

2020-2035

# Municipal Energy Scenarios Explored

### Greater Manchester stands on the brink of an energy system transformation, with new business model opportunities, citizen and worker engagement channels, and innovative forms of governance emerging.

We propose Greater Manchester Energy Futures a bold and ambitious, municipal enterprise with the ability to act as convener of new partnerships and initiator of energy and infrastructure projects. Such a company has the potential to radically re-configure the regional energy system for the benefit of citizens, customers, workers and the wider environment, in a way that generates resources for re-investment in services and infrastructure.

Here we collect a series of potential ventures for GM Energy Futures, each prospectus imagines the company at a different stage of its development in the years ahead, allowing the reader to track it progressively extend the scope and scale of its operations as new opportunities emerge and capacity and confidence grows.

Whilst these project ideas are purely speculation, all have a basis in present day technologies and existing or demonstration-stage initiatives running elsewhere today, all can be replicated in Greater Manchester in this unique enterprise - see the accompanying notes for details.



#### About the project

These documents are the product of work carried out by a multidisciplinary research team from the People's Republic of Energy, a project initiated by Carbon Co-op and Energy Democracy Greater Manchester.

The publication coincides with Greater Manchester Mayor Andy Burnham's Green Summit in March 2018, and seeks to contribute to the debates and discussions that surround this event and future local and national policy making.

#### Credits

Lead researchers Jonathan Atkinson, Britt Jurgensen, Hannah Knox Co-researchers Ben Aylott, Bertie Russell, Laura Williams Contributor Matt Fawcett Commissioned by Carbon Co-op and Energy Democracy Greater Manchester

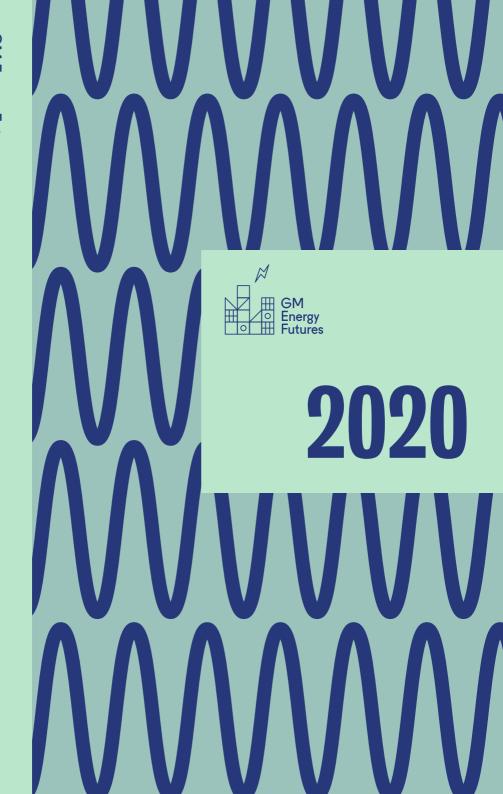
Funders ESRC (Economic and Social Research Council) as part of Jam and Justice, Seedbed Trust
Design Fieldwork

**Carbon Co-op** 









Welcome! Established in 2018 by the Greater Manchester Combined Authority and working in partnership with citizens, workers and key stakeholder partners, we are the new, trusted energy services social enterprise for Greater Manchester. As an ambitious, forward thinking company we will kick-start the energy transition in our city region.

#### What will we do

Deliver innovative, income generating low carbon projects

Tackle social issues such as fuel poverty and deliver a just energy transition

Reduce energy demand, paving the way for energy system transformation

Involve and engage Greater Manchester's citizens and energy company workers as key beneficiaries

# Connected communities - heat networks

We are overseeing the development of four new heat networks in Greater Manchester, bringing together producers and consumers and raising investment. On completion, we will offer low carbon heat to over 2,000 businesses and consumers saving money on bills. In two schemes, waste heat from industry will be used to warm social housing, reducing fuel bills for tenants by at least 5%. [2]

# Community Energy collaborations

In order to generate more clean, renewable power in Greater Manchester, we are working with ten community energy groups including Greater Manchester Community Renewables [3] to assess the feasibility of small scale generation projects including solar panels arrays on public buildings, water powered turbines and community scale batteries. Generating income and clean power - all on our doorstep!

### A Greater Manchester Infrastructure Observatory

Last year we helped set up the GM Infrastructure Observatory [4], a not for profit organisation that oversees the remunicipalisation of services and utilities, such as energy and water, and provides a voice for the people of Greater Manchester in the running of these services. Of the ten seats on our company board four are filled by representatives from the observatory.



#### **Travel in style**

Interested in electric vehicles but put off by the cost? We're running Smart EV car share schemes in all ten boroughs. Sign up via our affordable monthly contract or pay-as-you-go tariffs and we'll link you up with a local club. It's quick, simple and you can control it all via our App.

If you've already got an electric vehicle you can purchase a Transport For Greater Manchester 'Our Friends Electric' card, providing low cost tram, bus or electric bike travel and free charge up power at all our park and ride stations.

### **Notes & References**

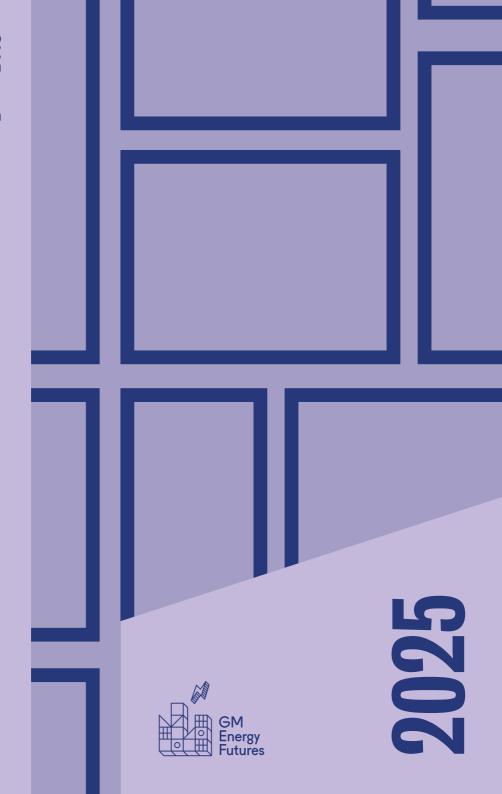
[1] Social enterprises combine trading activity with not-for-profit status. A Community Benefit Society governance model features an asset lock to prevent the sale of community assets and a membership open to individuals and organisations.

[2] In Gateshead, the local authority has established the Gateshead Energy Company, which has developed and now runs district energy schemes, offering heating for local residents, more information: <a href="https://www.gatesheadenergycompany.co.uk">www.gatesheadenergycompany.co.uk</a>

[3] Greater Manchester Community Renewables is a not-for-profit co-operative, as of 2018 it has invested nearly £200,000 in solar panel installations in schools around the city region with plans to grow further.

[4] In Paris, the Observatoire Municipal de l'Eau (OPE) was established to oversee the re-municipalisation of Paris' water services. Any citizen can stand for election to the observatory and the observatory has three seats on the new municipal water company board. The company has saved over €35m over the past 3 years (about 15% of turnover) and the observatory has re-invested €500,000 in to a local housing solidarity fund.





Join our fast growing membership to purchase clean energy and invest in our shared future. We don't have private shareholders skimming profit and putting prices up, instead we pledge to set fair, transparent prices and to re-invest surplus in new projects and infrastructure.

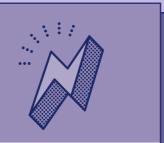


#### **Keeping it co-operative**

Structured as a co-operative, whether you're an investor or a customer, it's one member one vote, no matter how small or large your investment. You'll receive a dividend share when the company generates a surplus (estimated to be in the next five years) and you'll be a founder member of our unique new municipal co-operative partnership.

#### **Generation GM**

Building on our successful Community Energy collaborations initiated in 2020, we have formed a joint venture partnership with six local groups: 'Generation GM', to build megawatt-scale generation and community scale batteries. [1] Communities are now competing to host solar and wind turbines projects, with profits from these schemes creating local energy efficiency funds. Get in touch if you think your community could be generating for GM!



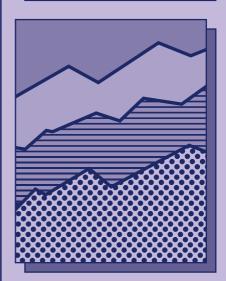
#### Taking back the power

After seven years in business, GM Energy Futures is now offering a single, fair and simple tariff for every householder in Greater Manchester – we won't penalise you if you're on a pre-payment meter and there's no standing charge. Anyone in the UK can benefit from our tariff but as a Greater Manchester resident you'll qualify for membership of GM Energy Futures, with a range of additional benefits including a share of profits and access to our offers on everything from solar panels to low carbon heating systems.

Our energy supply company is based in Greater Manchester but part of a UK-wide municipal energy social franchise, benefitting from shared back office services and the buying power of over 10 million customers country-wide. [2]

# Funding the future – invest in us

We're raising funds for new projects — so why not invest? We're looking for £40m from local investors to fund home solar panel schemes and new community scale generation – shares start at £100. If you already buy energy from us we can spread payments over five years via your bill and your investment can pay for panels on your own roof. [3]



### **Notes & References**

[1] In Wolfshagen,
Germany, the municipal
authority developed a
new 12MW wind farm
in a formal partnership
with a new community
energy cooperative - BEG
Wolfhagen. The project
enabled citizens to raise the
majority of investment in
the scheme, meaning local
people gained a controlling
stake in the development
and benefited financially
from it.

[2] Social franchise models are a simple way for organisations with shared values to benefit from scale whilst maintaining independence and reducing financial risk. They are common in sectors such as transport, care and financial services and in energy supply would allow local authorities to share back office functions such as wholesale purchasing and balancing services.

[3] Som Energia is an energy supplier and renewable energy generator co-operative based in Catalonia, Spain, with 50,000 members it is one of a growing number of suppliers for whom membership is integral to their business model. They offer innovative schemes for members combining the opportunity to support domestic and communityscale generation schemes with investments rolled into their energy bills. www.somenergia.coop





We are the one-stop service for all your energy needs — powering Greater Manchester for years to come. GM Futures is part of the Greater Manchester family of publicly owned utilities and services convened by the GM Infrastructure Observatory (now celebrating 15 years of safeguarding community benefit for all).

#### Taking the power!

With nearly 250,000 citizen and worker members our annual general meeting was attended by 5,000 people with another 10,000 contributing online. You voted to re-invest our annual surplus in reducing energy costs for our poorest communities and to reward staff members through a profit redistribution scheme. Our Chief Executive reported on our fair wages structure, with a fair wage ratio of 1:5 between the lowest and the highest paid employee in the company.

#### Locally owned grid

We're marking the first year of our new grid management lease arrangement in a joint venture with the DSO (ENW). [1] This partnership has enabled us to invest new resources in our shared energy infrastructure, enabling greater levels of renewable generation on the grid, as well as deploying the latest demand management technology to keep the lights on even at times of high use. Our aggregator service is now rewarding flexible households and business across Greater Manchester with incentive payments - many thanks to our members for their support and participation.



# Cosy comfy homes – for life!

This year we launch our 'Comfy Homes For Life' service. With no upfront costs, we will transform your property in to a warm, light and comfortable home with all the latest smart, low carbon technologies. [2] Carried out by our municipal retrofit works company and funded by the Greater Manchester Climate Levvy scheme [3], we can guarantee bills for the next twenty years. You can cash out anytime through the sale of the house - and we know from trials that Comfv Homes attract a premium on being sold due to low bills.

# Recruits needed for the energy revolution

We are recruiting! As old oil and gas industries decline, our clean, green company is growing and we need your skills. We're seeking engineers, technicians and programmers. If you think you've got what it takes, enrol on a training programme at a local college, university or as part of a work-based learning programme and join the energy revolution. Once on board you can join our workplace union, benefiting from their representation and advocacy.



### **Notes & References**

[1] DSOs are Distribution System Operators and will take over the management of the electricity distribution network in the next few vears. In his Government commissioned review of the energy system in 2017, Dieter Helm proposed transfering elements of system operation in to public hands on a franchise basis. In other parts of Europe, public and even local co-operative ownership of the distribution grid is common.

[3] In Alberta, Canada, the federal government levvies funds on the basis of fuel bill and driving patterns, re-distributing 75% of the levy via measures to reduce carbon. www.alberta.ca/climate-leadership-plan. aspx#p8420s1

[2] Energy Service contracts involve an Energy Services Company (ESCO) fronting upfront costs of energy efficiency retrofit, end users are guaranteed a level of performance and make pre-agreed payments over a period of time to pay off the initial investment. In 2018, such contracts are increasingly common in the non-domestic sector and small scale pilots are taking place in the domestic sector.

