



**cenex**



**Lowering your emissions  
through innovation in transport  
and energy infrastructure**

# Coventry & Warwickshire Transport & Energy Hub

Trailblazer Concept Scoping  
Document

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Project Title

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# Contents

|       |                                      |                                     |
|-------|--------------------------------------|-------------------------------------|
| 1     | Section 1 - What.....                | 4                                   |
| 1.1   | Project Background.....              | 4                                   |
| 1.2   | Project Definition.....              | 4                                   |
| 1.3   | Objectives.....                      | 4                                   |
| 2     | Section 2 - Why.....                 | 7                                   |
| 2.1   | Benefits.....                        | 7                                   |
| 2.1.1 | Transport.....                       | 7                                   |
| 2.1.2 | Energy.....                          | 7                                   |
| 2.1.3 | Economy.....                         | 8                                   |
| 2.1.4 | Environment.....                     | 8                                   |
| 2.1.5 | Synergy.....                         | 9                                   |
| 2.2   | Strategic and Political Context..... | 9                                   |
| 2.2.1 | National Strategy and Policy.....    | 9                                   |
| 2.2.2 | Regional Strategy and Policy.....    | 10                                  |
| 2.2.3 | Local Strategy and Policy.....       | <b>Error! Bookmark not defined.</b> |
| 3     | Section 3 – How.....                 | 15                                  |
| 3.1   | Project Development Pathway.....     | 15                                  |
| 3.2   | Project Governance.....              | 16                                  |
| 4     | Section 4 – Who.....                 | 17                                  |
| 4.1   | Stakeholder map.....                 | 17                                  |
| 5     | Concept refinement.....              | 19                                  |

# 1 Section 1 - What

## 1.1 Project Background

Located North-East of Coventry City Centre, the Walsgrave Triangle is a key motorway interchange that links the East Midlands, West Midlands and the North by road; via the M69, M6 and M1 motorways. The Walsgrave Triangle is also a site of regional economic importance, being home to three industrial estates, home to dozens of large employers that span the manufacturing, logistics, retail and leisure industries.

To the east of the Walsgrave Triangle, a plot of greenbelt land bounded by the M6 to the north and Central Boulevard to the south (henceforth referred to as “The Site”) provides an ideal location for a combined low carbon energy and transport hub, named the City Linking Energy and Network Hub (CLEAN Hub), that will be comparable to Tyseley Energy Park in Birmingham.

The UK Government has set a legal commitment to achieve net-zero carbon emissions by 2050. Achieving this will require unprecedented changes to the way we travel and the way we generate and provide energy, necessitating large-scale, capital-intensive infrastructure development. This project intends to explore and exploit the potential for such a development at The Site.

The Site will be delivered alongside the development of a 20-40 MW solar energy farm and a grid-scale battery storage facility near Alderman’s Green. These developments are being led by Pivot Power and are essential to providing energy to The Site.

## 1.2 Project Definition

The project is defined as the acquisition and development of The Site to become a hub of innovative transport and energy technology, providing infrastructure and services that support the decarbonisation and growth of the local and regional economy, and support the UK’s national transition to net-zero by 2050. The proposed name for the hub is the City Linking Energy and Network Hub (CLEAN Hub).

## 1.3 Objectives

A multi-modal transport interchange and energy hub can have multiple infrastructure components and can serve to provide multiple different services. A list of the components and services that can potentially be provided at The Site are listed below, separated into the following categories:

- **Initiation:** Objectives upon which all other objectives are dependent, therefore to be achieved first
- **Short Term:** Objectives that will be achieved within two years
- **Medium Term:** Objectives that will be achieved in between two and five years
- **Long Term:** Objectives that will be achieved in over five years

| Initiation        |   |
|-------------------|---|
| Full Project Plan | A full project plan that includes detailed scope, budget, timescales and resourcing, and that attributes responsibility and accountability to specific roles. |
| Land acquisition  | Purchase by local authority of land encompassing The Site.  |
| Land development  | Initial development of site, including groundworks and electrical supply.   |

| <b>Short Term (under two years)</b>                 |   |
|---|---|
| Low-power electric vehicle charging infrastructure  | A dedicated number of parking bays for electric vehicles with AC fast charging units (up to 22 kW). These parking spots are for long-stay visitors who are transferring to another mode of transport.   |
| High-power electric vehicle charging infrastructure | A dedicated number of parking bays for electric vehicles with DC ultra-rapid charging units (up to 350 kW). With ultra-rapid charging, an electric vehicle is charged up to 500 miles in 30 minutes, which is ideal for the type of user that continues its trip shortly after charging the electric vehicle.   |
| Park and ride                                       | A long-stay car park allowing vehicle users to park and use other modes of transport to continue their journey, removing the need for them to drive into urban centres.   |
| Electric shuttle bus services                       | Electric buses operating services that conveniently connect the hub to nearby urban centres.  |
| On-site solar energy generation                     | Solar panels to supply energy to The Site when needed and sell energy to the grid when not needed.  |
| Maximised renewable energy supply                   | The Site will be directly linked to off-site solar energy and battery storage facilities, maximising the supply of renewable energy to the site.  |
| Small retail station (temporary)                    | Provision of retail and catering facilities on site to add convenience for site visitors, provide an additional revenue stream and potentially create jobs. In the short term, the retail space would be small and provide basic conveniences, with the intention that a larger retail facility – modelled on the Gloucester Services – is constructed in the medium term.    |
| Innovation Zone                                     | An area ringfenced for the development and demonstration of innovative technologies, such as wireless charging and autonomous vehicles. Equipped with a power supply sufficient to allow for the future transition to a wireless charging and autonomous vehicle hub. Designed to complement existing and planned innovation support, including the CW Green Innovation Park. |
| 5G network  | 5G network installed to future proof site for use by autonomous vehicles, which are likely to require the use of an ultra-fast wireless internet connection. The short-term benefit of deploying 5G at the site should be investigated.   |
| Parcel pick up                                      | A parcel pickup facility, complementing the consolidation centre.   |
| <b>Medium Term (two to five years)</b>              |   |
| On-site battery storage                             | Battery storage to maximise the use of renewable energy and allow The Site to provide grid services by, for example, storing electricity during periods of low demand and releasing it during periods of high demand. This would provide an additional revenue stream.  |
| Multi-fuel hub                                      | A multi-fuel hub to provide different types of fuelling options and charge possibilities for passing and parking vehicles. Fuels provided could include biomethane, LPG, CNG and hydrogen.  |
| Electric bus charge park                            | Ultra-rapid (up to 350 kW) charging infrastructure dedicated for use by electric buses. This infrastructure could be a conventional plug  |

|  |   |
|--|---|
|  | and socket or possibly a more innovative pantograph system, which can charge a bus automatically using overhead charging equipment that connects to a receiver mounted on the roof of the bus.  |
| Consolidation centre (last mile delivery)      | A consolidation centre to improve last-mile logistics across Coventry and Warwickshire, by ensuring vehicles are loaded and scheduled as efficiently as possible. The centre could also facilitate charging for electric last-mile delivery vehicles. The feasibility of delivering and operating such a centre should be explored in more detail.  |
| Large retail station                           | A large retail facility, modelled on the Gloucester Services, that replaces or complements the small retail facility already operating on the site. Constructed using sustainable materials and methods (such as green roofs and timber framework), providing retail and catering spaces supplied and operated by local producers and employees. Creating potentially hundreds of jobs, adding value to the local economy and forming a stand-alone attraction to encourage individuals to visit the CLEAN Hub. |
| Wind energy generation                         | Small scale wind turbines deployed to supply electricity for building use (e.g. onsite retail spaces and/or consolidation centre). A cost-benefit analysis of deploying such technology should be conducted.  |
| Hydrogen fuel production                       | Using renewable electricity to convert water into hydrogen can add additional energy storage capacity and reduce logistics costs associated with transporting hydrogen to the site. An analysis should be undertaken to determine the value that this would add.  |
| Park and bike (e-scooter and/or e-bike rental) | A dedicated location where electric bikes and scooters can be charged whilst being made available for short-term rent by visitors to the site. The benefit of providing this service would need to be explored, owing to the suburban nature of The Site.   |
| Flying goods vehicles (drones)                 | Automated, goods delivery drones are already used by some UK businesses and could be deployed to support last-mile delivery from the freight consolidation centre. Issues around cost-benefit and the use of airspace would need to be explored.  |
| <b>Long Term (over five years)</b>             |   |
| Very Light Rail (VLR)                          | A VLR station to provide an alternative means of travel to urban centres across the Midlands. The feasibility and benefits of such a station on this site should be explored in detail.   |
| Static wireless charging bays                  | Static wireless charging is an enabler of autonomous vehicles and could be installed in the innovation zone. In the first instance, this should be done in support of specific wireless charging and/or autonomous vehicle demonstrator projects.   |
| Connected and Autonomous Vehicle Hub           | A dedicated area for pick-up, drop-off and recharging of connected and autonomous vehicles.   |

## 2 Section 2 - Why

### 2.1 Benefits

The benefits of developing the CLEAN Hub on The Site would have several benefits. The most significant of these benefits fall into one or more of the following categories:



#### Transport

- Improving the transit of people and goods, locally and regionally



#### Energy

- Supporting the grid and maximising usage of low-cost, renewable energy sources



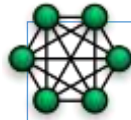
#### Economy

- Strengthening the economy of Coventry, Warwickshire and the Midlands



#### Environment

- Reducing carbon emissions and improving air quality



#### Synergy

- Additional benefits unlocked by through co-location of complementary infrastructure and services

#### 2.1.1 Transport

- Locating a park-and-ride near to a busy motorway interchange will lead to a reduction in traffic entering the centre of Coventry
- Providing high-power EV charging infrastructure – capable of providing 100 miles of charge in under 10 minutes – will make electric vehicle ownership a feasible and attractive prospect for more residents and businesses
- Providing a large quantity of EV charging infrastructure will provide residents without off-street parking with a reliable means to refuel an electric vehicle, reducing the inequity between those with and those without off-street parking
- A freight consolidation centre will reduce the number of miles driven by last-mile logistics vehicles in the urban centres of Coventry and Warwickshire
- Including hydrogen refuelling infrastructure onsite would provide Coventry's first public hydrogen refuelling station, and only the second in the whole of the Midlands.
- The Site is located centrally within the Midlands and the UK as a whole, maximising the amenity and potential usage of refuelling infrastructure on site

#### 2.1.2 Energy

- Providing a direct connection to nearby solar power installations, The Site will be able to operate entirely on locally generated 100% renewable energy
- Direct connection to local energy generation increases resilience to grid disruption and blackouts

## Project Title

- Small-scale wind energy can be used to power on-site buildings and facilities, further reducing need to draw electricity from the grid
- Large-scale battery storage equipment can help to balance the grid, by absorbing electricity during periods of low demand and releasing it during periods of higher demand
- Battery storage will maximise the amount of usable, renewable electricity that can be provided
- When the electricity is not required by the hub, it can be returned to the grid, generating revenue in the process
- Were hydrogen to be generated onsite, it could provide further energy storage capacity for when battery storage is full capacity – any hydrogen generated using locally supplied renewable energy would be 100% zero-carbon

### 2.1.3 *Economy*

- The site would have multiple revenue generating opportunities, spanning vehicle refuelling, electricity grid services and retail
- By offering bus connections from The Site, travellers can easily visit the urban centres of Coventry and Warwickshire as part of a journey North/South on the M1 or East/West on the M6 and M69
- The installation and maintenance of The Site will create long-term, skilled employment opportunities
- Visitors recharging an EV are a captive market offering opportunities for retail, leisure and catering businesses located nearby, including those at the Walsgrave Triangle and Cross Point retail parks
- Providing retail and leisure facilities on site will create long-term employment opportunities
- Being located near to two industrial estates, the hub will open possibilities for businesses to use electric vehicles within their fleet, thereby unlocking ongoing operating costs savings, which can be invested to support the growth of the businesses
- The provision of reliable, high-power EV charging infrastructure will make The Site an ideal location for inward investment from organisations who operate or plan to operate electric vehicles within their fleets
- The hub would enhance the international reputation of Coventry and the Midlands for innovation in transport industries
- By removing the need to drive and park in Coventry city centre, boroughs and towns in Warwickshire, commuting from the East Midlands to Coventry (along the M69) is potentially made more attractive
- The site would be the first of its kind in the UK, which would attract attention from individuals and organisations with political and economic influence, both nationally and internationally
- The Site would be unsuitable for housing development, owing to its proximity to the M6 and other high-flow strategic road links, and therefore would not conflict with demand for housing
- The suburban nature of The Site would minimise disruption caused by the development

### 2.1.4 *Environment*

- An additional park-and-ride will improve urban air quality by removing traffic from Coventry city centre towns in Warwickshire
- Supporting and encouraging the use of electric vehicles will reduce carbon emissions and improve urban air quality



## Project Title

- Renewable energy generation will minimise additional carbon emissions from The Site, and also contribute to reducing the carbon intensity of the UK electricity grid

### 2.1.5 Synergy

- Co-locating high-power EV charging infrastructure with a freight consolidation centre will support the use of electric last-mile delivery vehicles.
- Combining solar power generation and battery storage will maximise the amount of usable, renewable electricity that can be provided
- A combination of hydrogen refuelling and electric vehicle recharging infrastructure would offer the potential to use both hydrogen and electric buses across Coventry and parts of Warwickshire
- Co-locating EV charging infrastructure with park-and-ride bus services may attract additional tourism to Coventry and Warwickshire
- The combination of renewable energy generation, storage and usage onsite will reduce operating costs and maximise net revenue
- Integrating the various elements of The Site into one development will reduce capital costs associated with in one site will reduce
- A single, large-scale, multi-use development will be more visible to the public than several, more disparate developments, thereby inspiring greater confidence
- By clustering infrastructure into one, large site, ongoing repair and maintenance is more cost-effective
- Developing one, large-scale site removes much of the uncertainty around connection to the grid and available grid capacity, as a dedicated, high-power electrical connection will form part of the development

## 2.2 Strategic and Political Context

The development of the CLEAN Hub at The Site will contribute to realising policy goals at a local, regional and national level. This section will identify specific political and strategic objectives to which the CLEAN Hub is aligned.

### 2.2.1 Local Strategy and Policy

#### **Coventry City Council Climate Change Strategy, 2012<sup>1</sup> (under review)**

- Reduce carbon emissions by 34% by 2020, compared to 1990 baseline
- Increase city GDP by £1.9bn compared to 2010
- Create 26,000 low carbon jobs

#### **Rugby Borough Council Local Plan 2011-2031, 2019<sup>2</sup>**

- Expect developments to be designed in accordance with the following hierarchy:
  - Reduce energy demand through energy efficiency measures; then
  - Supply energy through efficient means (i.e. low carbon technologies); then
  - Utilise renewable energy generation

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<sup>1</sup> [Coventry City Council Climate Change Strategy, 2012](#)

<sup>2</sup> [Rugby Borough Council, Local Plan 2011-2031, 2019](#)

## Project Title

- Policy SDC8: Proposal for new low carbon and renewable energy technologies (including associated infrastructure) will be supported in principle

### **Coventry City Council Local Plan, 2017<sup>3</sup>**

- Policy AC1: Development proposals which are expected to generate additional trips on the transport network should:
  - Integrate with existing transport networks
  - Support the delivery of new and improve high quality local transport networks
  - Actively support the provision and integration of emerging and future intelligent mobility infrastructure, including electric vehicle charging points, car club schemes and bicycle hire
  - Policy EM3: Proposals for the installation of renewable low carbon energy technologies, including both building-integrated and standalone schemes will be promoted and encouraged

### **2.2.2 Regional Strategy and Policy**

### **West Midlands Local Industrial Strategy, 2019<sup>4</sup>**

- Making the West Midlands a UK hub for battery research, development and manufacturing
- Delivering the highest EV and connected & autonomous vehicle (CAV) adoption across the UK
- Making the region the national centre for connected & autonomous vehicles, electric motor manufacture and supply chains for the full range of EVs

### **Regional Energy Strategy for the West Midlands, 2018<sup>5</sup>**

- Reducing energy costs for our strategic industrial sectors to at least match those of international competitors
- Reducing the incidence of fuel poverty across our region
- Delivering the West Midlands' share of the national and global carbon budgets by reducing regional carbon emissions
- Creating a regional energy infrastructure that adds £1bn to GVA by 2025 by putting the region at the leading edge of the global energy and transport systems transition
- Delivering against key objectives through highly selective investment of public and private capital, working through a framework of Energy Innovation Zones (EIZs)
- Energy Innovation Zones to create local partnerships which bring together the right stakeholder for each locality and are collectively able to manage energy investment risk

### **Midlands Connect Strategy: Powering the Midlands Engine, 2017<sup>6</sup>**

- Establishes spatial framework for investment based on four strategic economic hubs and six intensive growth corridors

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<sup>3</sup> [Coventry City Council Local Plan, 2017](#)

<sup>4</sup> [West Midlands Local Industrial Strategy, 2019](#)

<sup>5</sup> [Regional Energy Strategy for the West Midlands, 2018](#)

<sup>6</sup> [Midlands Connect Strategy: Powering the Midlands Engine, 2017](#)

## Project Title

- The Site is located within the *Leicester and Coventry* Strategic Economic Hub
- The Site is located along the *Birmingham – Coventry/Leicester* and *Nottingham – Leicester – Coventry* Intensive Growth Corridors
- Focus on investment in transport research, technology, infrastructure and services that will enable a more effective use of the region's road and rail networks
- Enhance user experience by
  - Utilising the technology we have to make the most of our current networks;
  - Enhancing connectivity, leading to less time wasted and more productive journeys: and
  - Decreasing road journey times through reducing road congestion and making public transport a more attractive mobility option

### ***Midlands Connect, Alternative Fuels for Freight and Logistics, 2019 (unpublished)***

- The Site would contribute to three of the four vision statements proposed to Midlands Connect:
  - Midlands is a knowledge hub for alternative fuels research and business information. A cooperation between academia, industry and policy makers on the future of alternative fuels provides evidence, proven solutions and case studies for the industry to implement.
  - Midlands road network is equipped with charging/refuelling infrastructure enabling freight and logistics businesses to efficiently plan the operations of their alternatively fuelled fleets.
  - Midlands is a test bed for innovation projects and technologies on alternatively fuelled vehicles and charging/refuelling infrastructure solutions.
- Additionally, The Site would support the private sector to realise the fourth vision statement:
  - Midlands freight and logistics businesses in the region lead in adoption of alternative fuels. They have sufficient knowledge, support and incentives to minimise risks related to switching to alternative fuels.

### ***West Midlands Combined Authority, Electric Vehicle Charging and Enabling Energy Infrastructure: A West Midlands Approach, 2020 (unpublished)***

- WMCA to continue to share knowledge and build a more granular evidence base supporting targeted EV charging infrastructure investment
  - To evolve the West Midlands EV Working Group into a regional steering group which shares learning and inputs information on activity led by local authorities and LEPs to facilitate the identification of gaps in EV charging provision.
  - Energy Capital and TfWM to further consider and share the final results of consultancy report delivered by Cenex, to gain a clearer picture of provision and demand across the region.
  - Energy Capital to collaborate with National Grid and Highways England to consider the impacts of current studies being undertaken on EV charging provision on the strategic road network
  - Energy Capital to assess the increased demand on the region's low-voltage networks in Coventry, Rugeley and Sandwell resulting from increased EV charging provision, and work with Western Power Distribution and National Grid on addressing this at a strategic level
- WMCA to agree a regional delivery plan for EV charging infrastructure

## Project Title

- TfWM, WMCA and the EV Steering Group to consider what support each Constituent Member would benefit from and agree a co-ordinated delivery plan, including agreement on a joint approach to procurement of services requested by Constituent Members
- WMCA's Investment Director to develop a more detailed investment case for investing in an infrastructure spine of EV charging stations across the WMCA area and any other gaps in provision identified, where there is regional benefit in doing so and this supplements local provision
- Energy Capital to undertake a strategic assessment of the potential impact of increased demand on the network across the region, in partnership with Western Power Distribution and Cadent
- WMCA to secure investment for specific opportunities
  - Secure investment and establish delivery mechanisms for identified opportunities as appropriate

### ***#WM2041, Actions to Meet the Climate Crisis with Inclusivity, Prosperity and Fairness, 2020<sup>7</sup>***

- West Midlands region to be net zero carbon by 2041
- Promote active travel and cleaner transport
- Provide infrastructure to support the transition to electric vehicle charging
- Investing to support re-skilling and employment in clean technology industries
- Incentivising business innovation to meet clean growth challenges
- Pursuing energy devolution
- Supported by around £40bn investment between 2020 and 2041.

### **2.2.3 National Strategy and Policy**

### ***Decarbonising Transport: Setting the Challenge, Department for Transport 2019<sup>8</sup>***

- Accelerating modal shift to public and active transport
  - Help make public transport and active travel the natural first choice for daily activities
  - Support fewer car trips through a coherent, convenient and cost-effective public network; and explore how we might use cars differently in future
  - Explore how to best support the behaviour change required
- Decarbonisation of road vehicles
  - Support the transition to zero emission road vehicles through:
    - Refuelling and recharging infrastructure
    - Energy system readiness
  - Maximise benefits through investment in innovative technology development, and development of sustainable supply chains
- Decarbonising how we get our goods

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<sup>7</sup> [#WM2041, Actions to Meet the Climate Crisis with Inclusivity, Prosperity and Fairness, 2020](#)

<sup>8</sup> [Decarbonising Transport: Setting the Challenge, 2019](#)

## Project Title

- Transform 'last-mile' deliveries – developing an integrated, clean and sustainable delivery system
- Optimise logistics efficiency and explore innovative digitally-enabled solutions, data sharing and collaborative platforms
- Place-based solutions
  - Address emissions at a local level, through local management of transport solutions
  - Target support for local areas, considering regional diversity and different solutions

### ***The Road to Zero, Depart for Transport 2018<sup>9</sup>***

- Reduce emissions from vehicles already on our roads
  - Increasing the supply and sustainability of low carbon fuels in the UK
- Drive uptake of the cleanest new vehicles
- Reduce emissions from heavy goods vehicles and road freight
- Support the development of one of the best electric vehicle infrastructure networks in the world
- Put the UK at the forefront of the design and manufacturing of zero emission vehicles
- Support local action

### ***The Climate Change Act 2008<sup>10</sup> (amended 2019)***

- Ensure the UK carbon account for the year 2050 is 100% lower than the 1990 baseline (i.e. net zero by 2050)

### ***Clean Air Strategy, 2019<sup>11</sup>***

- Taking action to reduce pollutant emissions from road transport, including passenger and freight vehicles

### ***UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations, 2017<sup>12</sup>***

- Be the first generation to leave the environment in a better state than we inherited it
- Delivering cleaner air in the shortest time possible
- Local action is needed to achieve improvements in air quality
- Local authorities should consider a wide range of innovative options, exploring new technologies and seeking to support the Government's industrial strategy

### ***National Planning Policy Framework, 2019<sup>13</sup>***

- The planning system has an overarching objective to contribute to the movement towards a low carbon economy

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<sup>9</sup> [The Road to Zero, 2018](#)

<sup>10</sup> [The Climate Change Act 2008](#)

<sup>11</sup> [Clear Air Strategy, 2019](#)

<sup>12</sup> [UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations, 2017](#)

<sup>13</sup> [National Planning Policy Framework, 2019](#)

## Project Title

- To help increase the use and supply of renewable and low carbon energy and heat, plans should:
  - Provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily;
  - Consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and
  - Identify opportunity for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems
- When determining planning applications for renewable and low carbon development, local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions
- When located in the Green Belt, developers will need to demonstrate very special circumstances if projects are to proceed, such as increased production of energy from renewable sources.

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### 3 Section 3 – How

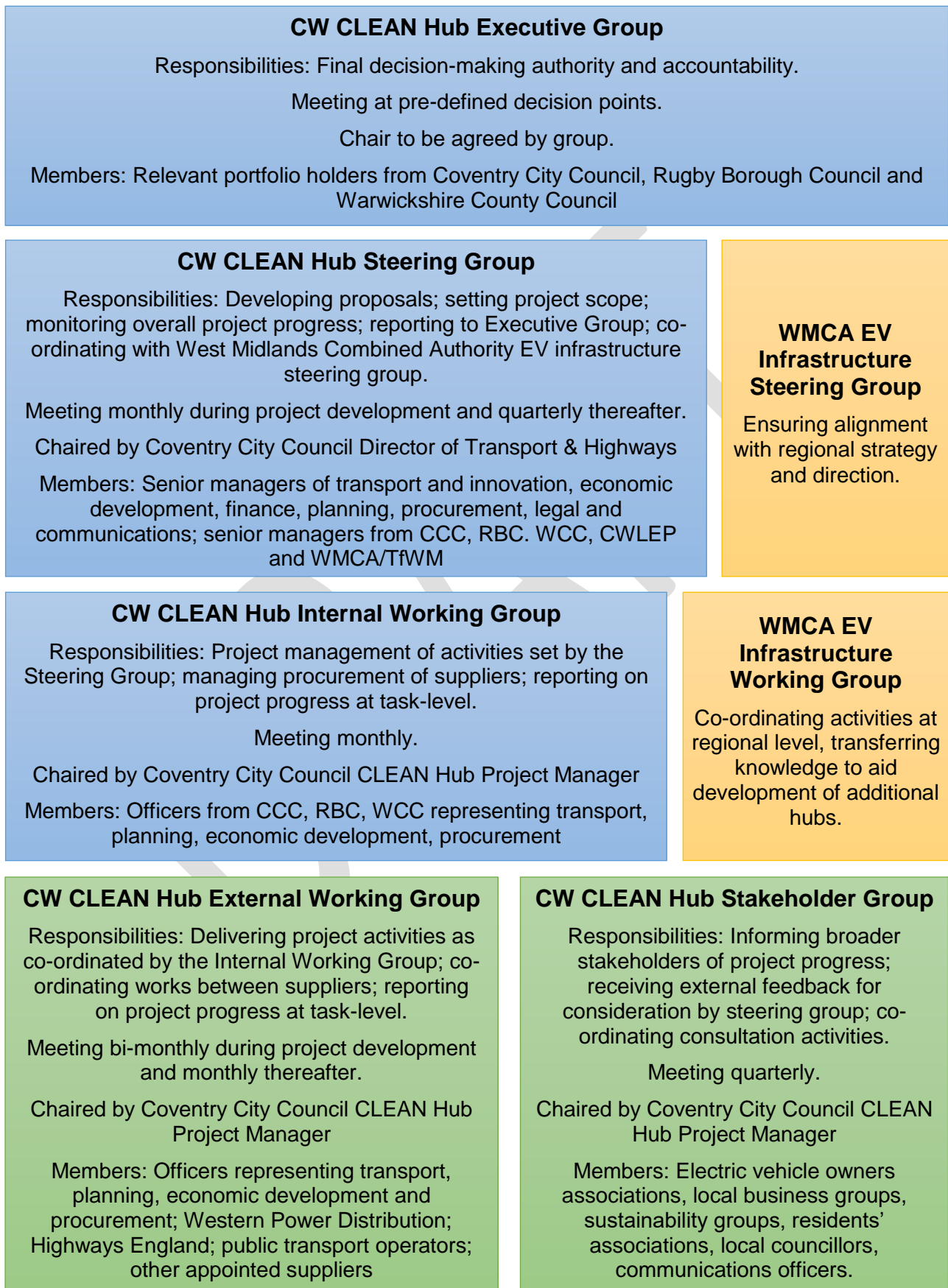
#### 3.1 Project Development Pathway

The following high-level timeline is proposed for the delivery of the CLEAN Hub.



### 3.2 Project Governance

The development and delivery of a transport and energy hub at The Site will require a multi-level project governance structure. A recommended structure is shown below. Internal (public sector only) groups are shown in blue, external groups in green and associated WMCA groups in orange.





## 4 Section 4 – Who

### 4.1 Stakeholder map

A list of key stakeholders who should be in some way involved in the development, delivery and ongoing expansion of The Site are shown in the table below. Each stakeholder is attributed a role for each of the ten project development stages, as discussed in section 3.

Project development stages are described in the RASCI frame. These letters denote the following roles:

- R: Responsible – The stakeholders with responsibility to manage the project development stage, either in whole or in part
- A: Accountable – The stakeholder with the final accountability and decision-making authority for the project development stage
- S: Supporting – Stakeholders providing support in the delivery of the project development stage
- C: Consulted – Stakeholders consulted to provide input required within the project development stage
- I: Informed – Stakeholders who are informed as part of the project development stage, but not required to provide input

| Organisation          | Position                                   | Project Development Stage |   |        |   |        |   |        |   |   |    |
|-----------------------|--|---------------------------|---|--------|---|--------|---|--------|---|---|----|
|                       |  | 1                         | 2 | 3      | 4 | 5      | 6 | 7      | 8 | 9 | 10 |
| Coventry City Council | Project Manager                            | R                         | R | R<br>S | R | R<br>S | R | R<br>S | R | R | R  |
| Coventry City Council | Transport Innovation Manager               | A                         | A | A<br>C | A | A<br>C | R | A<br>S | A | R | A  |
| Coventry City Council | Communications Manager                     |                           |   |        |   |        | I | I      | I | S | I  |
| Coventry City Council | Inward Investment Manager                  |                           | C |        | I |        | C | S      | S | I | S  |
| Coventry City Council | Finance Director                           |                           |   |        | I | C      | I | S      | S | C | I  |
| Coventry City Council | Director of Property                       |                           |   |        | I | C      | I | C      | C | I | C  |
| Coventry City Council | Director of Business, Investment & Culture |                           | I |        | C |        | C | C      | C | I | C  |
| Coventry City Council | Programme Development Manager              |                           | C |        | I |        | I | S      | I | S | S  |
| Coventry City Council | Head of Economic Growth                    |                           | C |        | C |        | C | C      |   | I | C  |
| Coventry City Council | Head of Climate Change & Sustainability    |                           | C |        | C |        | C | S      | S | C | C  |
| Coventry City Council | Planning Team Manager                      |                           | C | C      |   |        | I |        | S |   | C  |
| Coventry City Council | Development Control Manager                |                           | C | C      |   |        | I |        |   |   | C  |
| Coventry City Council | Portfolio Holder, City Services            |                           | I |        | C |        | A | I      | I | I | C  |
| Coventry City Council | Portfolio Holder, Jobs & Regeneration      |                           | I |        | C |        | C |        |   | I | I  |

Project Title

| Organisation   | Position                                   | Project Development Stage |   |   |   |   |   |   |   |   |    |
|--|--|---------------------------|---|---|---|---|---|---|---|---|----|
|  |  | 1                         | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Coventry City Council                                | Portfolio Holder, Public Health            |                           | I |   | C |   | C |   |   | I | I  |
| Coventry City Council                                | Procurement Manager                        |                           |   |   |   |   |   |   | S |   | S  |
| Coventry City Council                                | Contract Manager                           |                           |   |   |   |   |   |   |   | S | S  |
| Coventry City Council                                | Utilities Manager                          |                           |   |   | I |   | C |   | S | S | S  |
| Coventry City Council                                | Director of Transport and Highways         |                           | I |   | C |   | C | C | I | I | C  |
| Transport for West Midlands                          | Future Mobility Lead                       |                           | C |   | C |   | C | S |   | C | C  |
| Transport for West Midlands                          | Transport Strategy Director                |                           | I |   | C |   | C | C |   | I | C  |
| Transport for West Midlands                          | Head of Network Delivery                   |                           | C |   | C |   | C | S | C | C | C  |
| University of Birmingham                             | Regional Energy Systems Lead, RESO Project |                           | C | C | C |   | I | C | C | I | C  |
| University of Birmingham                             | Regional Energy Systems, RESO Project      |                           | C | C | C |   | I | C | C | I | C  |
| Warwickshire County Council                          | Fosse Ward County Councillor               |                           | I |   | C |   | C |   | C | I | C  |
| Warwickshire County Council                          | Team Leader, Transport Planning            |                           | C | C | C |   | I |   | S | I | C  |
| Warwickshire County Council                          | Team Leader, Transport Planning            |                           | C | C | C |   | I | I | S | C | C  |
| Rugby Borough Council                                | Head of Growth and Investments             |                           | C |   | C |   | C | S | S | I | C  |
| Rugby Borough Council                                | Principle Planning Policy Officer          |                           | C | C | C |   | I |   | S | I | C  |
| Rugby Borough Council                                | Revel & Binley Woods Ward Councillor       |                           | I |   | C |   | C |   | C | I | C  |
| West Midlands Combined Authority                     | Director, Energy Capital                   | I                         | I | C | C |   | C |   | I | I | I  |
| West Midlands Combined Authority                     | EV Infrastructure Lead, Energy Capital     | C                         | C | C | C |   | C |   | C | S | C  |
| Birmingham City Council                              | Project Manager                            |                           | I |   | I |   |   |   |   | I | I  |
| Midlands Connect                                     |  |                           | C | C | C |   | I | I | S | C | C  |
| Midlands Energy Hub                                  | Regional Energy Projects Manager           | I                         | C | C | C |   | I | S | I | I | I  |
| Cenex  | Infrastructure Strategy Specialist         | S                         | I | S | I | S | I | S | S |   | S  |
| Coventry & Warwickshire Local Enterprise Partnership |  |                           | I | C | C |   | C | S | I | I | C  |
| Western Power Distribution                           | Project Manager                            |                           |   | C | I | C | I |   |   | S | C  |
| National Grid  |  |                           |   |   | I |   |   |   |   | I | I  |

## 5 Concept Refinement

An infographic that visually summarises the objectives and benefits of developing a transport and energy hub at The Site is shown on the following page. The summary content shown on this page has been developed to accompany the infographic.

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### **Coventry & Warwickshire City Linking Energy & Network Hub (CLEAN Hub)**

*To achieve the West Midlands' goal of becoming net-zero by 2041, the region's transport and energy systems must undergo significant change. This change can be supported by developing large-scale combined transport and energy hubs in strategic locations.*

On the border between Rugby and Coventry, **the greenbelt land between the M6 and Central Boulevard presents an ideal location for a transport and energy hub.** With its proximity to the Walsgrave Triangle interchange – linking the M69, M6 and A46 – **millions of motorists pass near to the site every year.**

The proposed name for this hub is the **City Linking Energy and Network Hub (CLEAN Hub).** It will **provide a place to quickly recharge electric vehicles,** offering park-and-ride bus connections allowing tourists and commuters to **travel to Coventry without contributing to urban road traffic.** In the future, these public transport connections will be served by **electric buses** and ultimately **very light rail (VLR).**

The suburban location of the site provides enough space to **host solar panels and small-scale wind turbines,** which can generate zero-carbon electricity. This would be supported by **an installation of batteries to store renewable energy,** ensuring it is available when needed.

In the future, the CLEAN Hub will **host a freight consolidation centre,** adding efficiency to last-mile logistics across Coventry and Warwickshire. As technology develops, the site will also be an **ideal hub for autonomous passenger and goods vehicles.**

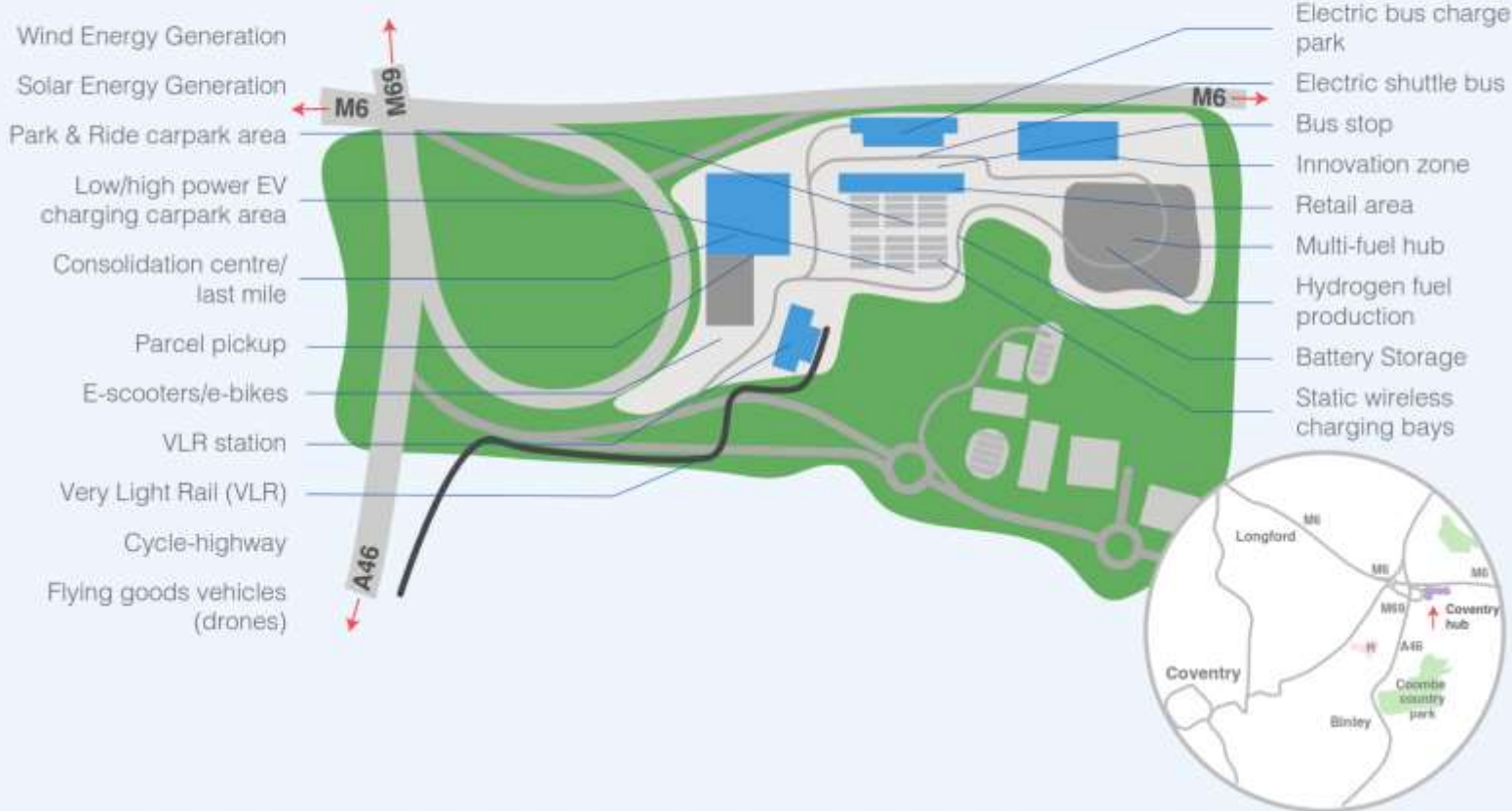
*Developing the CLEAN Hub near the Walsgrave Triangle will have benefits for transport, energy, economy and environment.*

- Providing park-and-ride public transport connections will reduce carbon emissions and improve urban air quality.
- Electric vehicle recharging infrastructure will support and encourage the transition to zero-emission vehicles, whilst also generating revenue.
- Generating and storing renewable energy will increase green energy use and generate revenue by supporting the grid during periods of high demand.
- Site construction and operation will create long-term, high-value jobs.
- The development will enhance the local and regional reputation for transport and energy innovation, attracting inward investment from businesses in the low-carbon economy.

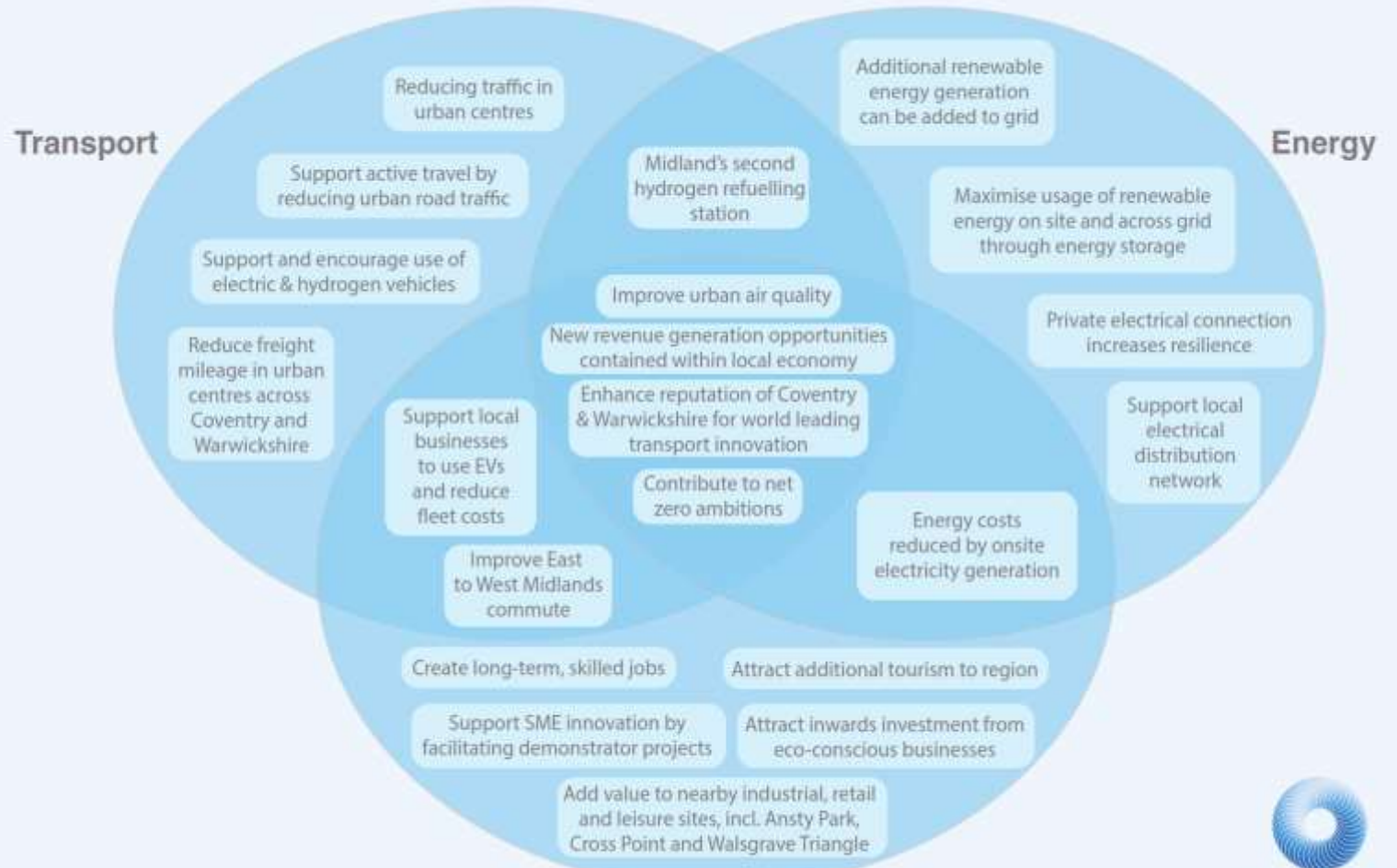
*The concept for the CLEAN Hub has been developed and, subject to approval, will be refined into a strategic case.*

The development of a full business case for the CLEAN Hub will gather input from stakeholders across the public and private sector, including Rugby Borough Council, Coventry City Council, Warwickshire County Council, the Coventry & Warwickshire Local Enterprise Partnership, the West Midlands Combined Authority, Midlands Connect and Midlands Energy Hub.

# Coventry & Warwickshire City Linking Energy and Network Hub (CLEAN Hub)



## Benefits





# **cenex**

**Lowering your emissions  
through innovation in transport  
and energy infrastructure**



**Transport**



**Energy  
Infrastructure**



**Knowledge  
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**LinkedIn: [Cenex](https://www.linkedin.com/company/cenex)**