GMCA GREATER MANCHESTER COMBINED AUTHORITY

Greater Manchester Combined Authority

Date: Friday 13th December 2024

Subject: TfGM Power Purchase Agreement

Report of: Andy Burnham, Mayor of Greater Manchester, Portfolio Lead for Transport and Caroline Simpson, Group Chief Executive, GMCA

Purpose of Report

To provide GMCA with an update on the status of the TfGM Power Purchase Agreement (PPA) project.

Recommendations:

The GMCA is requested to:

1. Note TfGM are progressing work on the procurement of a Power Purchase Agreement (PPA) under a programme to address current and future energy demand;
2. Note that the TfGM PPA will function as a pathfinder for future PPAs to encompass the wider GMCA Group and potentially other GM partners;
3. Note the proposed procurement approach for the TfGM Power Purchase Agreement (PPA) project; and
4. Note that a further report will be presented to GMCA in Summer 2025, prior to entering into a PPA.

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Equalities Impact, Carbon and Sustainability Assessment:

Recommendation - Key points for decision-makers

1. Note the contents of the report,
2. Note the proposed procurement approach for a PPA; and
3. Note that a paper will be presented to GMCA in Spring Summer 2025 for approval, prior to entering into a PPA.

Summary of Decision Tool results: Positive impacts overall, whether long or short-term and significant.

Impacts Questionnaire

Impact Indicator	Result	Justification/Mitigation
Equality and Inclusion		
Health		
Resilience and Adaptation		
Housing		
Economy		
Mobility and Connectivity		
Carbon, Nature and Environment	G	Provision of additional renewable energy to the grid supporting TfGM's key strategy to decarbonise transport by switching to electric vehicles, and GM's overall target to become carbon neutral by 2038.
Consumption and Production		

Contribution to achieving the GM Carbon Neutral 2038 target	Provision of additional renewable energy to the grid supporting TfGM's key strategy to decarbonise transport by switching to electric vehicles, and GM's overall target to become carbon neutral by 2038.

Further Assessment(s): N/A

G	**Positive impacts overall, whether long or short term.**	A	**Mix of positive and negative impacts. Trade-offs to consider.**	R	**Mostly negative, with at least one positive aspect. Trade-offs to consider.**	RR	**Negative impacts overall.**

Carbon Assessment

Overall Score

Buildings	Result	Justification/Mitigation
New Build residential	N/A	
Residential building(s) renovation/maintenance	N/A	
New build non-residential (including public) buildings	N/A	
Transport		
Active travel and public transport	N/A	
Roads, Parking and Vehicle Access	N/A	
Access to amenities	N/A	
Vehicle procurement	N/A	
Land Use		
Land use	N/A	

	No associated carbon impacts expected.		High standard in terms of practice and awareness on carbon.		Mostly best practice with a good level of awareness on carbon.		Partially meets best practice/ awareness, significant room to improve.		Not best practice and/ or insufficient awareness of carbon impacts.

Risk Management

See Section 4.

Legal Considerations

TfGM must ensure that the actions they take are within their powers (intra vires). DLA Piper have provided advice to TfGM and GMCA confirming that to enter into a virtual PPA (which is essentially a financial instrument) would be *intra vires* under TfGM's functional power of competence, set out in section 10A of the Transport Act 1968. Any exercise of powers would also need to comply with TfGM's general duties in respect of proper administration of their financial affairs which will be considered prior to entry into a PPA.

TfGM is intending to enter into a long term (15-20 year) PPA, which will be negotiated during the procurement process. The final terms of the PPA will be presented to the GMCA for approval prior to entering into contract.

Financial Consequences – Revenue

Assuming an annual volume of 45,000MWh of electricity and an unindexed 'strike price' of £85/MWh, a PPA will have an annual cost of circa £3.8m per annum over an estimated term of at least 15 years, which at current market prices will provide a lower unit cost than TfGM's current approach to energy purchasing.

Financial Consequences – Capital

No Capital will be expended on securing the Power Purchase Agreement

Number of attachments to the report: 0

Comments/recommendations from Overview & Scrutiny Committee

N/A

Background Papers

N/A

Tracking/ Process

Does this report relate to a major strategic decision, as set out in the GMCA Constitution?

No

Exemption from call in

Are there any aspects in this report which means it should be considered to be exempt from call in by the relevant Scrutiny Committee on the grounds of urgency?

No

Bee Network Committee

N/A

Overview and Scrutiny Committee

N/A

1. Introduction

1.1. Greater Manchester's 5 Year Environment Plan sets a vision for a nature-rich and carbon neutral city region where all citizens have access to affordable renewable energy, warm climate resilient homes, high quality blue and green spaces, healthy and locally produced food, and a reliable, integrated, inclusive, sustainable and affordable transport system, where avoidable waste is significantly reduced.

1.2. It sets out that in Greater Manchester, we want to create a 'Manchester-Energy Model', a low carbon energy system, that other places will aspire towards, and which will meet our target of being carbon neutral by 2038. Reaching this target remains challenging and will require accelerated and scaled up action across all aspects of society - residents, public and private sector organisations and, importantly, national government.

1.3. Such a system will be based around the three pillars of energy efficiency, energy generation and smart energy innovation:

- Energy Efficiency - Where our homes and buildings are improved to use as little energy as possible, using the most efficient insulation and cost-effective, low carbon appliances and heating systems.
- Energy Generation - Where our homes, businesses and transport are all powered through affordable renewable energy, built all over Greater Manchester, including local heat networks, onshore wind and solar panels on roofs, to reduce transmission losses and give people more control over their energy bills.
- Smart Innovation - Where this is all integrated by embracing the latest developments in technology and energy innovation to allow people to smartly store and control their energy use, adapting to their individual requirements and benefiting financially from being able to manage when they buy, sell and use energy.

1.4. Aim 1 of our 5 Year Environment Plan is that "Our energy infrastructure is smart, flexible, and fit for a low carbon future."

1.5. In anticipation of an increase in electricity demand for public transport, and in recognition of the aims of the 5 Year Environment plan TfGM are progressing work on the procurement of a Power Purchase Agreement (PPA). The proposal is for TfGM to enter into an initial PPA of c 45,000MWh (broadly equivalent to Metrolink's annual

electricity consumption) as a 'pathfinder', enabling future PPAs to address future demand growth from an electrified bus fleet; and to encompass other partner organisations within the GMCA Group and beyond within the broad GM family.

1.6. A Power Purchase Agreement (PPA) is a long-term contract (typically 15-20 years) between a corporate electricity consumer and a generator of renewable energy, with the consumer's payment to the generator contributing to the cost of constructing and operating the generator asset. PPAs enable buyers to reduce their greenhouse gas emissions and meet their sustainability targets by sourcing clean energy at a competitive price.

1.7. The benefits of PPAs are as follows:

i) **Net Zero / Social Value** – a PPA demonstrates a commitment to sustainability by contributing to the decarbonisation of the energy system.

ii) **Price Certainty –** PPAs provide long term price certainty, protecting against market volatility.

iii) **Additional Renewable Capacity (Additionality) –** PPAs provide much needed renewable power to the grid. By signing a PPA with a developer / generator , the consumer has committed to provide a stable revenue stream to the project over a long period of time

1.8. TfGM currently procures energy utilising a flexible strategy via traditional retail arrangements, meaning volumes are hedged / fixed for different seasonal periods. However, TfGM's annual electricity consumption is estimated to grow from c58,000MWh in 2024 to c214,000MWh by 2036, primarily due to the introduction of zero emission vehicles across franchised bus services to meet the ambition of a 100% ZEB fleet by the early 2030s which, at today's prices, represents an annualised increase in costs from c£14.5m to c£53.5m[1].

1.9. This, allied with ongoing volatility within the market, results in TfGM needing to take action to mitigate cost as far as possible, whilst also providing price certainty and stability. A review of the energy purchasing strategy / implementing a PPA was a key mitigation within the Financial Sustainability Plan submitted to Department for

[1] day-ahead commodity price of c £100/MWh as of 19 November 2024 and taking into account non-commodity costs of circa £150/MWh made up of government levies and charges

Transport as part of the Covid / post Covid funding agreements; and is also a key component in TfGM's Business Plan.

2. Procurement Process

2.1. Following initial work, supported by external advisors, to assess the viability of a PPA, TfGM moved onto the Procurement phase which commenced with the issuance of a Prior Information Notice (PIN) to the market in June 2024, followed by a virtual supplier day for those who expressed interest in the opportunity.

2.2. Market sounding was then undertaken, the objective of which was to test the market on potential offerings and to understand market conditions to help inform a competitive tendering process.

2.3. As a result, TfGM will be seeking proposals which offer a technology agnostic (i.e. solar or wind) new-build virtual PPA with an output of 35,000 – 45,000 MWh per annum, for a term of 15-20 years. A virtual PPA is effectively a 'contracts for difference' arrangement whereby TfGM continues to procure energy on a day-ahead basis by way of a traditional purchasing arrangement, with a reconciliation directly with the generator back to the guaranteed price under the PPA.

2.4. It is currently anticipated that the PPA would become live by 31 December 2027, as the renewable facility will need to be built, albeit an earlier commencement date will be sought if such developments are available.

2.5. The procurement will be undertaken under the Utilities Contracts Regulations 2016 (UCR16) utilising the Competitive Dialogue (CD) procedure, enabling TfGM to negotiate on the complex commercial elements of the contract to ensure best value for money outcomes.

2.6. Assessment of suppliers will include, but not be limited to:

i. **Financial / Legal Standing and Capability** - strong mandatory requirements and due diligence to ensure a strong financial standing, legal standing of the supplier , and supplier technical capability.

ii. **Technical / Deliverability –** ensuring suppliers have the capability, capacity, and experience to meet requirements.

iii. **Commercial -** including price, term, and key commercial criteria to ensure a value for money outcome.

iv. **Social Value -** due to the nature of the market and uninfluenceable factors (such as weather conditions and the regulatory nature of the UK renewables energy market), driving local social value will be challenging. However, the procurement will include a range of social value assessments including payment of Real Living Wage, prompt payment of supply chains to support SMEs; and commitment to the principles of the GM Good Employment Charter, to ensure that the selected supplier shares TfGM's social value aspirations.

3. Financial Implications

3.1. Based upon the latest Contracts for Difference auction, which is a government scheme to incentivise investment into renewable energy projects in the UK, TfGM are expecting a PPA strike price to be in the region of £85/MWh, which compares to current day ahead pricing of c£100/MWh (as of 19 November 2024) and year ahead pricing of c£86/MWh.

3.2. Assuming annually generated volumes of 45,000MWh, the PPA (which only covers the commodity cost, with non-commodity costs such as government levies still payable by TfGM) will have an annual cost of c£3.8m per annum.

3.3. The market 'norm' is for the strike price to be inflated annually in line with the Consumer Price Indices to account for increases in cost in operating and maintaining the generating asset, but this will be explored further as part of the procurement exercise.

4. Risks and Opportunities

4.1. Entering into a PPA on the terms above helps to mitigate the following risks:

i) **Price Volatility –** entering into a PPA brings long-term price certainty, with a long-term hedge against market volatility and also price fluctuations within the Renewable Energy Guarantees of Origin (REGOs) market.

ii) **Achievement of Decarbonisation Targets -** entering into a PPA supports the generation of renewable energy generation, effectively the 'gold standard' for green power supply and demonstrating decarbonisation.

iii) **'Green Washing' –** entering into a PPA for a new-build asset ensures that there is true 'additionality' by way of injection of additional renewable energy into the grid which would not otherwise exist without the PPA.

4.2 However, the following risks remain:

i) **Pric**ing Level – whilst a PPA offers price certainty, given the volatility within the market, it may not offer the lowest pricing when compared against procuring via traditional means at any given time.

ii) **Supply Chain Bottlenecks –** projects have potential for construction or grid connection delays post PPA signature, which would be offset by way of liquidated damages.

iii) **Market appetite –** the UK has ambitious renewable energy generation targets which are supported by a national Contract-for-Difference (CfD) auction process whereby renewable generators can bid for a government-backed PPA. The attractiveness of the national CfD auction process (i.e. the prices offered and volumes granted by government) could potentially affect bidder appetite in a PPA for TfGM

iv) **Accounting –** due to a virtual PPA being a financial instrument, accounting treatments will be carefully considered prior to entering into the PPA.

5. Next Steps

5.1. This first Power Purchase agreement for TfGM is intended as an initial 'pathfinder' to inform future PPAs for the wider GMCA Group and potentially other GM partners.

5.2. Subject to any feedback from GMCA, a tender will launch in January 2025, with contract award currently anticipated by Summer 2025. GMCA approval will be sought prior to contract signature.

5.3. It is currently anticipated that the PPA would become live before the end of 2027.