

## TRAFFORD COUNCIL

**Report to:** Executive  
**Date:** 13 March 2023  
**Report for:** Note  
**Report of:** Executive Member for Climate Change and Transport Strategy

### Report Title

**Greening Trafford Park and Low Carbon Trafford Park Studies**

### Summary

Through a successful bid for external finance to the GMCA, the Greening Trafford Park and Low Carbon Trafford Park studies were commissioned to support delivery of the Trafford Carbon Neutral Action Plan, and in meeting the Council's Climate Emergency Declaration for the borough.

The Low Carbon Trafford Park Study identifies opportunities for new, carbon neutral and sustainable forms of power generation in the Park, while the Greening Trafford Park Study focuses on a 'greening' infrastructure framework for Trafford Park to reduce carbon emissions through environmental and infrastructure improvements. Both studies are complementary and meet the Corporate Priority of Addressing Our Climate Crisis.

### Recommendation(s)

It is recommended that the Executive:

- (i) Notes the Greening Trafford Park and Low Carbon Trafford Park studies.
- (ii) Agrees that a prioritised list of interventions is developed for both studies, led by the Trafford Climate Change Commission, and research undertaken on potential funding sources for delivery.
- (iii) Agrees that an initial scoping exercise is undertaken to consider whether a Business Improvement District (BID) may be a suitable vehicle to take a lead role on the delivery of specific actions arising from the studies.
- (iv) Agrees that the studies are communicated to key stakeholders and consultees.

Contact person for access to background papers and further information:

Name: Oliver Shimell, Inclusive Economy and Communities Manager  
Caroline Wright, Strategic Planning and Growth Manager

Background Papers: None

Appendices: Appendix 1 – Low Carbon Trafford Park Study  
Appendix 2 – Greening Trafford Park Study

Implications:

Relationship to Policy Framework/Corporate Priorities	The studies are closely linked to the Council's Corporate Priority of Addressing our climate crisis. In addition, the studies have strong links to the Council's Carbon Neutral Action Plan and Council's Climate Emergency Declaration for the borough.
Relationship to GM Policy or Strategy Framework	The Places for Everyone (PfE) Plan (2021) identifies Trafford Park as being part of the Core Growth Area offering the conditions to boost the role of GM as a Global City.
Financial	The studies were part funded through finances drawn down from the GMCA and through a contribution from the Council's reserves. In taking forward any actions arising from the studies, it is likely that the activities will have to be funded from external sources in partnership with private sector beneficiaries across Trafford Park. External finance for taking forward actions arising as part of the studies will also be researched.
Legal Implications:	There are no legal implications arising from the report.
Equality/Diversity Implications	None as a consequence of this report.
Sustainability Implications	The studies set out a range of opportunities to contribute towards sustainability issues.
Carbon Reduction	Both studies have considered the broad carbon production of Trafford Park and highlighted a wide range of opportunities and interventions that could be put in place to reduce carbon emissions. As the Council is not a significant land or asset owner on Trafford Park, taking forward initiatives to reduce carbon emissions on the park will require a strong partnership approach between the public and private sectors.
Resource Implications e.g. Staffing / ICT / Assets	External consultants were used to form the studies which was funded through a mix of Council finances and an external funding source. In taking forwards key elements of the studies, it is likely that there will be a need to draw down further finance, resources and expertise from external agencies.
Risk Management Implications	The content of the studies are wide ranging and the interventions identified within the studies are ambitious with many risks which need careful management. Depending on which resulting actions are agreed to be taken forward, each scheme will have a full risk assessment undertaken as part of the formulation of the projects.
Health & Wellbeing Implications	The reduction in carbon emissions will have a beneficial effect not only of the users of Trafford

	Park but given its size are likely to have a beneficial effect on the wider borough.
Health and Safety Implications	None as a consequence of this report.

## 1.0 Background

- 1.1 Trafford Council declared a Climate Emergency on 28 November 2018, committing to tackle climate change and work towards carbon neutrality for Trafford as an area as well as for the Council by 2038. In the intervening period, a significant amount of work has been undertaken in the background to understand the implications and options available to the Council to begin to proactively address climate change and the climate emergency within Trafford.
- 1.2 As outlined in Section 3 of Trafford's Carbon Neutral Action Plan (CNAP), 42% of all emissions in Trafford arise from industrial and institutional buildings, with a further 19% derived from on road transport and 11% from commercial buildings and facilities. Taken together this equates for 72% of all carbon emissions in the borough. In order to achieve the rate of carbon emission reduction required to meet the 2038 carbon neutral target set out in the Greater Manchester 5-year environment plan, innovative and radical changes are required. Consequently, Trafford Park was quickly identified as a high priority target for carbon emission reductions.
- 1.3 To remain relevant and competitive, in the current global economy and in light of the climate emergency, the next phase in Trafford Park's evolution should be to lead the way in sustainability and climate change using its rich industrial history and entrepreneurship to act as a beacon for business and a catalyst for sustainable green jobs. For the Park to be able to derive some of its energy and/or heating needs from sustainable sources, and through sustainable and efficient production; is central to reducing carbon emissions.
- 1.4 To support the above therefore, Siemens were appointed to produce the Low Carbon Study (see Appendix 1), whilst Arup, with support from Groundwork, were appointed to produce the Greening Trafford Park Study (see Appendix 2).
- 1.5 The aims of the two complementary studies were:
  - a) To identify the potential for Trafford Park to become a 'low carbon park'; identifying opportunities and potential sites for new, carbon neutral and sustainable forms of power generation, green economy job creation as well as practical measures to assist existing businesses becoming low carbon.
  - b) To produce a 'greening' infrastructure framework for Trafford Park to reduce carbon emissions through environmental and infrastructure improvements; including measures to improve the visual appearance of the park through sustainable greening, and improvements to transport infrastructure focusing on active travel, public transport and the better utilisation of the existing rail line and stations.
  - c) To provide a deliverable, costed and viable plan of interventions, projects and/or schemes to achieve a low carbon and green Trafford Park, along with anticipated timescales.
- 1.6 Taken together, these studies will set the initial foundations for the delivery of sustained and future-proofed growth at Trafford Park as an 'economic powerhouse', setting it clearly on the path to becoming a greener and low carbon park.

## **2.0 Low Carbon Park**

- 2.1 With the overall aim of the Low Carbon Trafford Park study established, Siemens produced a document which sets out a roadmap for Trafford Park to be, and to contribute to achieving, net zero by 2038.
- 2.2 In doing so the study has identified locations and/or schemes to deliver/produce and/or store low carbon/renewable energy and heating within Trafford Park. It has also identified the skills that will be needed to deliver and maintain the schemes that can then be fed into courses and educational facilities. This latter point will support the creation of a sustainable green economy within Trafford for the residents of the borough for the foreseeable future.
- 2.3 The approach of the report is focused on a decarbonization road map which can be broken down into three component parts:
- 1) Category one measures – energy efficiency and conservation. Reduce energy demand: decrease electric and fossil fuel use with energy efficiency measures, smart technologies, and behavioural change.
  - 2) Category two measures – alternative generation and low carbon technology. Renewable and low carbon technological solutions: determine the scale and business case for implementation of low carbon electric and heat technologies throughout Trafford Park, and how these technologies align to Park activities and capabilities; and
  - 3) Category three measures – Impact of Category 1 and 2 measures and low carbon roadmap. Further reduction by aggressive measures and/or offsetting carbon will be required to meet net zero targets

### **Category One Measures - Energy Efficiency and Conservation**

- 2.4 Across Trafford Park, 48 energy efficiency measures across electricity and heat were analysed, ranging from pipe work insulation, wall insulation, behavioural change, energy monitoring and demand oriented lighting. Three scenarios - conservative, moderate and ambitious; were then modelled and tested taking into account carbon emission reductions as well as cost of implementation.
- 2.5 The study found that the moderate scenario results in a 19% decrease in electricity demand and an 11% decrease in heat demand by 2038 resulting in a cumulative emissions reduction of 470,000 tCO<sub>2</sub> between 2023-2038 when compared against Business as Usual (BAU).
- 2.6 These combined measures would cost businesses £225 million between 2023 and 2038, however they would save an estimated £61 million a year when fully implemented.

## **Category Two Measures – Alternative Generation and Low Carbon Technology**

- 2.7 In looking at opportunities for low carbon technologies within Trafford Park, the study considered:
- Solar PV – rooftop and car port installation
  - Wind - Small roadside and car park turbines, plus larger direct wind turbines
  - Waste to Energy – 3 potential sites in Trafford Park identified
  - Combined Heat and Power – limited opportunities and uncertain future
  - Waste Heat Recovery – 7 potential sites – 20 heat recovery nodes identified
  - Geothermal - Several car park locations identified to tap into deep geothermal vein
  - Hydrogen – Trafford Park, able to receive, but future uncertain
  - District Heat Network - 65km underground pipe required to reach all of Trafford Park, and requires delivery of various heat sources (above) to work
- 2.8 From these low-carbon technologies, all except the combined heat and power option could be reasonably taken forward. Together, these would be able to provide electricity and heat to replace the majority, if not all, of grid sourced energy demand within Trafford Park.
- 2.9 Were all these seven low carbon technologies and one district heat network implemented and delivered in rapid succession, by 2038 combined annual electric generation outputs of 567 GWh (Gigawatt Hours) and 1,192 GWhth (Gigawatt Heat Output) are possible at Trafford Park.
- 2.10 Similarly, these seven schemes could generate upwards of 600 green/low carbon technology jobs, ranging from design and construction to maintenance.
- 2.11 The critical component to achieve this carbon emission reduction, is a built-out district heating network. This will be a key prerequisite for the successful application of the outlined low carbon heat technologies, which will enable the capture and distribution of heat across Trafford Park.
- 2.12 The financial cost of implementing all of these measures would require an investment of nearly £900M between 2023 and 2038.

## **Category Three Measures – Impact of Category 1 and 2 Measures and Low Carbon Roadmap**

- 2.13 Were all measures in Category 1 and 2 implemented, the study concludes that a total of 1.6M tCO<sub>2</sub> could be saved between 2022 and 2028, generating up to 814 GWh of electricity and 1,121 CWhth of heat. However, this is largely dependent upon the provision of a rolled out and scaled district heat network.
- 2.14 Even with these significant low-carbon technologies in place, by 2038, Trafford Park is estimated to emit 43,656 tCO<sub>2</sub>, arising mainly from heating needs. In order to meet net zero carbon targets, this remaining amount of carbon would need to be offset or further reduced by the following additional aggressive measures.

- a) Increase Category 1 energy efficiency scenario from 'moderate' to 'ambitious'.
- b) Expanded scope for Hydrogen.
- c) Carbon Certificates/ Offsets.

### **Electric Charging Stations**

- 2.15 With the UK government intending to ban the sale of new petrol and diesel vans and heavy goods vehicles (HGVs) in 2040, significant upscaling in the provision and availability of electric vehicle charging stations and points is required.
- 2.16 Approximately 2,600 electric charging stations/ points providing 12.3 GWh will be required to meet Trafford Park's electric HGV and van needs between 2022 and 2038. It is envisaged that much of this provision can be met within the grounds of existing businesses, and as such no sites are identified. However, the ability of electric HGV charging to be powered by the renewable energy sources identified should not be overlooked.
- 2.17 The required infrastructure to support electric HGV and van charging will need to be considered in the design of any renewable energy/heat sources.
- 2.18 In this regard, the phasing and timetabling of any infrastructure provision should (where possible) be aligned with the delivery of a district heat network, minimising disruption.

### **Low Carbon Study Summary**

- 2.19 A low carbon roadmap scenario implementing Category 1 and 2 measures decreases forecasted annual emissions from 245,161 tCO<sub>2</sub> to 42,656 tCO<sub>2</sub> at a cost of £1.2 billion.
- 2.20 Implementation of proposed Category 2 measures are expected to create ~800 temporary jobs between 2023-2038, with ~100 longer-term positions created for operation, maintenance, and monitoring functions.
- 2.21 Carbon offsetting of 42,656 tCO<sub>2</sub> is estimated to cost between £0.655-3.5 million per year if no technological Category 3 measures are implemented.
- 2.22 Category 3 measures may further decrease CO<sub>2</sub> emissions associated with the realistic pathway, at an additional cost of £171 million, increasing the overall cost of all measures to £1.4 billion. Residual annual carbon would reduce to 12,456 tCO<sub>2</sub>, at an offset cost of £0.187-0.996 million per year.
- 2.23 These interventions have significant costs and the timescales for implementation often span over a long time period and as such it will be necessary to assess how the findings of the Study can be prioritised into an Action Plan that can be taken forward, taking into account the need for multi-sector funding and other projects/ plans for Trafford Park and the immediate surrounding area(s).



### **3.0 Greening Trafford Park Study**

- 3.1 With the overall aim of Greening Trafford Park study established, Arup and Groundwork produced a Green Infrastructure Framework for Trafford Park to become a green and sustainable destination. In particular, the framework sets out how Trafford Park could become a place where people are proud to work, that has a stimulating, enjoyable and safe environment to move around in that enhances people's health and wellbeing and is inclusive and accessible to all.
- 3.2 In terms of connectivity and access, the framework highlights that Trafford Park's vehicle network provides capacity for large volumes of vehicle movements, enabling movement of freight into and out of the area as well as access for people working in the Park. In this regard, it is noted that the park is dominated by road and vehicle infrastructure and identifies that the level of provision and quality of infrastructure for walking, wheeling, and cycling varies across Trafford Park. It concludes that the majority of roads, junctions, and traffic free paths require improvement in order to provide an accessible, attractive and inclusive network for active travel.
- 3.3 It also finds that the pedestrian experience across Trafford Park suffers from narrow footways near high volumes of vehicle traffic and a lack of convenient and safe crossing points. Many junctions and desire lines lack controlled crossings which creates severance and deters pedestrian activity.

#### **Potential Interventions**

- 3.4 In order to better connect people, the Framework identifies several interventions and opportunities that should be explored (including) the creation and implementation of:
- a) Sustainable Transport Routes
  - b) Green Routes
  - c) Place Based Streets
  - d) Public Transport Improvements
  - e) Wayfinding Strategy
  - f) Gateway Opportunities
  - g) Toolkit for Businesses
- 3.5 In addition to transport and access, the Framework also identifies interventions and opportunities to improve the environment and climate resilience of Trafford Park, through (among other things) the creation and establishment of:
- a) Rain Gardens
  - b) Bio-retention Areas
  - c) Bio-retention Tree Pits
  - d) Swales
  - e) Infiltration Trenches
  - f) Detention Basins
  - g) Ponds/ Wetlands
  - h) Permeable Paving
  - i) Kerb Drains, Chanel Drains and Rills
  - j) Green/ Blue Roofs
  - k) Rainwater Harvesting
  - l) Grey Water Recycling

Combined the transport, connectivity and greening measures proposed in the framework, culminate in an Illustrative Masterplan.

- 3.6 Anticipated costs for the interventions identified range from £1 million to £5 million depending on the numbers to be developed, with timescales for implementation ranging from 12 months to 3 years.

### **Funding and Delivery**

- 3.7 The cost of these interventions would be significant and would primarily benefit the users/ occupiers of Trafford Park. Consequently, the Framework identifies a number of funding options that could be explored further, including:

- City Region Sustainable Transport Settlement (CRSTS)
- Active Travel Fund
- Growth Deal Fund
- UK Shared Prosperity Fund
- Greater Manchester Combined Authority (GMCA)
- Central Government
- S106 and/or Community Infrastructure Levy

- 3.8 The Framework also proposes the creation of a Trafford Park Business Improvement District (BID), which would empower the business community to lead a five-year, sustained investment programme in collaboration with the Council and other stakeholders to deliver this transformational change that cannot be achieved by either party working in isolation.

- 3.9 For a BID to come into force, businesses must approve a documented proposal for through a postal ballot. Once approved, the BIDs programme of investment is principally derived from funds raised through a small additional levy (typically up to 1.5% of a premises rateable value) charged to eligible premises within the BID area. Typical daily costs for most premises are equivalent to a daily charge of £2-£3 / day. Larger premises will, through their larger rateable value, attract more significant levies.

- 3.10 From experience of the Altrincham BID, the creation of and support for a BID will require substantial resources from the Council and would need to be factored into any proposal by the Trafford Park business community.

### **Greening Trafford Park Study Summary**

- 3.11 There is significant opportunity to improve the connectivity and environment of Trafford Park to aid in reducing carbon emissions, make the Park more attractive and encourage sustainable travel. Interventions ranging from the creation of sustainable transport routes, place-based streets and gateway opportunities through to grey water recycling, permeable paving and rain garden creation will help to achieve this change.
- 3.12 Funding for the interventions would require both public and private funds. The creation of a Trafford Park BID could assist with this and also provide the strategic direction and oversight for scheme intervention.

- 3.13 The interventions identified in the study have significant costs and the timescales for implementation often span over a long time period, and as such it will be necessary to assess how they can be prioritised into an Action Plan that can be taken forward. This action plan would need to take into account the need for multi-sector funding and other projects/ plans for Trafford Park and the immediate surrounding area(s).

#### **4.0 Engagement**

- 4.1 In developing both studies, the consultants were set the task of ensuring that there were opportunities for interested stakeholders to engage with the process. The consultants developed both online and in person opportunities for consultation with key stakeholders. The initial consultation ran from 26 February to 18th March 2022.
- 4.2 Following on from the initial consultation exercise, companies and Elected Members of Trafford Council were invited to attend a series of interactive workshops in June 2022 to learn about the preliminary findings from the Greening Trafford Park project and the Low Carbon Trafford Park project. The workshops consisted of scene setting and context by Trafford Council. This was followed by presentations from Arup and Groundwork covering the Greening Trafford Park project findings, with a final presentation from Siemens outlining the Net-Zero opportunities and challenges for Trafford Park.
- 4.3 Three in-person workshops were held at the Trafford Ecology Park on Monday 20th June. The online workshop was held on Tuesday 21st June through the MS Teams platform. Each workshop (online and in person) provided businesses and stakeholders with an opportunity to ask questions and share their views on the findings. Over 40 businesses and stakeholders booked onto the workshops.
- 4.4 Once both studies are approved, they will be uploaded on the Council's website and links sent to all key stakeholders and consultees involved in producing the studies. All Members will be sent the links also and the Trafford Climate Change Commission members will receive both studies.

#### **5.0 Delivering on the Findings of the Studies**

- 5.1 Both studies have identified a wide range of potential actions to take forward, including next steps with high level costings and estimated timescales.
- 5.2 Given the wide range of the findings and actions arising from the studies as highlighted above, it is considered appropriate that the next steps are to consider both sets of action plans and develop an approach that will be prioritise those actions that will have the highest impact on Trafford Park and at the same time, begin to identify where there may be potential sources of funding to take forwards the high priority actions.
- 5.3 It should be noted that there are no clear pathways in terms of funding or resources to take forward all of the findings of the studies given their significant financial and timescale requirements. However, without the studies, Trafford would not have the necessary information available to be able develop funding bids when opportunities arise.

- 5.4 The Council has been indicatively successful in securing in the region of £1.77 million in funding from the UK Shared Prosperity Fund (the UKSPF is a replacement domestic fund for EU European Structural Investment Funds) to be spent on projects that support the Trafford Communities and Place Investment Priority. Within the allocation, in the region of £250,000 has been assigned to the delivery of actions arising from the Trafford Park studies with the aim of developing actions that create green, vibrant spaces, reduce emissions and improve the general environment in the Park.
- 5.5 To support delivery of the Carbon Neutral Action Plan and Corporate Priorities, a new Sustainability and Climate Change Officer post will be established on a two-year fixed term. This post is funded from existing Brexit grant monies received by the Council and part of its role will be to assist in delivering key actions from both studies.
- 5.6 In addition, there is also the opportunity to draw down project management resource from the GMCA which could be utilised in assisting work with land and business owners on Trafford Park. The work would focus on investigating the opportunities around the introduction of renewable energy opportunities as set out in the Low Carbon Trafford Park Study.

## **6.0 Wider Corporate Links**

- 6.1 The Greening Trafford Park and Low Carbon Trafford Park Studies are consistent with the Council's Corporate Plan and other policies and strategies, including the Carbon Neutral Action Plan and the Council's Climate Emergency Declaration for the borough. The Studies have clear links to Greater Manchester's five year Environment Plan.

## **7.0 Other Options**

- 7.1 There is the option to simply note the work that has been undertaken as part of the studies, however, given the information the Council is in receipt of it would appear there is now the opportunity to focus time on prioritising activities that may address the issues raised and investigate where there may be additional resource and expertise to take forwards the findings.

## **8.0 Consultation**

- 8.1 There has been significant consultation and engagement carried out as part of developing both studies which was carried out through online consultation and through the offer of in person presentations to both the business community and interested stakeholders.

## **Reasons for Recommendation**

Prioritising the potential projects arising from the studies will enable a focussed approach to be taken in identifying and bidding for external funding and resources to take forwards high priority areas of the studies.

**Key Decision No**

**If Key Decision, has 28-day notice been given? N/A**

In all the circumstances of the case, the public interest in maintaining the exemption outweighs the public interest in disclosing the information.

**Finance Officer Clearance** PC  
**Legal Officer Clearance** SB

**DIRECTOR'S SIGNATURE** 

To confirm that the Financial and Legal Implications have been considered and the Executive Member has cleared the report.