Part 1: why community wealth building?



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This publication outlines why a community wealth building approach is needed for a just transition, and what this approach could look like.

Emerging from the Covid-19 pandemic, at the local, regional, national and international level we have seen many strong expressions of commitment to a 'green recovery'. Arguably, this has never been more important, as even though Covid-19 and the international responses to it resulted in the largest global fall in emissions since the second world war, we have not seen the 7.6% annual reduction needed to meet our global target of keeping warming below 1.5°C.1

UK Government is failing to deliver

While there has been a plan to address climate change more broadly since the 2008 Climate Change Act, and broader commitment from the government to a "green industrial revolution",2 UK national climate policy has been under increasing criticism - not just from the government's opponents, but from their advisory bodies, including the UK Committee on Climate Change.³ This is not least due to the lack of sufficient speed and funding to address climate breakdown at the national level. failure to take the role of local government seriously as part of these efforts,4 and too often poorly devised and implemented policy such as the Green Homes Grant scheme. Devised as an economic stimulus package in response to the pandemic and intended to mobilise UK supply chains to address domestic energy efficiency, the Environmental Audit Committee stated that the scheme was "rushed in conception and poorly implemented".5 The

Local authorities cannot afford to wait for the Government at Westminster to act. The UK's climate targets will only be realised if we unleash the full potential of local authorities, businesses and people

scheme was scrapped in March 2021, and of 123,000 applicants for the grant by the end of February 2021, only 28,000 vouchers were issued and 5,800 energy efficiency measures were installed.

The role of the local in tackling climate change

The local level will be absolutely crucial in addressing climate change. Any efforts to enable the energy transition will be implemented, and most keenly felt, at a local level. The UK's Committee on Climate Change has highlighted that for the government to meet its target of achieving net zero carbon by 2050 more than half of the cuts needed to emissions hang on decisions made at a local and individual level. In addition, local authorities have influence or powers over around a third of emissions in their areas and have a crucial part to play in influencing and shaping local development and pushing forward progressive solutions to the climate emergency.

Over 300 local authorities have declared climate emergencies in the UK since 2016, and over half of them have laid out the ambitious target of achieving net zero by 2030. While this is an impressive commitment, these targets are often for council emissions alone, rather than for the whole locality. To meet these ambitions across our localities we need to consider local authorities' ability to decarbonise using their economic power and wider influence at the local level.

We need an energy transition which has at its heart a commitment to energy justice, where we seek to restructure our local economies and progress the energy transition in a way that tackles social, economic and environmental injustices whilst building wealth in our communities. Community wealth building seeks to restructure the composition of the economy so that wealth is broadly held, shared, and democratised. This is particularly important if we are going to achieve an energy transition which addresses the inequalities inherent in our current energy and economic systems, currently resulting in unacceptable levels of fuel poverty across the UK.

Giving people a stake in their local energy systems

We have the opportunity, now, as we seek to recover from the pandemic and with the potential for an economic reset, to tackle the inequalities which are baked into our current economic system by taking a bold new approach. Traditional approaches to economic development have driven us to the point where we are witnessing the erosion of "the very foundations of our economies, livelihoods, food security, health and quality of life worldwide". We must progress approaches which help us to forge a new path for green economic development, or risk further embedding social injustice within our approaches to transition.

In addition to the need to shift away from the current economic system due to its legacy of harm to the environment, many cities and citizens have found that larger vested interests in the economy, including large energy companies, are actively blocking energy transition. Taking locally-based, community-, public- and worker-owned approaches to energy transition, local authorities and local people have been able to develop approaches to transition which place people and planet at their core.

We know that "market solutions" alone are not going to fix this problem. While we have seen the dominance of the five key players in the UK's energy market diminish since 2005 (from holding 93% of market share, down to 70% in 2020), ¹⁰ the number of suppliers in the market is contracting (from over 70 in 2018 to under 50 in 2021) ¹¹ with many small firms at risk of going bankrupt. ¹² The challenges we are due to see in coming years have become starkly apparent through the UK's current energy crisis, driven by decades of poor national energy policy and the "perfect storm" of market forces. ¹³

While this crisis will affect many households, its role in driving deeper and more widespread fuel poverty could be devastating. With only 15% of government funding to improve energy efficiency and support for households struggling with fuel bills going to households in fuel poverty, and the failure of the energy companies to take concerted action, we are not seeing the delivery of energy transition at the speed or scale we need.¹⁴

We need to pursue a just energy transition which supports the creation of local economic and energy democracy by prioritising energy justice, keeping wealth local and ensuring our communities and public institutions have a say over, and stake in, how we generate and save energy.

Figure 1: Council influence in addressing climate change



Reproduced and amended from Local Authorities and the Sixth Carbon Budget

What does a community wealth building approach to energy transition look like?

The role of local authorities

Local authorities have a far greater role in supporting energy transition than commissioning and contract managing some 'green' projects. They have a critical role in thinking outside the box, exploring the potential of innovation driven and owned by the public sector rather than waiting for the private sector to develop solutions to our energy problems.

Local authorities have the power to shift the local economic and energy landscape by adopting community wealth building into their practice, enabling an approach to energy transition which builds community wealth.

Their roles include:

ACTING AS A CONVENOR

To achieve energy transition it will be important to bring partners together to work collaboratively. Local authorities are well placed to use their influence to convene partners to work together towards the common goal of tackling climate change through zero carbon measures.

CREATING DEMAND

Implementing local industrial strategies will be key to unlocking the business activity needed to make the physical changes needed within the electricity, heat and transport systems – from the creation of local green jobs, reskilling and training, to the development of local businesses which can deliver retrofit, generate energy, and maintain new green infrastructure.

DIRECT DELIVERY OF TRANSITION PROJECTS

Establishing, or supporting the establishment of, public or VCSE sector organisations that can deliver energy transition projects.

ENCOURAGING EARLY ADOPTION OF ZERO CARBON ENERGY TECHNOLOGY

Acting as enablers of local energy transition by creating the right conditions for the energy transition to flourish. This could mean addressing challenges around planning policy, developing training programmes, creating financial incentives for local people and groups to address their energy use, and enabling others to take action to progress energy transition.

FUNDING THE ENERGY TRANSITION

Levering and supporting the distribution of funding to support energy transition initiatives. This could be done through local government borrowing, central government grants, coordinating alternative finance (such as community share initiatives or community municipal bonds) and green finance (working with purpose-driven banks).

Importantly, local authorities (and other local anchors) have a central role in setting the trajectory of local energy transition through the development and implementation of strategy and policy. Within this context, hardwiring carbon emission reduction into local policymaking is of critical importance.

Tackling climate change requires a comprehensive transition away from lifestyles, economies and systems reliant on fossil fuels. That is why measuring the resulting carbon emissions reduction of any proposal, policy or project is a crucial part of a community wealth building approach to the energy transition. Councils and anchor organisations can firmly lock this into their strategies by integrating carbon emissions accounting into their modelling and planning exercises, ensuring that the whole life carbon impacts are understood. This should be followed up with thorough enforcement via robust carbon reporting, evaluation and monitoring, ensuring that the predicted carbon savings become a reality.

Community wealth building provides resilience where there is risk and security where there is precarity. Local authorities must flex existing practices towards economic, social and environmental justice and encourage other anchor institutions to do the same to achieve a just energy transition. The key foundations of this approach are based around five pillars, all of which can be used to enable local energy transition.

Innovation in local government: Nottingham City Council

Nottingham City Council decided to develop their own technical solution to the problems they faced around heat monitoring for users of the city's district heat networks - a more complex task than metering for gas and electricity - and created the EEMonitor. This has not only allowed them to develop metering for properties connected to their heat networks but is also being used to support billing around Energiesprong properties to repay capital costs. Significantly, it is being sold as a solution not only to other local authorities but also to private businesses, creating additional income for the council. For more information, see Part 4 of this toolkit.

Figure 2: The five pillars of community wealth building







Energy transition hinges on the use of land and property – land which can be utilised for energy generation and zero carbon developments; the retrofit of properties and installation of green technology to support energy generation and the decarbonisation of heat; and the availability of space for new businesses and initiatives. Councils and other anchors have significant assets which must be decarbonised if we are to reach our net zero carbon ambitions, and which can be used to support energy transition in different ways – for example, to provide space for new businesses working to support energy transition or to generate energy.

Establishing the ways in which energy generation on these sites, and the retrofit of these properties, can be done in a way that builds community wealth will be central to ensuring local businesses and people benefit from the amount which will be spent on the energy transition.

Procurement and commissioning practices are key policy levers that local authorities can utilise to shape local economies towards carbon neutrality, and have huge potential to support the energy transition.

Councils spend significant amounts on energy every year - by purchasing a realistic proportion of their energy from a local community renewables company, or from their own municipally owned energy generation, they will be driving public money back into the local economy whilst progressing towards their climate targets.

When procuring services relating to the energy transition, a community wealth building approach:

- Supports local generative businesses to enter local supply chains, helping to retain wealth in the local economy by using methods such as contract lotting (ensuring the size of tenders is appropriate for local generative businesses) and ensuring opportunities are clearly communicated to local businesses that may be interested in applying for public sector opportunities.
- Ensures that where external contractors are used they deliver meaningful social value for the local area.

 Supports the development of local supply chains to meet needs around energy transition, with councils making the most of opportunities to partner with training and education organisations, suppliers and other anchors to upskill the local workforce.

In addition, councils have a key role in monitoring the delivery of energy transition work in their contracts. There have been issues in the past with large developers committing to integrating energy transition measures as part of their work, which have not been delivered. As such, robust contract management is needed to ensure councils and communities get what they need from any larger contractors committing to taking measures around energy transition.

Public sector procurement and spending can be used to support and encourage the private sector to invest in and develop new solutions to enable the energy transition. Community wealth building approaches also prioritise businesses with clear social and environmental values, and procurement could be used to encourage the wider decarbonisation of supply chains beyond tier one suppliers.



To achieve an energy transition which centres energy justice, we need finance to work for our local places to ensure the burden of cost does not fall on those already burdened by our current approach to energy. Longer term solutions to generating finance include establishing, scaling up and adapting regional banking initiatives (such as the North West Community Bank) to secure green financing opportunities.

However, these types of initiatives can take a while to establish, and in the interim we must think creatively about how councils can use their financial power to enable the energy transition. As green initiatives develop it will still be necessary to lever in grant funding due to the scale of finance needed to progress this agenda. Alongside this, however, it is possible to develop a patchwork of local financial solutions which build community wealth through schemes such as the Public Works Loans Board borrowing, using communitymunicipal bonds, or supporting the use of community shares to fund community-owned and municipal energy projects. Councils themselves have the capacity to invest locally into schemes which will advance energy transition and to support the seed funding of projects which could have significant environmental and social impacts in the local area. Council financial powers may also be used to support others hoping to develop

decarbonisation projects by providing bridging or equity finance by purchasing a stake in an organisation – this is what Oldham Council did to support the development of Oldham Community Power (see Part 4 of this toolkit).

It may be possible to invest council pension funds in local energy projects which will build community wealth, similar to the way pensions have been invested in local property by Preston Council. However, this is not something we have seen evidence of yet and there are challenges relating to shareholder duty and the size of investments – but these challenges are not insurmountable. All of this will be needed to progress the energy transition at pace.



Councils must lead by example, driving energy transition initiatives (such as retrofitting council-owned property) to create local jobs and opportunities for people and businesses to develop the skills needed to meet the scale of action required to enable the energy transition. By creating these opportunities, councils can de-risk the investment needed to build a local skills-base for the activities needed for the energy transition. Commitment by the public sector to progressing the energy transition can also build the confidence of the private and social sector to get involved and create more local employment opportunities through their own energy transition activity.

The creation of these local employment and skills development opportunities is an imperative part of a community wealth building approach to the energy transition – delivered in partnership with other local anchors such as colleges and universities. This is because achieving our climate targets in a way that builds community wealth will hinge on both the availability of local people with the skills to deliver energy transition (and their support to build the local supply chains we need) and the retraining of people in carbon heavy industries to enable them to transition into green jobs.

If we are going to build an energy system which addresses the inequalities built into our current economic system, all workers in these industries should be fairly paid (e.g. the Real Living Wage as a minimum standard) and have good terms and conditions. The UK energy sector still has a significant gender pay gap, and the energy industry as a whole faces the double challenge of an ageing workforce and skills needed as a result of digitalisation – relying on workers' willingness to reskill, upskill and participate in adult education.¹⁶ Efforts need to be made to address these gender and age challenges within the energy sector. Given the scale of the drive for renewables in the UK, local authorities should use a community wealth building approach to the energy transition to connect their employment and skills approaches to the gaps in the energy sector and support the development of pathways into green employment for local people.

Building understanding among the council work force should be an ambition of all local authorities when seeking to develop broader influence over local emissions and supporting energy transition beyond the boundaries of their own land, assets, and spend. A good place to start on this journey is to put staff through accredited carbon literacy courses, an action many councils are taking already.¹⁷

There is also an important role for all public sector organisations to play in upskilling their own workforces to build capacity to deliver the energy transition. This might include, for example, upskilling in-house teams or Direct Labour Organisations (DLOs) to install and maintain retrofit technologies (such as heat pumps). These teams might then be used to support local supply chains, building an understanding of whether the area has any specialist contractors, and exploring how to implement specialist technologies on public sector land and property.

In addition, some energy providers are now offering salary sacrifice schemes similar to the Cycle to Work scheme. These enable employees to purchase electric vehicles. Such schemes should be considered to support the energy transition beyond the council's immediate sphere of influence.



All five pillars should stimulate the creation and development of a more democratic local economy – a landscape supporting wider and more diverse ownership of the economy, including municipally owned, worker owned and community-owned businesses, charities, social enterprises and SMEs. Democratising the local economy also needs to feature the creation of opportunities for people and communities who would usually be excluded from shaping the local economy (and in this case local energy systems) to both participate and benefit from new forms of business and ownership.

Community wealth building is an approach which supports locally owned or socially minded enterprises because they are more likely to employ, buy and invest locally, contributing to local economic development rather than extracting wealth. These forms of business will be essential in tackling the climate emergency.

A community wealth building approach to energy transition will support the development of such socially minded, locally owned, enterprises and projects. This support should include facilitating the conversion of existing businesses working in this space to transition to models such as worker

or multi-stakeholder co-operatives – an approach particularly relevant for businesses which are at the point of business transition (e.g owners retiring or selling) – and enabling the development of businesses and projects with significant community-owned elements (such as community renewables). Remunicipalisation of energy infrastructure by local authorities should also be considered to increase municipal control over energy management – although in the UK context remunicipalisation of energy infrastructure would prove more challenging than in other countries such as France and Germany.¹⁸

More local energy ownership has been proven to prompt greater buy-in from local communities for further energy projects, and to upskill and empower the public to act on climate change.¹⁹ This is exactly what is needed to broaden public understanding of, and wider positive action to tackle, climate change – however there are some barriers to this due to the national policy context.²⁰ These barriers will not be explored within this paper, but what will be outlined are some solutions which are already available to support alternative models of ownership at the local level in the UK.

To date the predominant approach to addressing climate change in the UK has relied heavily upon a market led approach.²¹ However, given the urgency of the climate crisis and the commitment to net zero by 2050, it is becoming increasingly clear that business along will not be able to respond with the speed required. As such, local authorities have a crucial role to pay in helping to address market failure, and accelerate the move to zero carbon approaches to energy transition in a way which will strengthen local supply chains and democratise the energy market.

What is (re) municipalisation?

Remunicipalisation refers to the operational role of local authorities in the creation of a new public service (municipalisation) or the reversal of a service from private management to public management (remunicipalisation). This means it is transferred from private management of any form to full public ownership, management and democratic control.

It is fuelled by the aspiration of communities and local government to reclaim democratic control over public services and local resources, to pursue social and environmental goals and foster local democracy and participation.

In the UK, Hackney Council have demonstrated municipalisation in the development of Hackney Light and Power, and there are international examples of energy remunicipalisation in Hamburg, Germany; Boulder, Colorado; and Catalonia.

What is local energy ownership?

Local energy ownership encompasses all the initiatives and processes undertaken by local authorities and citizens to promote local energy governance, which includes remunicipalisation; devolution; community projects and participative governance.

Definition from Andreas Rüdinger (2017). Local Energy Ownership in Europe. Energy Cities.

Going beyond our councils: anchor institutions, the community, and the private sector

A community wealth building approach to energy transition cannot be delivered by local authorities alone. Councils have limited influence over local emissions, and everybody working to deliver energy transition faces the question of how solutions can be applied at scale.

Anchor institutions

Going beyond our councils, other place-based anchor institutions (such as housing associations, NHS Trusts, universities and colleges) are reckoning with their needs around the energy transition. We are already seeing significant progress at the local level:

- Berwickshire Housing Association developed the 'Fisherman Three' windfarm, which generates enough renewable energy to power 5,900 households, and will provide a return on investment of £20m over the next 25 years, money which will go into providing and improving local housing.
- The Royal Wolverhampton NHS Trust have partnered with Wolverhampton Council to develop a solar farm to power New Cross Hospital, using an unused landfill site provided by the Council to build a 6.9MW solar array.
- Reading University partnered with Reading Community Energy Society (a community benefit society) to install solar panels on three of the University's buildings. the Energy Society is well established in Reading and reinvests profits back into community grant funds.

Anchor institutions will not only be able to use many of the approaches recommended within this toolkit but also have a critical role in enabling



What are anchor institutions?

Anchor institutions are large public, commercial and social sector organisations. Their size is significant enough to exert sizable influence on the local economy through the purchase of goods and services, local employment and through the deployment of their land, property and financial assets.

Through community wealth building, anchor institutions use their power to build a more democratic local economy. For example, in Preston, the council led a coalition of willing anchor institutions to flex their existing practices in order to meet pressing economic challenges.



cross-sector approaches to energy transition which build community wealth. Collaboration will be central to creating a joined-up approach to energy transition, and anchors will need to come together to build a place-based approach to energy transition with everybody on board. Anchor Networks will be a crucial tool in helping this to happen – and can have a specific focus on climate (as in North Ayrshire).²²

National targets to reach net zero are reliant on the energy network's ability to support new green energy, and as such in addition to the 'usual' anchors, Distribution Networks Operators (DNOs) should be considered as an anchor, particularly in the context of supporting local energy transition. As the owners and operators of regional electricity distribution networks, they have a key role in supporting the energy transition by managing local power lines and substations, and are central to supporting the creation of a smart grid that responds to the needs of our communities and energy initiatives.²³ DNOs can provide support in relation to energy projects, act as funders, and play a significant role in any energy works that need to be connected to the grid.

While this toolkit focuses predominantly on the tools local authorities (and other anchors) can use to support energy transition, achieving what's needed to meet our climate targets will be impossible without working with communities, the community sector, and the private sector.

Communities and social organisations

We know that community-owned initiatives (such as community renewables) have proven to be a successful model for enhancing citizen participation in climate strategies developed by municipalities across the world. Not only has community ownership been instrumental in triggering the low carbon energy revolutions occurring in other European countries, they contribute to creating public awareness of the need to reduce carbon emissions, increase uptake renewable energy technologies, and broader energy efficiency measures.²⁴ These initiatives have broader benefits for communities, enabling them to harness local natural resources to build social capital, create employment opportunities, create revenue for community development, and tackle fuel poverty. To achieve a low carbon energy transition, we need to design an energy system which gets citizens and communities involved – building energy citizenship within their local area.

Figure 3: The relationship between sectors



A community wealth building approach to energy transition should factor in how it will support the development of energy citizenship locally. Creating participatory ways for local people to get involved in shaping energy transition (such as <u>local energy action planning</u>)²⁵ is a key element anchor institutions should consider when developing their community wealth building approach to energy transition.

The community and voluntary sector are similarly important in delivering a community wealth building approach to energy transition. With a social aim at their heart, many are already working in communities which would benefit

from the interventions made to progress energy transition. These organisations will be key in understanding the needs and assets of local communities in relation to energy transition, and can act as a gateway to reach the people they need to hear from when building participatory approaches to energy transition.

The private sector

Many businesses are already progressing their own approaches to energy transition, and there are many keen to step into the sphere of energy transition. Local authorities should seek to work with local generative businesses which can support their ambitions around energy transition and community wealth building – working with those who help wealth 'stick' locally to more deeply embed the community wealth building pillars and practice in the area.

Where these businesses do not exist, local authorities should seek to support those businesses that do exist locally to take steps towards supporting the energy transition themselves – whether through their own decarbonisation or through providing some of the services required to transition locally. North Ayrshire has provided a £500k fund to support green economic recovery, both supporting the creation of local, fair and green jobs and enabling businesses to become 'greener' through reducing carbon emissions and developing new processes and technologies to address climate change.²⁶

Anchors should consider how they can work with local private firms to build the skills needed locally, and articulate the public sector's pipeline of work relating to energy transition. This is to ensure that local generative businesses which are rooted in place can step into the gap which would otherwise be filled by national or multinational organisations which are more extractive and would remove wealth from the local economy.

A community wealth building approach to energy transition should seek to work with local businesses which can help wealth 'stick' locally, and factor in support for such businesses to take steps towards supporting energy transition themselves.

References

- 1. G Vince (2020). After the Covid-19 crisis, will we get a greener world? The Guardian. Read.
- 2. UK Government (2020). The Ten Point Plan for a Green Industrial Revolution. Read.
- 3. UK Committee on Climate Change (2021). Time is running out for realistic climate commitments. Read.
- 4. UK100 (2021). Power Shift: Research into Local Authority powers relating to climate action. Read.
- House of Commons Environmental Audit Committee (2021). Energy Efficiency of Existing Homes: Fourth Report of Session 2019-21.
 Read.
- 6. Climate Change Committee (2020). Local Authorities and the Sixth Carbon Budget. Read.
- 7. Ibid.
- 8. J Leibowitz (2020). A Green Recovery for Local Economies. CLES. Read.
- 9. L Steinfort (2020). Chapter 15: Putting energy democracy at the heart of a Green New Deal to counter the climate catastrophe. The Future is Public: Towards Democratic Ownership of Public Services. The Transnational Institute: Amsterdam. Read.
- 10. Ofgem (2021). Electricity supply market shares by company: Domestic (GB). Read.
- 11. Ofgem (2021). Number of active domestic suppliers by fuel type (GB). Read.

- 12. J Ambrose (2021). Small UK energy suppliers could go bust in winter as gas prices rise. The Guardian. Read.
- 13. J Ambrose (2021). What caused the UK's energy crisis? The Guardian. Read.
- 14. UK Government (2021). Annual Report. Committee on Fuel Poverty. Read.
- 15. L Steinfort (2020). Chapter 15: Putting energy democracy at the heart of a Green New Deal to counter the climate catastrophe. The Future is Public: Towards Democratic Ownership of Public Services. The Transnational Institute: Amsterdam. Read.
- 16. Pinsent Masons (2021). Bonus pay gap in energy sector significant, gender pay reporting shows. Read.
- 17. Carbon Literacy Toolkits for Local Authorities. Carbon Literacy Project. <u>Read</u>.
- 18. A Rüdinger (2017). Local Energy Ownership in Europe. Energy Cities. Read.
- 19. J Farrell (2014). Advantage Local: Why Local Energy Ownership Matters. Institute for Local Self-Reliance. Read.
- 20. A Rüdinger (2017). Local Energy Ownership in Europe. Energy Cities. Read.
- 21. M Dell'Aquila, D Atzori, O Raluxa Stroe (2020). The Role of Policy Design and Market Forces to Achieve an Effective Energy Transition: A Comparative Analysis Between the UK and Chinese Models. In: M Hafner, S Tagliapietra (eds). The Geopolitics of the Global Energy Transition, vol 73. Springer. Read.

- 22. North Ayrshire Community Wealth Building Anchor Charter. Read.
- 23. Community Energy England. Distribution Network Operators. Read.
- 24. J Roberts, F Bodman and R Rybski (2014).
 Community power: Model Legal Frameworks
 for Citizen-owned Renewable Energy.
 ClientEarth: London. Read.
- 25. Local Energy Scotland (2019). Local Energy Planning: A guide to developing local energy plans. Read; Carbon Co-op (2021). Oldham Energy Futures. Read.
- 26. North Ayrshire Council (2021). £500k Fund to support green economic recovery. Read.

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Part 3: Current and emerging practice

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Centre for Local Economic Strategies (CLES)

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Carbon Co-op is an energy services and advocacy co-operative that helps people and communities to make the radical reductions in home carbon emissions necessary to avoid runaway climate change.

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