University of Southampton

THE SOLENT CLUSTER

SUSTAINABILITY & RESILIENCE INSTITUTE

Policy Brief

Extending Industrial Cluster ambition and governance to maximise the socioeconomic benefits of decarbonisation

EXECUTIVE SUMMARY

Research shows that acceptance for climate change policies increases when the public are involved. The concept of Industrial Clusters should be expanded to mandate participation of regional communities, to ensure choices and trade-offs of different decarbonisation pathways adequately consider local context and maximise co-benefits of decarbonising the economy. As it stands, there is a risk that decision making is concentrated in governance structures that do not represent groups in the region who will be most affected by decisions made in Industrial Clusters, enabled by government funding. Universities and social scientists are well placed to advise and support with public engagement and participatory decision making.

POLICY CONTEXT

The Labour government is taking a mission-led approach, setting itself ambitious goals to kickstart economic growth in every region, break down barriers to opportunity, and make Britain a clean energy superpower.[1] Simultaneously, the UK urgently needs to reduce greenhouse gas (GHG) emissions to achieve its legally binding Net Zero 2050 targets, reducing emissions by 100% of 1990 levels, and mitigate climate change. The Climate Change Committee's progress report to Parliament in July 2024 set out the risks to meeting the UK's near-term emissions targets, with only one third of emissions reductions required to achieve the 2030 target currently covered by credible plans. They state that action is needed across all sectors of the economy, with low-carbon technologies becoming the norm, and recommend that public engagement on low-carbon choices is needed to empower people.[2]

Policy, at a local and national level, has a major role in shaping our decarbonisation pathway, including choice of renewable energy mix, deployment of technology, and future transport systems. Under the previous government, industrial decarbonisation efforts were driven through a cluster-led approach. The government's Grand Challenges policy in 2021 set the ambition to establish the world's first Net Zero Industrial Cluster by 2040, with projects supported by the Industrial Decarbonisation Challenge Fund. Their ambition was to enable the formation of collaborative Industrial Clusters, through which the biggest emitters of greenhouse gases could work in collaboration to plan and deploy low-carbon technologies such as carbon capture and storage or hydrogen generation, which would enable decarbonisation of a range of energy-intensive industries that are geographically co-located.

The Solent Cluster was established in November 2022, in response to this policy, intended to enable collaboration between organisations seeking to decarbonise the local economy.

They have recently begun creating a Local Industrial Decarbonisation Plan (LIDP)[3] supported by Department for Energy Security and Net Zero funding.

The transition to Net Zero presents a significant opportunity to address societal inequality and create socioeconomic co-benefits. The UK's Net Zero Strategy[4] recognises that decarbonisation offers multiple benefits in addition to mitigating the effects of climate change, including creation of jobs and business growth. The Climate Change Committee has also highlighted the health benefits of improved housing standards and a more sustainable diet. Mission Zero: The Independent Review of Net Zero[5] led by MP Chris Skidmore described Net Zero as the 'growth opportunity of the 21st Century' but said government needed to act to make the most of the opportunity. The extent to which these co-benefits are realised will depend on our route to decarbonisation along with the degree of public engagement and systemic behavioural change.

There are also risks and challenges restricting regional decarbonisation and socioeconomic transformation. Social impacts of the Net Zero transition must be carefully managed to enable a just transition to Net Zero. A just transition articulates the possible social benefits of a transition to Net Zero, defined by The international Labour Organization (ILO) as "greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind."[6] The Climate Change Committee suggest that the economics of a just transition needs a much wider investigation to assess the plausibility of the complete restructuring of the economy: asking can the workforce be re-skilled and re-employed and what are the economic consequences for local areas within the UK?[7]

OUR RESEARCH FINDINGS

Public engagement with climate change and decarbonisation, particularly two-way dialogue between decision makers and the public is crucial but not yet fully embedded in policy making.[8] Effective regional engagement and leadership requires working with the public to co-design a desirable yet feasible plan for decarbonisation, and in doing so translate abstract climate goals into concrete outcomes. Decision makers from business and government should co-design the regional vision with diverse people across the country and communicate it in a coordinated and consistent way.[9] Research at the University of Southampton has demonstrated one method through which to consider whole communities in a Net Zero transition, through engagement with local communities to input into The Solent Cluster Local Industrial Decarbonisation Plan development.

Through the funding awarded to The Solent Cluster to create a Local Industrial Decarbonisation Plan, the University of Southampton has delivered a series of workshops to map out plausible futures for the region, engaging with over one hundred members of the public, local businesses, local authorities and community groups to understand their preferences and perspectives on how the region should decarbonise. The output of the project is a perception roadmap to help the wider region and policy makers understand public preferences and visions of a low-carbon future for the Solent region.

In this research we have analysed some of the key perceived opportunities, benefits and disadvantages presented by targeted technologies in the Solent including job types, transport provision, air quality, land use and emissions reduction, as well as approaches to decarbonising the economy such as sources of funding and the balance of mitigation and offsetting. We have identified risks and barriers hindering deployment of technologies and developed recommendations for enabling actions that policy makers and businesses can undertake to maximise the potential benefits of decarbonising the Solent region.

Research and engagement took the form of 'Plausible Futures' workshops designed to understand the trade-offs people in the region are willing to make in line with their preferences and priorities. The findings from these workshops show the gap in where the public currently sees the region, compared to what they believe is likely in the future based on business as usual, and in an ideal future. Despite some variance between preferences across different stakeholder groups, a clear picture does emerge with a broad consensus on perceived and ideal future states.

Key findings from the data include:

1. **PERCEPTION OF TODAY**
   There is a strong sense that the money and drive for decarbonisation is coming from the public sector and regulation. However, communities believe it is the private sector that is doing the work and dominating thinking. This is perhaps why we see a technical focus on technology. Mitigation is perceived as the priority for current regulation, as opposed to offsetting.

2. **PERCEPTION OF THE BUSINESS-AS-USUAL FUTURE**
   The private sector is expected to dominate future action. Participants think that we will still see a strong regulatory environment, but in tandem with a strong shift to the private sector providing both finance and doing the work. This aligns with their anticipation of a more transformational approach to education and training, and a likely shift from mitigation of greenhouse gases to offsetting greenhouse gases and technology based approaches dominating.

3. **PLAUSIBLE IDEAL FUTURE**
   Regional stakeholders would like more Local Devolved Government control. Voting showed a real shift towards a strong regulatory and public sector framework for decarbonisation, including a dominance of Nature based and behaviour-based solutions with mitigation dominant over offsetting.

There was a clear gap in what community members expected to happen in the future compared to what they would like to see happen in the future. This research explores how Cluster-led decisions may diverge from public preferences, highlighting the risk of ignoring the unique socioeconomic conditions of the region and missing potential benefits of decarbonisation for the local communities, as well as losing public support for new technology-led decarbonisation programmes. Discussions also highlighted the need to build trust between different sectors to enable collaborative working, particularly large businesses represented in Industrial Clusters who have historically been high emitters of greenhouse gases.

RECOMMENDATIONS FOR POLICY MAKERS

Extending Industrial Cluster remit and governance to include local communities would maximise the socioeconomic benefits of decarbonisation and reduce the risk of losing public support for decarbonisation projects. To date, national decarbonisation policies have not adequately considered the socioeconomic context within which technologies will be deployed.

The Industrial Clusters represent an incredible opportunity for local communities, individual regions, and the UK to affect real change in sustainable energy production and consumption. The clusters can and will play a fundamental role in the world's fight against climate change, supporting the UK in reaching Net Zero emissions by 2050. However, the current configuration of the Clusters is too focused upon technological solutions. Their remit should be extended to develop regionally focused understanding of the social, cultural and economic impacts of industrial decarbonisation and how these might vary spatially and temporally depending on the pathways chosen for technical decarbonisation.

With the appropriate expansion of membership and focus existing clusters can also address the diverse socioeconomic impacts of highly diverse scenarios of decarbonisation. They should consider jobs, training and education linked to different decarbonisation choices, and the co-benefits and disbenefits associated with each potential pathway.

With a socioeconomic perspective on the impact of different technological decisions, built through engagement with communities, Industrial Clusters will be able to support progress on multiple Government missions, kickstarting economic growth in every region, as well as breaking down barriers to opportunity.

To achieve this, future policies which further support Industrial Clusters should:

- Redefine the purpose of Industrial Clusters beyond emissions reduction, to include a duty to maximise economic benefit and a just social transition in their regions.

- Necessitate consultation with all regional stakeholder groups on decarbonisation roadmaps and major decisions such as technological pathways and deployment timelines.

- Embed local communities in governance and decision making frameworks, to ensure public experience is embedded from the top down.

Universities are well placed to support policy makers and Industrial Clusters to design and deliver an extended remit, applying social science principles and best practice on community co-creation, participatory decision making, systems thinking at a regional scale and the modelling of future scenarios.

[1] https://labour.org.uk/change/mission-driven-government/
[2] https://www.theccc.org.uk/publication/progress-in-reducing-emissions-2024-report-to-parliament/
[3] https://www.gov.uk/government/publications/local-industrial-decarbonisation-plans-competition#:~:text=The%20Local%20Industrial%20Decarbonisation%20Plans%2 0(%20LIDP%20)%20competition%2C%20run%20by,decarbonise%20and%20reduce%20their%20emissions
[4] https://www.gov.uk/government/publications/net-zero-strategy
[5] https://assets.publishing.service.gov.uk/media/63c0299ee90e0771c128965b/mission-zero-independent-review.pdf
[6] https://www.ilo.org/empent/areas/social-finance/WCMS_825124/lang--en/index.htm
[7] https://www.theccc.org.uk/wp-content/uploads/2023/05/CCC-A-Net-Zero-Workforce-Web.pdf
[8] https://cast.ac.uk/wp-content/uploads/2024/07/CAST-the-centre-for-climate-change-and-social-transformations-cast-briefing-29-five-principles-for-good-public -engagement-how-to-get-people-involved-in-the-climate-conversation.pdf
[9] https://cast.ac.uk/wp-content/uploads/2024/07/CAST-the-centre-for-climate-change-and-social-transformations-cast-briefing-29-five-principles-for-good-public -engagement-how-to-get-people-involved-in-the-climate-conversation.pdf

University of Southampton

SUSTAINABILITY & RESILIENCE INSTITUTE

THE SOLENT CLUSTER