1. Introduction

The development of an Energy Strategy for Sheffield City Region (SCR) is a response to the SCR Integrated Infrastructure Plan (IIP) which commits the Local Enterprise Partnership (LEP) and the Mayoral Combined Authority (MCA) to producing a low carbon energy strategy.
1.2 A draft of the SCR Energy Strategy was presented to the Infrastructure Board in August 2019. Since then Key Stakeholders have been consulted on the draft Strategy; the University of Sheffield has completed a ‘Provocation Study’ of the Strategy; and Phase 2 of the Carbon Targets and Future Scenarios commission well underway. This report presents the key findings and potential implications for the Strategy of all these outputs. The consultant Ricardo will present the emerging Carbon Targets and Future Scenario outputs.

2. Proposal and Justification

2.1 Stakeholder Engagement

On 4th September, 45 stakeholders from across the public, private and voluntary sectors attended a workshop, which was split into two parts: feedback directly on the SCR Energy Strategy; and input into Phase 2 of the Carbon Targets and Future Scenarios analysis. A full summary of the workshop is available on request and the key points raised at the workshop / followed up with written comments afterwards are:

- **Brand:**
  - Generally positive support for the ‘Green Heart of Great Britain’ brand.
  - The brand must be reflected in every SCR strategy to gain traction

- **Vision:**
  - Changing references from ‘low carbon’ to ‘zero carbon’
  - Needs to include a greater sense of urgency
  - Missing the word ‘affordable’

- **Goal 1 (Business):**
  - We are missing a skills element eg. need to specifically refer to the trades?
  - Focus on the biggest emitters
  - Wording too soft / not specific enough in places

- **Goal 2 (Generation/Storage/Distribution):**
  - May be too technology specific in some policies (e.g. heat networks)
  - Heat needs to be more prevalent
  - Could benefit from a greater focus on innovation

- **Goal 3 (Homes & Communities):**
  - New houses need to be zero carbon as soon as possible
  - Should be ‘eliminating’ avoidable excess winter deaths not just ‘reducing’

- **Goal 4 (Transport):**
  - Public transport should be the quick win given the powers of local authorities and the South Yorkshire Public Transport Executive
  - Include avoiding travel (eg. more flexible working & working from home)
  - Should air quality be included since it is an indirect benefit of reducing carbon emissions from transport?

- **General:**
  - The Strategy should be about achieving zero carbon, not just about energy
  - Needs more of a focus on environmental factors e.g. tree planting and peatland restoration.

2.2 University of Sheffield ‘Provocation Exercise’

Internal funding was awarded to Drs Nick Taylor-Buck and Alastair Buckley for twelve PhD students to carry out a ‘provocation exercise’ on the Draft Strategy. The work included:

- An internal facilitated workshop for 28 participants in June 2019 coupled with interviews with key University of Sheffield employees.
The collection of background research data relating to UK and SCR
decarbonisation in the areas of transport technology, transport strategy, power
generation, energy use, policy scenarios, building energy performance, land use
impacts and opportunities, mine water heat sources, air quality, fuel poverty,
community energy and the co-benefits of decarbonisation.
The synthesis of this background data into recommendations and reviews.

The Draft Final Provocation Report outlined 14 improvements to the SCR Energy Strategy
and is attached at Appendix 1. The key recommendations include:

- The structure of the Strategy should better reflect the goals and key content.
- It should use a “biggest first” approach and prioritise sectors where the opportunity
  for regional intervention overlaps with significant energy use.
- It should more strongly reflect national policy’s ambition for carbon reduction with a
  less emphasis on an economic focus and a greater focus on carbon / climate.
- It should be explicit about social and environmental co-benefits and risks, such as
  fuel poverty and public transport infrastructure.
- Policies should have enough detail to enable proper evaluation of impacts, and it
  would be useful for policies to be more focused on fewer high impact interventions.

2.3 Carbon Targets & Future Scenarios

In July 2019, ‘Ricardo Energy and Environment’ was appointed to carry out analysis to
inform potential Carbon Targets and Future Scenarios. The commission is in three phases:

Phase 1
To produce a science-based carbon target for South Yorkshire based on the commitments
within the UN Paris Agreement. The proportion of South Yorkshire’s contribution to those
commitments was calculated using the Local Authority CO₂ statistics and the SCATTER
tool to ensure that whatever target produced could be compared to those of other local
authorities in South Yorkshire/city region.

Phase 2
A ‘bottom-up’ approach is also being employed to assess the contribution of a number of
‘tangible targets’ that can be met or influenced directly / indirectly by SCR or other local
authority partners. These ‘tangible targets’ will be assessed as future scenarios with
differing levels of ambition and can be described as:

- Business as Usual (BAU): This assumes that only the bare minimum to be
  achieved is to meet any legal requirements that are expected, including an
  appropriate proportion of national requirements.
- Low ambition
- Medium ambition
- High ambition: This assumes all efforts are made to meet or exceed the progress
  required to stay within the overarching carbon budget.

The Stakeholders Group provided input into the Phase 2 of the Carbon Targets and Future
Scenarios analysis at the Workshop on the 4th September, which has helped inform the
consultant’s work. These included the need to consider:
• ensuring low cost finance for enabling energy efficiency in businesses.
• similarly, enabling insulation and renewable heat installation in existing housing
• Enhanced incentives for ‘green’ businesses wanting to re-locate to South Yorkshire.
• Immediately decarbonise buses and taxis
• Expand coverage of safe, separate and continuous cycle routes as part of wider Active Travel interventions.
• New commercial buildings to be energy efficient and must have local energy Local energy generation installed where possible
• Invest in smart grid infrastructure to aid DSR and grid balancing
• Significantly Increase tree planting and restore upland and lowland peat.

Ricardo Energy & Environment will be presenting the emerging findings of the Phases 1&2 for the Infrastructure Board’s consideration and steer – see Appendix 2. Phase 3 will be undertaken through November and December and will set out the potential impacts on GVA growth, Job creation and productivity of the preferred Target(s) and Scenario(s).

3. Consideration of alternative approaches
3.1 The preparation of the Strategy involved two consultants and a range of evidence and different options, approaches, objectives, vision etc which have been informed through consultation with key Stakeholders over the past 15 months and been considered by and a steer provided on various issues and elements by both the SCR Infrastructure Board and the SCR Housing and Infrastructure Board which preceded it.

The comments and suggestions on the Draft Strategy itself by Key Stakeholders and the University of Sheffield will further inform the revision of the content and approaches within the Strategy prior to it being finalised; as well as the Targets and Scenarios commission.

4. Implications

4.1 Financial
This work is supported by £40k from BEIS with a further £30k allocated from SCR funds. This budget is sufficient to complete the Strategy. Further support from BEIS was also secured to employ a full-time Senior Programme Manager to lead on Energy and Sustainability activity including to finalise the SCR Energy Strategy. The post is hosted by SCR and works alongside district lead officers across the SCR area as well as regionally through the North East, Yorkshire and Humber Energy Hub.

4.2 Legal
A Memorandum of Understanding has been agreed with BEIS related to their funding contribution to support the preparation of the Strategy.

4.3 Risk Management
A risk assessment has been undertaken for the project which is continually monitored.

4.4 Equality, Diversity and Social Inclusion
None arising from this report. The SCR Energy Strategy will help to address fuel poverty and the health and wellbeing of the local populations and, therefore, will contribute to improving social inclusion.

5. Communication
5.1 Proactive communications will be delivered across a range of channels, including digital, social and traditional media, once the Energy Strategy is in a position to be published.
6. Appendices/Annexes

   Appendix 1 – University of Sheffield Provocation Draft Final Report
   Appendix 2 - Carbon Targets and Future Scenarios Emerging Findings - Presentation

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Background papers used in the preparation of this report are available for inspection at: 11 Broad Street West, Sheffield S1 2BQ. Other sources and references: N/A.