private investments, and public-private partnerships. Prepare proposals and pitches to secure these funds, emphasising the cluster's value proposition and alignment with potential funders' objectives.

3. **Leadership and Staff Recruitment**
Focus on identifying and recruiting key personnel for the cluster. This includes a dynamic leadership team and skilled staff capable of executing the cluster's vision. Consider the formation of an advisory board comprising industry experts to provide strategic guidance.

4. **Industry Engagement and Partnership Building**
Proactively engage with industry leaders and relevant stakeholders to gain their support, investment, and membership. This could involve organising industry forums, roundtable discussions, and networking events to build relationships and encourage collaboration.

5. **Operational Infrastructure Setup**
Establish the necessary operational infrastructure for the cluster. This includes office space, technology systems, and communication platforms for effective coordination and management of the cluster's activities.

6. **Communication and Marketing Plan**
Develop a comprehensive communication and marketing plan to promote the cluster's mission and activities. This plan should include outreach to potential members, marketing materials, and a digital presence through a website and social media.

7. **Skills and Workforce Development Programs**
c. Collaborate with local partners leading on skills policy, including educational institutions and training providers, to develop appropriate courses and workshops that align with the skill requirements of the evolving cluster.

8. **Establishing a Governance Framework**
Create a governance framework that details organisational structure, roles, decision-making processes, and accountability mechanisms. This should ensure transparency, efficiency, and stakeholder representation in the cluster's operations.

9. **Stakeholder Engagement and Community Involvement**
Develop a strategy for continuous stakeholder engagement and community involvement. This should include regular updates, feedback mechanisms, and community outreach programs to ensure that the cluster's initiatives are in sync with community needs and aspirations.

10. **Regular Review and Performance Monitoring**
Set up a system for regular review and monitoring of the cluster's performance against its strategic objectives. This should involve periodic assessments, stakeholder feedback, and adjustments to strategies as necessary.

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Appendices

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Organisations Consulted

The following organisations have provided strategic input to this study:

STAGE 1

- Black Country Industrial Cluster
- Cadent
- Cumbria Local Enterprise Partnership
- Cheshire and Warrington LEP
- Cheshire West and Chester Council
- Department of Energy Strategy and Net Zero (DESNZ)
- Encirc
- Essar Oil
- Greater Manchester Combined Authority
- Humber Industrial Cluster
- Hydrogen East
- Industrial Decarbonisation Research and Innovation Centre (IDRIC)
- INEOS
- Lancashire Local Enterprise Partnership
- Net Zero North West
- North West Net Zero Hub
- North West Business Leadership Team
- North West Hydrogen Alliance
- North Wales Mersey Dee Business Council
- Peel Group
- Progressive Energy
- Siemens
- Solent Industrial Cluster
- South Wales Industrial Cluster
- Tata Chemicals Europe
- The Mersey Dee Alliance
- UK Research & Innovation
- Uniper
- Welsh Government

STAGE 2

- Offshore Energy Alliance
- Carbon Capture & Storage Association
- Cheshire and Warrington LEP
- Net Zero North West
- North West Net Zero Hub
- North West Nuclear Arc
- Black Country Industrial Cluster
- UK Research & Innovation
- Hydrogen East

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