



Establishing public-private Joint Ventures and partnerships for investment in and delivery of energy schemes





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Disclaimer:

All information within this document is for information purposes only, and no decisions or actions should be taken on the basis of anything herein without recourse to further, appropriate, professional advice.

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Department for
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Glossary

CBA	Cost Benefit Analysis
CLG	Companies limited by guarantee
CLS	Companies limited by share
ECM	Energy Conservation Measures
EPC	Energy Performance Certificates
ESCO	Energy Service Company
ESPC	Energy Service Provider Company
IGP	Investment grade proposal
IRR	Internal Rate of Return
JV	Joint Venture
LEP	Limited Liability Partnership
LLP	Local Enterprise Partnership
MOU	Memorandum of Understanding
MUSCO	Multi-Utility Service Company
NDA	Non-Disclosure Agreement
PPP	Public Private Partnership
ROI	Return on Investment
SPV	Special Purpose Vehicle



Abstract

This document sets out a high-level approach to the consideration, development and opportunity of Joint Ventures (JV) for public / private partnerships in energy projects. Developing a mutually beneficial relationship between the public and private sector working on energy related projects is expected to become increasingly critical. Local Authorities are setting ambitious carbon reduction targets and local and regional economies developing Clean Growth plans can take advantage of the economic, social and environmental advantages decarbonisation can bring. A core part of this decarbonisation work is changing the way we generate, distribute, consume and supply energy, and the efficiency with which we use it. Local Authorities are also increasingly participating in what is termed 'municipal entrepreneurship'¹ in a variety of arenas, including energy. The basis of this is to increase, maximise and retain value within the local authority area, shaping and creating markets and addressing market failures¹. Commercial thinking within Local Authorities can apply directly to energy services and projects, many of which can have profound positive effects on outcomes for local people and businesses. A change in thinking and culture, as well as internal capacity, is required to realise the benefits of municipal entrepreneurialism; this can include working with Joint Ventures¹ and other commercial and partnership models.

This guide is intended to act as a starting point; providing prompts, processes and signposting, to assist Local Authorities who are looking at this new approach to delivering clean growth through energy projects. There are several options available to local authorities with regards to the vehicle and forms of partnership (if any) to deliver projects. One approach is to engage with the private sector through partnerships of varying degrees of legal and structural formality– this guide is ultimately focussed on exploring a form of partnership known as a Joint Venture (JV). This is due to the potential for this type of formal partnership, as seen in other local authority service areas and public sector working, to deliver projects and investment at a scale consistent with the challenge ahead, and for the demands of key stakeholders.

This document will provide an outline of the steps required and questions to consider as to whether a Joint Venture is an appropriate approach to take. It is important to evaluate the option of a Joint Venture against existing ambitions (i.e. broader corporate aims) and to use this to inform what criteria can be used with a procurement framework. A decision to form a Joint Venture can be at the start or at different stages of a project. Equal consideration needs to be given to both delivery and ongoing performance management.

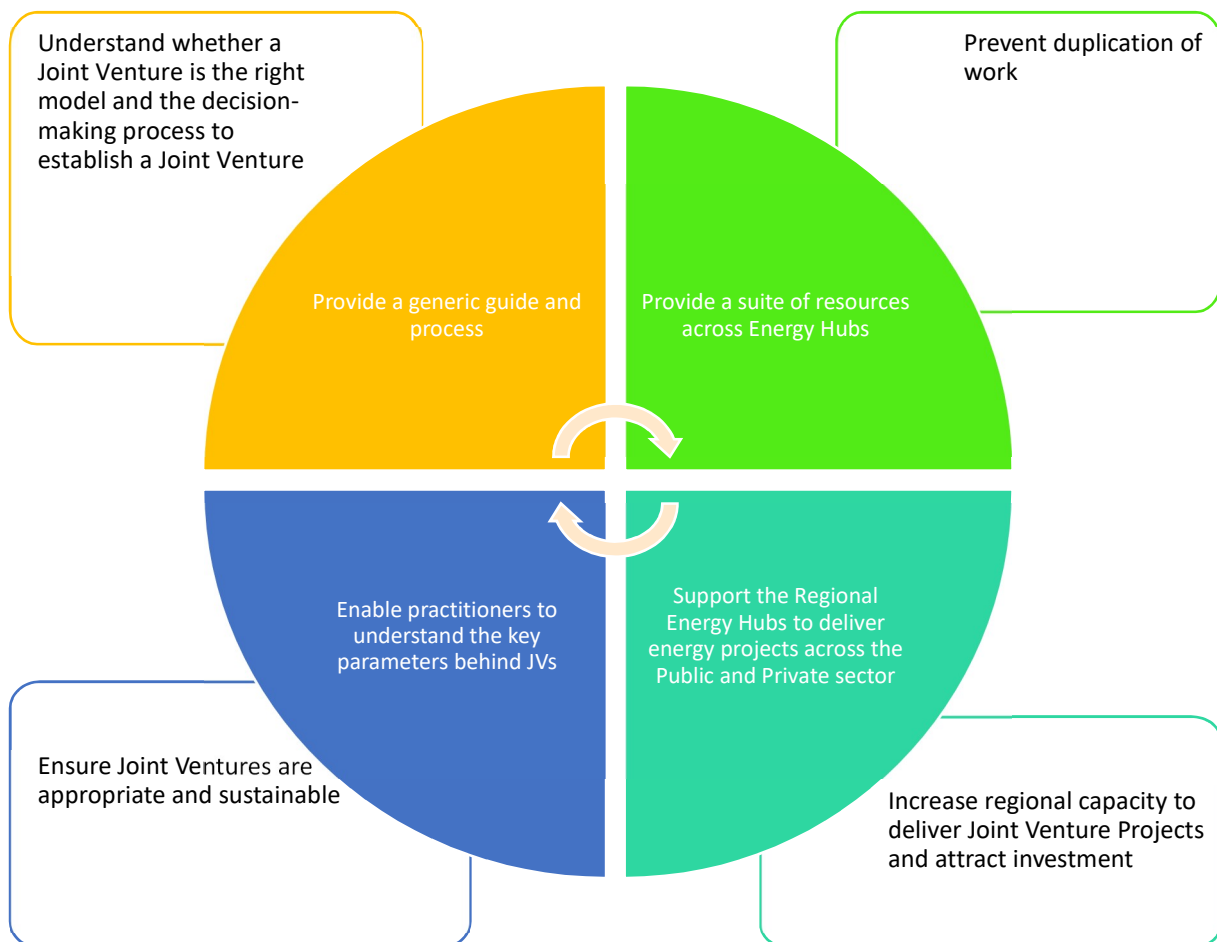
This document provides an outline that can be accessed and utilised where appropriate, reducing duplication of effort and learning lessons from other public sector bodies. Joint Ventures are one of many forms of approach a local authority can take in approaches to achieving commercial and energy objectives, particularly in partnership with other organisations. It may not be the best fit for all

¹ APSE – The new municipalism: Taking back entrepreneurship. June 2018.
<https://www.apse.org.uk/apse/index.cfm/research/current-research-programme/the-new-municipalism-taking-back-entrepreneurship/>

projects, and expectations have to be managed. This guide will help position the role of JVs within this context so that early identification of priorities and approaches can be made. Every organisation starts from a different place, in a different context, and this needs to be considered. It is worth reflecting on the individual context from the outset and the requirements of a set project or partnership.

Purpose

This guide has been produced to highlight the potential opportunity of joint venture working and enable local authorities, with the support of Energy Hubs, to attract investment to deliver local and regional energy projects at a greater scale and scope. Depending on the partner(s) selected, as well as finance they can bring expertise in de-risking, delivery and long term stewardship of projects. The intended outputs and outcomes that have shaped the report are displayed below. A key aim is to help local authorities explore and develop Joint Ventures that are appropriate, effective and sustainable. The partnership approach can deliver projects in combination with each other and/or in a portfolio approach to deliver cost efficiencies, stronger commercial performance, less disruption, scale and a less siloed delivery model.



This document is designed to assist organisations in identifying:

- Objectives for a project and appropriate mechanisms for delivery of project
- Whether a JV could be considered
- Necessary and desirable JV characteristics and participant capabilities
- Which assets and/or resources can be considered within the scope of the JV/potentially transferred to the JV
- The optimal route and business model for funding / financing the project(s)
- Governance of the asset(s) and / or service
- Identifying and mitigating risks
- Understanding trade-offs between different approaches
- Internal structural, cultural and capacity changes required
- Procurement routes
- Management and delivery through contractual form to ensure key delivery of outcomes

Introduction

The energy system is changing. Energy services are changing. The challenges posed by the so-called energy 'trilemma' – energy security, affordability and decarbonisation – are disrupting traditional thinking and necessitating a move away from traditional generation and distribution models. Social acceptance of, and consumer engagement, with new energy sources and energy behaviour change are further considerations in addition to the trilemma. The latest national net-zero carbon 2050 target means that wider strategic planning of energy infrastructure for both the public and private sector is an imperative. The future system configuration may mean solutions are locally tailored and managed dynamically in order to best use available assets to meet demand, cost and carbon effectively. The integration of different energy systems, and the advent of energy storage and smart technology, creates numerous opportunities and challenges. Simultaneously, energy is becoming increasingly decentralised; heat, electricity and transport are increasingly becoming integrated entities through regional or localised approach. Not least for novel energy services provisions and for local authorities and other actors to play a part in strategically planning and delivering this energy revolution.

At the outset of electricity provision, municipalities had a more prominent role, but it took more than half a century before a new municipally-owned public energy supplier arose; Robin Hood Energy in Nottingham – now joined by Bristol Energy. Energy is becoming “an integral part of the wider spatial,



economic and wellbeing strategies undertaken as part of the normal business” of local government². There have been Council owned or operated heat networks though for many years. Heat networks continue to be an important low-carbon heating provision for commercial, public and domestic properties, and, with significant government commitment. The Committee on Climate Change estimated that around 18% of UK heat in buildings would need to come from heat networks by 2050 if the UK is to meet its carbon reduction targets cost effectively³. The advent of Feed-in-Tariffs enabled a high-level of activity from local authorities as they sought to generate low-carbon energy and create an income stream from their portfolios, and to help tackle fuel poverty in social housing. This built on an entrepreneurial streak within some councils that has a particular resonance in energy services. However, the scale of investment necessary to achieve local and national targets going forward is a step-change, and will require private investment⁴.

Decarbonisation will create a supply gap with current approaches as carbon intensive generation will come off-stream, as seen in the recent closure of coal power stations. This supply gap is estimated to become 47.5% of UK generation by 2025. The cost of the energy transition is currently largely placed on consumers and “Local Authorities are exposed to the social and economic consequences of energy affordability”⁵. However, Local Authorities are uniquely placed to capitalise on the benefits on the transition. Local Authorities are seen as a trusted intermediary and can provide understanding of local demand leading to bespoke solutions. The integrated nature of energy and transport provision in an increasingly decentralised sector means that Local Authorities are well situated to strategically plan infrastructure development. For example, Vehicle-to-Grid (V2G) technology.

There are many forms of commercial partnerships and approaches, which this document will cover. The focus for this document is on the potential for Joint Venture structures and projects to achieve the scale of action required for national and local carbon neutral targets in a high-value manner. This includes the opportunities afforded by a portfolio approach, integrating an array of energy projects to achieve the scale of action required for national and local carbon neutral targets. Such approaches combine the most profitable business cases with essential less profitable work, enabling a larger scale of delivery as the portfolio of projects as a whole remains profitable.

² <http://localpartnerships.org.uk/wp-content/uploads/2016/12/Local-Energy-options-guide-web-version-1.pdf>

³ Imperial College London for Committee on Climate Change (2018) Analysis of alternative UK heat decarbonisation pathways <https://www.theccc.org.uk/publication/analysis-of-alternative-uk-heat-decarbonisation-pathways/>

⁴ <http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2017/04/Matikainen-2017.pdf>

⁵ <http://localpartnerships.org.uk/wp-content/uploads/2016/12/Local-Energy-options-guide-web-version-1.pdf>



Local authorities' opportunity to engage in the energy transition

National policy context and benefits of municipal entrepreneurship

The 2017 Clean Growth Strategy states the objective for the Public Sector to be a leader in the growth of a sustainable and low-carbon economy. The strategy provides long-term targets and reporting mechanisms, which look to address barriers and supports access to finance. Additionally, the 2019 Green Finance Strategy acknowledges the importance of capitalising city and regional energy strategies. Local green finance markets will play a significant contribution to tackling climate change and there is a need to remove barriers in order to facilitate local investments. Changing central government policy has led to growing uncertainty with the shift from Renewable Obligation (RO) to Contracts for Difference (CfD) and end to the Feed-in-Tariffs incentives. Local authorities are well positioned to help remove some uncertainty with long-term planning and localised assistance. However to deliver the required scale of action means private investment will be necessary and using private invest will help to simultaneously strengthening the competitiveness of the UK financial services sector⁶.

As the national Green Finance Strategy, makes clear “whilst there is a clear role for government to act as a cornerstone investor, it is equally important that green projects are able to develop new revenue streams that provide rewards for the environmental benefits they deliver”⁶.

The municipal entrepreneurialism agenda in local authorities stems largely from the Localism Act of 2011, and its provision of General Powers of Competence. This provided freedom for Councils to act in a more commercial manner, provided they took certain steps to avoid it unfairly distorting local markets. APSE's work with local authorities clearly recommends that public value is the key consideration behind commercial thinking. Municipal entrepreneurship can be used to affect Council objectives in a number of ways. Nottingham City Council are an example of a local authority who have embraced the commercial agenda. They have also developed a policy of insourcing to build up greater capacity, flexibility and cost effectiveness to deliver its energy project and service aims, and use the available resources to provide services to commercial clients. This generates additional income, supporting other projects and frontline services elsewhere in the Council.

⁶https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/820284/190716_BEI_S_Green_Finance_Strategy_Accessible_Final.pdf



Systemic shift and emerging energy market opportunities

Energy is a public good, and uptake of the low carbon energy market can provide positive externalities by increasing energy affordability and security. Investment in renewables globally (excluding large scale hydroelectric) increased from \$39.5bn 2004 to \$270.0bn in 2014⁷. Private sector investment is influenced by many factors. The three key elements are project risks, payment mechanism and length of term of the contract⁸.

Entering into partnership can create additional revenue through increased private economic activity, profits gained from the investment in the public good, new investment opportunities and new markets⁹.

Examples of emerging markets Joint Ventures could assist:

- Heat networks (including uptake of innovative technologies)
 - Low temperature return
 - Using mine water as a heat source
- Local energy systems, Micro grid and Virtual Power plants
- Energy generation and storage
 - Regional roll out of EV charge points – balancing EV demand with renewable generation
 - Multiple Large scale PV / Storage projects
- Domestic whole house retro-fit
- Energy from Waste
- Anaerobic digestion
- Other energy-as-a-service integrations of energy assets and delivery

The Midlands Energy Hub has collated current regional priorities and emerging technologies. Economies of scale through regional action could increase local investment. The aim is to use the commonly agreed priorities as a base point for identifying opportunities for Joint Venture projects.

⁷ Investment Motivation in Renewable Energy: A PPP Approach
<https://www.sciencedirect.com/science/article/pii/S1876610217322208>

⁸ Investment Motivation in Renewable Energy: A PPP Approach
<https://www.sciencedirect.com/science/article/pii/S1876610217322208>

⁹ Public-Private_Partnerships_for_Energy_Efficiency_Projects_A_Win-Win_Model_to_Choose_the_Energy_Performance_Contracting_structure

Public private partnerships offer increased opportunities into the energy market through access to finance, expertise, resources and shared risk¹⁰.

Joint Venture case study – Blueprint

Blueprint is a multi-award winning developer specialising in delivering sustainable regeneration projects. The joint venture is a partnership between Nottingham City Council and PfP Capital. The council bought a 50% share in the company to enable local priorities around sustainable development whilst pursuing a financial return.



Blueprint's Trent Basin development is a crucial phase of a major regeneration project and acts as a catalyst for change. The project provides around 500 contemporary, high quality, low-energy homes. Their vision foresees a new kind of sustainable neighbourhood with a distinct identity and a strong sense of place, underpinned by research and innovation.

A significant part of this innovation is arising from the work developed by Project SCENE's (Sustainable Community Energy Networks) consortia. The project was enabled by Innovate UK funding and the Energy Research Accelerator ERA. Project SCENE looks to accelerate the adoption of Community Energy Systems, a different way of generating and supplying locally generated heat and electricity to homes and commercial buildings. It aimed to explore and address the investment barriers behind some of the new technologies for delivering low-carbon energy systems. Currently, most of the necessary technologies are available but they are too expensive for consumers to invest in themselves and the business model is not in place that shows companies how they will make a return.

Blueprint were able to provide a real life development site for this research project allowing for long term research to be undertaken on the setting up, managing and effectiveness of the community energy network. As Blueprint has a pipeline of developments at Trent Basin it can provide some assurance that the network will be expanded as new homes are built.

People living in Trent Basin benefit from renewable energy being produced through a solar farm on-site. The energy generated through this is stored in the largest community battery in Europe, storing up to 2.1 MWh of energy and delivering 500kW of power. Local energy generated and stored on-site is managed by a community energy company which provides energy services to residents, including selling to the grid at peak times. Profits made by the energy company helps to cut energy bills for residents.

For more information about the homes, please visit

<https://www.blueprintregeneration.com/project/trent-basin-nottingham-waterside/>

<https://www.era.ac.uk/case-studies/trentbasin>

¹⁰ The Role of Public-Private Partnerships in Large-Scale Renewable Energy Projects



What is a Joint Venture and how does it differ to other partnership approaches?

Definition

The UK Government state *'that a number of different delivery models may be used by public bodies to deliver infrastructure and public services in conjunction with the private sector'*¹¹. This can include not-for-profit and third sector providers. One of these models is Joint Ventures (JV) where a public body and private sector partner partake in a commercial venture together. Public-public and other Joint Ventures are also possible.

In a Joint Venture, partners contribute resources to share the risks and benefits associated with the venture and a new business is created¹². The Treasury guidance raises the issue of differentiating the *'formation of a JV entity from purely contractual arrangements'*, which can be procured as public sector service contract¹³. This arrangement can be between two parties or a wider collective through a consortium.

A Joint Venture offers different possible arrangements with each partner contributing resources (e.g. land, capital, intellectual property, experienced staff, and equipment) to the venture. As a result, the risks and benefits associated with the venture are shared between the entities involved. A Joint Venture is not simply a delivery model to transfer the risk through the creation of an arm's length relationship and is more than contractual arrangements (e.g. provision of goods/services/concessions). This is a mutual partnership, which mobilises complementary objectives, resources and aims to capture long-term value. This can be considered for all stages: development, delivery as well as operations and maintenance, as each have very different purposes.

Through the identification of emerging energy market opportunities – an understanding of the wider picture across all regions can be developed, finding trends / demands which are relevant to numerous or all regions. The Local Enterprise Partnership Energy Strategies can be drawn on to assist with this. Where commonalities are identified, assets and operations can be combined to develop large-scale economically efficient projects. Larger scale projects can increase profitability and attract private investment. Additionally a large-scale project can be achieved through a collection of smaller project through a portfolio approach. A portfolio approach may enable less profitable/risky bodies of works to be integrated with the most commercial projects. This portfolio approach through a Joint Venture

¹¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf

¹²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf

¹³https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf



is one way to achieve the level of scale required to attract private investment and action to achieve both national and local carbon reduction targets.

Joint Ventures can help to support more sustainable infrastructure business models. The iBUILD Research Centre has identified five priority action areas to 'Close the Gap' to support more sustainable infrastructure and aims to promote opportunities from alternative sustainable business models¹⁴. These priority areas are:

1. Adopt a broader, integrated and more holistic appreciation of infrastructure
2. Enable greater action at the local scale that reflects the distinctive nature of place but also connects with the national level
3. Facilitate and capture all forms of long-term value
4. Deliver infrastructure more efficiently and with less waste by aligning organisational capabilities and applying circular economy principles
5. Accelerate uptake through practical action and demonstration

Joint Ventures can support these priority areas through enabling accelerated coordinated action at the local level, which reflects the context of the area and national policy objectives. It can incentivise a more integrated and holistic approach which increases local autonomy in planning, financing and delivery of energy infrastructure. Energy infrastructure has the potential to achieve and enable long-term value. The growing consideration for low carbon and renewable energy technologies is linked to the hitherto un-costed social, environmental and economic side effects of fossil fuels. Low carbon technology and infrastructure can enable sustainable economic growth and positively affect employment directly and indirectly¹⁵.

Private sector consideration to Joint Ventures

The private sector may seek to collaborate with the public sector as a route to de-risking their projects.

Moreover, the partnership model can deliver projects in combination with each other and/or in a portfolio approach to deliver cost efficiencies, stronger commercial performance, less disruption, appropriate scale and a less siloed delivery model.

¹⁴ <https://research.ncl.ac.uk/ibuild/2018finalreport/iBUILD-Report-web-compressed.pdf>

¹⁵ Investment Motivation in Renewable Energy: A PPP Approach
<https://www.sciencedirect.com/science/article/pii/S1876610217322208>

Public-Private Partnership Model

A long term partnership which allows a **solid platform**, upon which each partner can bring their **respective strengths**:

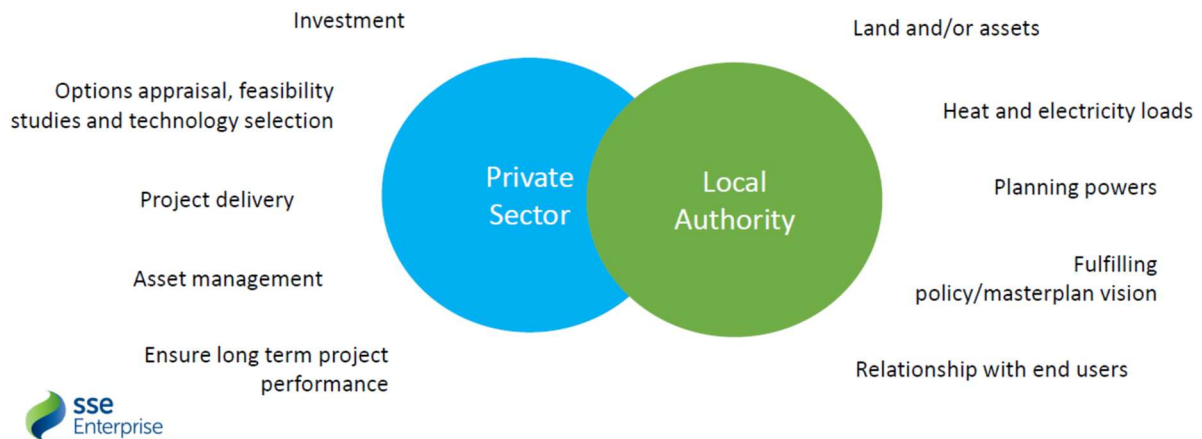


Figure 1: An example of the public and private sectors' complementary strengths (Courtesy of SSE Enterprise)

Types of “Delivery Model”

Insourcing

The first step is to determine whether there is a need for a Joint Venture, or whether the project would be better completed internally. ‘Insourcing’ is the process of delivery in-house and can be seen as pragmatic approach to increase efficiency and meet council objectives¹⁶. If there is the resource (time and money) and capacity (skill set) which can be used internally then retaining full internal control and risk to be considered. For more information on the benefits of insourcing, please view the APSE guide Rebuilding Capacity¹⁷.

However, if capital and/or risk is too high a partnership approach could enable a route to delivery.

Different partnership approaches

Partnerships can take on many different models and approaches depending on the local context. The purpose and aim of the Joint Venture is important and affect the choice of structure, which is used in order to deliver intended objectives. For JV options that require significant upfront capitalisation, the funding structure will need to be carefully considered in order to address State Aid concerns. Structural approaches that can be used¹⁸:

¹⁶ APSE Rebuilding Capacity: The case for insourcing public contracts

¹⁷ APSE Rebuilding Capacity: The case for insourcing public contracts

¹⁸ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf

- *Contractual partnering and concession arrangements with no corporate status.* Concession agreements can offer sufficient flexibility but need to be shaped well at the outset. This is suitable for clearly defined projects and for time-limited tasks. Whilst this approach offers great guarantees there is a trade off in flexibility compared to other models. PFI provides a process to find required funding for a project, not necessarily a delivery model.
- *Non-profit-distributing e.g. company limited by guarantee (CLG) and industrial and provident societies (IPSS).* This approach is common amongst housing associations, leisure and third sectors. It has no limit on participants and a similar board structure to CLS, enabling simple set-up costs unless it takes a more complex structure. An alternative model is Community Interest Companies (CICs) and charities are often used for Joint Venture transport companies and regeneration projects.
- *Community Interest Company (CIC) structure* - A special type of limited company, which exists to benefit the community rather than private shareholders¹⁹. This approach is low-cost and could support wider social aims of an energy project. For further guidance, please go to [here](#).
- *Company limited by shares (CLS)* - the most common form of JV entity. It is well recognised and accepted by the private sector. Shareholders' influence is linked to the proportion of shares held and the rights reserved to shareholders.
- *Limited Partnership (LP)* - a statutorily governed partnership registered at Companies House in which one of the parties has general liability with one or more having limited liability. Limited partners are passive participants – the structure is increasingly rare and typically only used for investment bodies.
- *Limited Liability Partnership (LLP)* – this creates a separate legal entity, which is a blend of a traditional company and partnership provisions. Its primary benefits are its separate legal personality and the tax transparency it gives partners whereby, for example, gains made in the LLP are taxed at the partners' prevailing rate. This can be good for local authorities who do not pay corporation tax. This form is increasingly familiar but is less familiar than a CLS. Councils cannot use an LLP directly under Localism Act powers, as it is not a company recognised for such purposes under the legislation and thus will need to rely on other statutory powers and purposes for its adoption – something that has been the subject of recent scrutiny in the Courts. The LLP structure can cause issues concerning the taxation treatment.

¹⁹ <https://www.gov.uk/government/publications/community-interest-companies-how-to-form-a-cic>



- *Energy Performance Contracts (EPCs)*

An agreement to deliver energy savings and/or energy generation. There are benefits to this approach^{20 21}:

- Guaranteed energy savings
- Reduction in maintenance and other costs
- Creating the opportunity for renewable energy generation and income from Renewable Heat Incentive schemes
- Reducing the impact of future energy price rises through significantly reducing energy use
- Improving the thermal comfort and creating a better working environment through improved lighting and reduced equipment failures
- Environment improving building performance
- Reputation enhancing

For further information on model contracts for EPCs related to the public sector in the UK, please click [here](#).

Partnerships for the purpose of setting up an energy supply company

There are different elements a local authority may wish to consider to the overall provision of energy, including generation, supply and transmission/distribution. This section focuses on the supply aspects. The purpose and aim of the Joint Venture is important to define well as it will shape the resulting development of the partnership. “For example if the primary purpose of the venture is to offer low cost energy to local residents suffering from fuel poverty, then a supply model such as a Fully Licenced Supplier where you have full control of the tariff may be the most appropriate”²². This is also dependent on other factors such as time and resource - including the substantial financial assurance requirements of OFGEM in relation to both customer interface and energy trading. A Joint Venture arrangement with a licenced supplier is therefore another potential route. Energy is a complex and highly regulated market and therefore due diligence is needed to appropriately assess which model to take to enable intended objectives and maximum benefit.

²⁰https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/395076/guide_to_energy_performance_contracting_best_practices.pdf

²¹ <https://sseenergyoptimisation.co.uk/our-solutions/energy-performance-contracts/>

²² <http://localpartnerships.org.uk/wp-content/uploads/2016/12/Local-Energy-options-guide-web-version-1.pdf>

Electricity supply specific Joint Ventures, which have been undertaken, include²³:

- Sleeved supply and power-purchase agreements
- Fully licenced supply model
- Licence exempt supply model
- Licence-lite supply model
- White label

Options	Fully licensed supply	Licence exempt supply	Licence-lite supply	Sleeved supply	White label supply
Limited Company	▶	▶	▶	▶	▶
Contractual partnership	▶	▶	▶	▶	▶
In-house	▶	▶	▶	▶	▶

▶ = Suitable ▶ = Not suitable

FIGURE 2. CORPORATE STRUCTURE OPTIONS FOR SUPPLY COMPANIES²⁴

When to consider a Joint Venture

Changes in national policy can lead to uncertainty or affect confidence in investing in long-term projects, particularly in areas like energy. Local authorities have the potential to alleviate uncertainty with long-term agreements. Current financial pressures for local government, due to a reduction in central funding, means the energy sector offers an interesting opportunity for either financial return or for delivering value to local priorities. When starting a Joint Venture partners have to make a decision on what level of involvement they wish to have within the process, the scale of activity and choice of operation. Examples of involvement metrics might be financial return, carbon saving, tariff control, delivering value for money by capping Internal Rates of Return (IRR). Additional considerations include the appetite for risk, which brings together the risk profile of the likely project(s) to be delivered through the partnership, and the public body's ability to understand, quantify and mitigate this risk.

It is important to know what the intended objectives of the project and partnership are in the initial planning and feasibility stage. When beginning the journey of establishing a project vehicle, such as a Joint Venture, the intended, or optimal lifetime for both the vehicle and the operation, or services to be delivered could be considered. For example, when a JV is created for a strategic infrastructure project, it may be established as an 'intermediary vehicle'²⁵. An assessment of risk and reward is

²³ <http://localpartnerships.org.uk/wp-content/uploads/2016/12/Local-Energy-options-guide-web-version-1.pdf>

²⁴ <http://localpartnerships.org.uk/wp-content/uploads/2016/12/Local-Energy-options-guide-web-version-1.pdf>

²⁵ HM Treasury. Joint Ventures: a guidance note for public sector bodies forming Joint Ventures with the private sector



necessary to establish which form of partnership is the best fit. Alongside this, is the consideration of the nature of the infrastructure and provision suggested, as some assets (e.g. heat networks) rely on an integrated approach to design, commissioning and operation to ensure optimum performance. Such an approach may lend itself to a longer-term partnership, which may also be favoured for other forms of energy packages (such as heat, private wire, battery, demand side management) where system integration and operation will be key. The types of risk to consider is discussed in more depth in 'Risks and mitigation'.

Financial opportunities and co-benefits

Public bodies have an opportunity to capitalise on locally tailored ventures; increasing local action on this agenda and enable investment in renewable generation to improve energy security, reduce carbon, improve air quality and lower energy bills. This in turn future-proofs local supply, supporting sustainable economic growth by encouraging inward investment. Joint Ventures could produce mutual benefits through grid balancing opportunities such as a more efficient route to ensuring capacity and capturing value from assets. Local networks need to adapt to support decentralised generation and storage, which Distribution Network Operators (DNOs) are acknowledging with the transition to Distribution System Operators (DSO) to reflect this highly dynamic energy system. Not only is localised implementation and management a necessary approach it brings with it an array of co-benefits. The benefits and strengths of local authorities engaging in local action include^{26 27 28 29 30 31}.

- Capacity to influence and raise awareness
- Install civic pride and organisational image
- Connections with an array of stakeholder and opportunities for collaboration
- Target cross-cutting themes to enable carbon reduction and cost savings
- Maintain motivation through direct action and delivery of services
- Increase employment through the low carbon sector
- Improve quality of life and the local environment
- Reduce uncertainty; increase resilience and energy security
- Enable long term planning and structural change
- Early action prevents regulation/forced action

²⁶ Fudge, S., Peters, M., & Wade, J. (2012). Locating the agency and influence of local authorities in UK energy governance. Surrey: Centre for Environmental Strategy.

²⁷ Webb, J, Hawkey, D & Tingey, M 2016, 'Governing cities for sustainable energy: The UK case' Cities, pp.28-35.

²⁸ Carbon Trust (2012) Local Authorities, Saving energy in local authority buildings

²⁹ Kelly, S. & Pollitt, M., 2011. "The Local Dimension of Energy," Cambridge Working Papers in Economics 1114, Faculty of Economics, University of Cambridge.

³⁰ <http://localpartnerships.org.uk/wp-content/uploads/2016/12/Local-Energy-options-guide-web-version-1.pdf>

³¹ <https://www.ashden.org/programmes/co-benefits>



- Coordinate multiple interventions to enable regeneration and sustain local economies
- Affordable and secure energy supply to public buildings to reduce budgetary pressures
- Support the international drive for decarbonisation
- Help meet council ambitions such as:
 - Innovation can offer income to assist with budgetary pressures with estimated margins of 2-4%
 - Improve the wellbeing of vulnerable residents and reduce fuel poverty
 - Support the low carbon economy and local job creation – manufacture, installation, operation and maintenance

Key Questions to consider (but not limited to):

- Internal
 - What benefits will this bring to the local authority?
 - Will it reduce pressure on resources?
 - What strategic aims does this deliver on?
 - What stakeholders need to be consulted to guarantee a full understanding of the Joint Venture?
 - What ability does the LA have to understand, quantify and mitigate risks associated with the project(s) it wants to deliver?
- External
 - What are the benefits to different local stakeholders?
 - What are the potential impacts locally?
 - In what way would a JV allow this to happen that other models would not?
 - Will this accelerate the transition to net zero emissions?
 - Will it support wider strategic objectives?

Funding/Investment options

Partners will have differing investment level thresholds. By combining or aggregating similar projects under one 'large scale' project portfolio approach, the investment threshold for many larger investors can be attained more readily, with the added benefit of potentially re-profiling or spreading risks (through diversity of the portfolio) to make investment more attractive and reducing transactional and administration costs³². Whilst projects maybe at various stages of development, the visibility of pipeline is key to attract investment. Furthermore, the increased 'volume of work' can lower project costs, increasing local low carbon economy and growth potential.

³²https://www.irena.org/documentdownloads/publications/irena_risk_mitigation_and_structured_finance_2016.pdf

Delivery through a portfolio can provide capex savings and increase revenue using complementary technologies and scopes. For example, delivering fibre at the same time as trenching for a heat network, delivering EV charging points and battery storage to use electricity generated by the heat network more intelligently or delivering building-side energy efficiency improvements to enhance the heat network's performance etc. An integrated and holistic approach could enable greater co-benefits. However, this requires understanding the relative risk and rewards of each project and reflection on how it is consistent or compatible with a public body's procurement strategy. It is important to consider exactly how a portfolio approach would alter each project to ensure it delivers the required objectives.

It can be that if local authorities funded certain project themselves directly, they may be limited in scope, and lack the ability to take on risks and the freedom that comes with certain models. Public-Private partnerships can support public organisations with budgetary constraints associated with participating in the energy transition³³. A range of sources and models of finance are required for different types of project and situations. Joint financing may include an array of partners including banks, bonds or self-funding. There can be an open approach to financing projects with the option of both professional investors/lenders as well as crowdfunding³⁴. Crowdfunding, or blended funding, can provide finance for the smaller project scale, while also offering competitive price and terms on larger projects³⁵. It can also be an effective way to engage with local citizens, community initiatives and smaller businesses or institutions. It is important to understand what different funding options are available at each stage of the project and the Local Authority's appetite for risk is key.

Legal and contract options

There are a variety of forms of legal partnerships admissible under English law, including 'general, 'unlimited' and 'limited' partnerships³⁶. As with appointing a partner, there are a range of considerations to be fully explored and evaluated before proceeding, many of which are covered in guides elsewhere, for example the HM Treasury's guidance note on Joint Ventures for public sector bodies³⁷:

- Risk management and allocation
- Ownership
- Taxation status
- Legal compliance
- Governance relationship (addressed in subsequent sections).
- Exit strategies
- Loss relief
- Residency of partner
- Profit extraction
- Capital allowances
- Accounting treatment

³³ Investment Motivation in Renewable Energy: A PPP Approach

<https://www.sciencedirect.com/science/article/pii/S1876610217322208>

³⁴ <https://www.sciencedirect.com/science/article/pii/S1364032117305099>

³⁵ <https://baumaninstitute.leeds.ac.uk/research/financing-for-society/>

³⁶HM Treasury. Joint Ventures: a guidance note for public sector bodies forming Joint Ventures with the private sector

³⁷HM Treasury. Joint Ventures: a guidance note for public sector bodies forming Joint Ventures with the private sector

A number of different contracts and other documents will define risk allocation and management, along with defining roles, in the Joint Venture. These should be clear, consistent and comprehensive.

Examples include³⁸:

- Concession agreement
- Shareholder agreement
- Design and construct contract
- Loan agreement/provision of finance
- Insurance agreement
- Supply agreement
- Guaranteed saving
- Shared savings
- Operation and maintenance agreement
- Energy Offtake agreement
- Guarantees/comfort letters
- Contract duration
- Repayment mechanism
- First Out

Risks and mitigation

Risks are part of developing innovative new structures and ventures. The key elements here can help to understand how to identify, evaluate, manage and price in risks at different stages of the JV process. Risk identification, assessment, mitigation and on-going risk management are all key considerations. Other risks include social acceptance/community support, administrative approval, spatial planning as well as Health and Safety.

All projects have risks associated with them. Successful projects have detailed plans for those risks; mitigating and providing response and contingency plans for possible and probable negative outcomes. Contractual obligations often include appropriate risk allocation, which is clearly defined and can entail potential financial risk due to inclusion of penalties or concessions to guarantee successful delivery³⁹.

- Technology Risk

There remains a risk with implementing innovative technology in the energy market. Technology and energy systems are moving quickly and while there will likely be a plurality of approaches there remains the risk of lock-in. This is outweighed by risks from BAU approaches and not acting now.

New technology such as smart meters can provide opportunities to increase local data and insight. Smart meters can offer an end to estimated bills and additional consumption data. When coupled with the right software and energy systems architecture, this provides the potential for services such as time-of-use tariffs and allow better prediction of future consumer patterns. Better understanding of demand can reduce supply-side risks. In addition, the Clean Technology Fund (CTF) aims to find the

³⁸ Carbonara and Pellegrino, 2018. Public-private partnerships for energy efficiency projects: A win-win model to choose the energy performance contracting structure <https://www.sciencedirect.com/science/article/pii/S0959652617321492>

³⁹ Investment Motivation in Renewable Energy: A PPP Approach <https://www.sciencedirect.com/science/article/pii/S1876610217322208>

‘tipping point’ for new technologies to reach market threshold: on average mobilised £7 from investment partners for every £1 of finance spent⁴⁰.

- Reputational risk

It is important to consider the governance structure of a Joint Venture to minimise the risk of the JV making decisions/acting in a manner contrary to the public interest and wider policy objectives. The impact of an unsuccessful venture can potentially affect appetite for others to work with the local authority. If an unsuccessful Joint Venture is named to be associated with its local authority participant ‘the public sector parent will need to ensure it can insist on a [name change] of the JV if it ceases to have a significant interest in the entity’.⁴¹

- Legal risk⁴²

Joint Ventures typically involve complex legal, operational and commercial elements thus local authorities should ensure they have access to appropriate professional legal and financial advice, and adequate capacity to manage the process when setting up a JV.

- Compliance

There can be the possibility of financial penalties if compliance is below standard therefore robust/secure processes are required to reduce risk. In-house lawyers within a local authority would be the first source of guidance. If an authority does not have the necessary powers to ensure compliance before developing a JV further, it is important to assess ‘whether obtaining the necessary powers is desirable or feasible within a reasonable period’⁴³.

- Capacity to deliver

The whole process, from identifying and characterising the potential opportunity from a Joint Venture, to establishing and then running it, requires a range of skills, attitudes and knowledge bases to work effectively. A critical evaluation is necessary of the required time and resources for different types of Joint Ventures. Areas of capacity to consider⁴⁴ include:

- *IT Services and systems* – operating or outsourcing necessary computer infrastructure, data sharing and storage, systems configuration and maintenance.

⁴⁰https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/813656/190701_BEIS_Green_Finance_Strategy_Accessible_PDF_FINAL.pdf

⁴¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf

⁴² <https://ppp.worldbank.org/public-private-partnership/sector/energy>

⁴³https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf

⁴⁴ <http://localpartnerships.org.uk/wp-content/uploads/2016/12/Local-Energy-options-guide-web-version-1.pdf>

- *Legal and procurement services* – important to understand the barriers stated above and the options to ensure state aid, procurement and tax compliance. Specific legal advice is important before committing to a delivery model.
- *Staff* - internal or external capacity for set up, construction, delivery, ongoing services, maintenance, contract management, measurement, business development, design, feasibility, commercial and legal work associated with growth. This may require additional locally tailored education to a particular energy area related to a venture or series of Joint Ventures. Loss of key personnel is an ongoing risk.
- *Consultancy services* – Initially external support can be required for specialist knowledge to support with Joint Venture development, for example around modelling and feasibility studies
- *New technology* –familiarity, competence and technical expertise include market and policy change

Capacity to deliver a Joint Venture is also dependent on knowledge. Local knowledge will identify challenges and opportunities to joint energy ventures and with it, tailored solutions.

When considering a Joint Venture, local authorities should satisfy themselves that they have the requisite legal power to enter a JV entity for the desired purpose. This includes assessing the following⁴⁵:

- Legal powers to participate in and cover the business activities of the JV entity
- Improper purpose or unlawfully delegating its powers
- Available finance to spend on the JV, which have been properly approved and provided with the necessary powers, related to expenditure
- Compatible with other policy/legal requirements

The risk and needs of the Joint Venture will differ depending on the specific context of each project. Therefore, while there remain overarching risks and barriers, the ability to tailor the approach to individual requirements will be necessary for successful delivery⁴⁶.

There are a number of barriers to private-public partnerships in the low carbon economy⁴⁷. Significant external factors that can effect success of delivery, are timing and outside factors which are not within the project's control⁴⁸. The timing of the project will be affected by the investment environment, technical and construction challenges and political approval. The timing is to be considered along with the coincidence of changes in market structures and mechanisms, regulatory reform and policy/legal

⁴⁵https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf

⁴⁶ <https://ppp.worldbank.org/public-private-partnership/sector/energy>

⁴⁷ <https://www.sciencedirect.com/science/article/pii/S1364032117305099>

⁴⁸ The Role of Public-Private Partnerships in Large-Scale Renewable Energy Projects



changes. Other outside factors the stability of the economy and variability factors due to unknowns. Additionally, if timing of expected returns is outside of expected timescales this could create additional financial pressure. Factors will vary between delivery of services, delivery of a project, or delivery of the JV project as a whole.

Internal technical and financial factors can limit public-private partnerships. Technical barriers include; fear of technological lock-in due to rapid technological changes, technological complexity and risk of long-term performance particularly around new technologies or innovative approaches. Financial barriers include; limited data sharing, fluctuation in interest rates, high discount rates on future savings and the need for rapid market development to support investment in high-risk finance.

Development of a business case for your energy project

Business case and detailed planning

A local authority, like other public sector bodies, can discuss required governance procedures and processes to follow with its internal departments and/or HM Treasury, at an early stage, raising any novel/contentious/repercussive proposals/JVs likely to fall outside delegated approval limits⁴⁹.

As part of this process, partners can complete a detailed proposal including:

- Transaction costs
- Future dilution
- Risks and responsibilities borne by the local authority
- 'Director' responsibilities
- Exit and/or Buy-Out
- Dispute resolution and deadlock

⁴⁹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf

At this stage partners can examine the affordability of the JV option ‘ensuring that the projected publicly funded capital and operating expenditure forecast to be needed to deliver the aims and objectives detailed in the strategic case are, year by year, covered by the relevant budgets allocated by the public sector responsible’⁵⁰. A full business case and assessment around the principles set out in HM Treasury’s Green Book and associate guidance such as the 5-case model⁵¹ (and in most cases through a competitive procurement process) will greatly assist with the process of creating a sustainable Joint Venture. Public sector procurement will also assist with co-benefits of the Joint Venture with the implementation of the Social Value Act⁵² in selecting partners or suppliers.



The Greater Manchester Combined Authority (GMCA) Research Team have developed a cost benefit analysis (CBA) methodology that articulates the fiscal, economic and social value of interventions⁵³. The CBA tool can be used to support a business case for a Joint Venture, and identify the wider value that may be realised through delivery, and where that value might be captured. For more details and to access a version of CBA toolkit, please visit

<https://www.greatermanchester-ca.gov.uk/what-we-do/research/research-cost-benefit-analysis/>

Key steps in establishing a JV⁵⁴ are discussed in the following section. The following steps might not necessarily be seen as sequential; it is important to consider how each interplays with the other to prevent key issues being overlooked.

Initial planning and Straw-man proposal

This will depend the origin of the venture; whether it is a public sector proposal to private sector or a private sector proposal to public sector. There is significant potential and interest from private sector to approach the public sector to be involved in commercial ventures. Therefore, it is important to know the priorities and objectives of the local authority as well as other potential parties.

⁵⁰https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf

⁵¹ <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

⁵² <https://www.gov.uk/government/consultations/social-value-in-government-procurement>

⁵³ <https://www.greatermanchester-ca.gov.uk/what-we-do/research/research-cost-benefit-analysis/>

⁵⁴ HM Treasury. Joint Ventures: a guidance note for public sector bodies forming Joint Ventures with the private sector

- Is there a sound business or service delivery rationale that is commercially viable and likely to offer best Value for Money to the public sector and meet the organisation's objectives for this energy project(s)? Value for money will in part be determined by the source of funds used and the other party will be using and your respective expectations of return.
- What are internal and collaborate limitations for delivery?
- A Straw-man proposal provides a sample draft to communicate the advantages and disadvantages of an idea. This enables discussions to solve potential problems and generate different approaches before developing a more detailed and complex business case.
- What authority/power does the Local Authority have to act?
 - Consider using a competitive (likely regulated) procurement⁵⁵
 - Clarify any issues before engaging formally with the private sector
 - Liaise with HM Treasury (or other appropriate government bodies) and consider obtaining own professional advice

Selecting the right structure

- There is both the need for a legal structure for any delivery vehicle, and a commercial structure – both of which need to be approached carefully to reflect the intended strategic outcomes and local context
- Classification and accounting treatment
 - i. Is the JV considered a public or private sector body in the UK's national accounts?
 - ii. It is more than just how the structure is treated. If the LA is buying all the power under a Long Term Power Purchasing Agreement from a JV it may still be required to be reported on its balance sheet for the full value of the energy it purchases.

There are a number of considerations relevant to deciding whether a new legal entity could be created for a Joint Venture and what sort of entity as well as how it is financed and managed.

A project may be deemed to require a Special Purpose Vehicle (SPV) due to risk, liability, the demands of the market are as relevant as scale or when the project is expected to continue long term. This can be owned equally or split into percentages. It would need to be decided what type of legal structure, established control and governance structures for the JV best protect the local authority's objectives. As discussed in previous section, for more information refer to different partnership approaches as well as legal and contract options.

⁵⁵https://www.local.gov.uk/sites/default/files/documents/Energising%20Procurement%20National%20Energy%20Procurement%20Category%20Strategy%20-%20FINAL_0.pdf



Selection of JV partner(s)

Before starting the selection process, local authorities need to make sure they understand the type of contractual requirement is suitable to achieve the desired outcome. Partner selection is fundamental to the Joint Venture process, and to that of any partnership (informal and formal). For the purposes of a Joint Venture, this document is largely focussed on private sector partners for a public-private basis.

Stakeholder mapping is required at the proposal stage of developing a JV (and its intended delivery focus) to ensure all those required to make it a success are identified. If a JV fits the delivery model required then stakeholders (involved or not) can be engaged to ensure resource (technology, delivery, PM, finance) and to ensure all impacts have been captured or mitigated. Once a need for a Joint Venture is confirmed, potential partners with similar or aligning goals need to be identified, justified and agreed.

To ensure that potential partners are a “good fit”, there needs to be high levels of commonality in the objectives, strategy for delivery and basis of trust between the organisations involved; they need to be compatible with the same desire and commitment to success of the project(s).

Successful public-private partnerships relationships need to be flexible, targeted, stable and predictable⁵⁶. There is a strong need for mutual understanding of different partners perspectives as the requirements and incentives will differ. The parties often have a ‘shared vision’ about the objectives for a JV with mutual or complementary benefits. Policy stability offers the partnership long-term security and ‘if the public sector body is not able to provide a satisfactory longer term framework within which the JV is able to operate, the JV and its business may struggle to meet these changing objectives’⁵⁷.

Finding potential partners for a Joint Venture will depend on the nature of the partners that are required i.e. Local Authority, private business. Nottingham City Council’s Energy Services for example already have a range of finance partners and supply partners, which they regularly work with.

Early consideration of the impacts and intended aims of delivery is key to whether or not JVs have the potential to meet the partnership’s overall objectives

Option appraisal

From the outset, it is important to recognise that how a partner is appointed can affect the appointing body, the resulting JV and the surrounding market(s). It is important to give due regard to considerations such as:

⁵⁶ <https://www.sciencedirect.com/science/article/pii/S1364032117305099>

⁵⁷ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf

- Track record – there are unfortunately organisations out there who are engaged in nefarious activities, fraudulent in their dealings, or have a poor track-record on delivery – and many such organisations come back in different guises
 - Conflicts of interest
 - Compliance with competition and other legal requirements
 - Procurement regulations
 - Taxation
- Carry out an appropriate investment appraisal and feasibility study to consider other potential delivery models e.g. concessions, contractual service/supply contracts and PFI, to determine if the delivery model that will achieve a financial return and long term benefits to the local authority. A project and its financing cannot be separated, as finance often dictate how a project is delivered. An example being if a JV has to rely on bank finance rather than 100% equity finance, the project model and feasibility hurdle will be very different.
 - Important to examine the difference between a JV for development, a JV for delivery, a JV for operations and maintenance, or whether a JV for all stages of the project life is the best option.
 - Understand the interplay between financial return, legal structure, technical design and social impact – how does one affect the other? What is the balance being sought?
 - Consider the appointment of specialist financial, legal and technical advisers
 - Effective soft market testing - the market is ever changing and whether a local authority want to get the best out of it, soft market testing is essential.

A significant level of co-ordination is required to successfully implement a Joint Venture and make it work. Transparent and structured management is recommended to help facilitate joint-venture work. The treasury state that ‘the business of managing the JV can be done by the management board of the JV itself and not taken outside it. If there is insufficient policy stability or excessive public sector intervention, the JV may not be a success’⁵⁸. If possible, it can be advantageous for the project lead to be relatively neutral in terms of affiliated organisational investment in the project(s) in order to better assist with any areas of conflict between stakeholders; should they arise during the course of the project.

Additionally, local authorities have to demonstrate transparency with public spend and different levels of accountability are required for certain financial thresholds. Procurement is often part of internal Local Authority governance process.

⁵⁸https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/225321/06_joint_venture_guidance.pdf

Launch and manage a JV

Agreement will have been reached regarding the structure and roles of the JV throughout the project including⁵⁹:

- How will the project(s) proceed
- Project design and data collection if procured under the JV (successful partnerships require open communication and data sharing⁶⁰).
- Project management/lead
- What is the escalation process to project delivery (construction, operation and maintenance)
- What are the timescales involved
- Identify and clarify funding/finance
 - Tender framework
 - Ownership and shares
 - Rate of return required
 - Order of works and associated payment schedules
 - Payment terms and process
 - Defined outputs i.e. Power Purchasing Agreement
 - Contract management - Monitoring and verification of performance

Conclusion

The documents aims to support national, regional and local ambitions, providing a guide to:

- Securing project investment
- Enabling project development
- Enhancing and accelerating delivery of wide range of energy infrastructure projects
- Integration of energy projects (generation, grid constraints, mobility, heat and in particular, digital solutions)

If a Joint Venture is the route to take, establishing a clear decision-making process is a key consideration for enabling successful delivery. Additionally, successful contract management is critical and an area where many energy projects fail to deliver against their ambitions.

⁵⁹ Investment Motivation in Renewable Energy: A PPP Approach
<https://www.sciencedirect.com/science/article/pii/S1876610217322208>

⁶⁰ The Role of Public-Private Partnerships in Large-Scale Renewable Energy Projects



Further access to skills and capabilities in local energy projects

Local authority Joint Ventures can be supported through the five regional Energy Hubs. Each Hub has a range of skillsets within their officers that can be accessed to support energy projects and ventures. Effective transfer and utilisation of knowledge, skills and experience is essential. The [BEIS local Energy Teams' Huddle](#) space can support Local Authorities and Local Enterprise Partnerships. This will continue to support the dissemination of best practice and ability to capitalise on the recent LEP energy strategies.

There may be some national support for Joint Ventures in this sector through the Green Finance Institute, which has set out to launch 'a series of mission-led coalitions that will convene multi stakeholder groups to address the barriers to greater and more rapid deployment of green capital. These projects will help to accelerate private investment through tangible actions that will unlock supply and demand and encourage green investment'⁶¹.

This documents aims to help increase Local Authority and private investment in energy systems, for example through a portfolio approach or large-scale infrastructure project such as heat networks. The scale of action necessary will require significant investment and a Joint Venture is one way to achieve multiple co-benefits simultaneously from this transition. Whilst this is a new approach however, the government welcomes action by local authorities and the private sector on these issues⁶². The City Leap Prospectus initiative⁶³, led by Bristol City Council, is an example of the innovation taking place in local government to leverage investment and increase delivery in energy projects: bringing together a large number of projects of differing size into a single capital-raising prospectus to unlock private finance to deliver against local priorities.

The creation of this document has identified gaps in the provision of support for energy joint ventures. These gaps will be taking forward in future work and serve to highlight the need to support the potential growth of this agenda; particularly through collaboration and partnership working.

⁶¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/813656/190701_BEIS_Green_Finance_Strategy_Accessible_PDF_FINAL.pdf

⁶²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/813656/190701_BEIS_Green_Finance_Strategy_Accessible_PDF_FINAL.pdf

⁶³ <https://www.energyservicebristol.co.uk/cityleap/>



Joint Venture energy supply options and Nottingham case study

- White labels⁶⁴

Offers public bodies a bespoke relationship with an approved supplier with the opportunity to create a locally owned brand with local recognition to increase switching. This approach provides revenue to the licenced supplier minus commission to the Council, which it can reinvest as it chooses.

- Fully licenced supply model

Provides greater independence to set costs, tariffs and overall objectives i.e. becoming a not for profit. Relatively low upfront cost to obtain licence but high on going costs. However, legally and financially responsible for all associated risk. Steps to becoming a supplier include⁶⁵; acquire a licence, hiring of staff, set up IT systems, secure trading arrangements, contract for services, controlled Market Entry, marketing and competing for customers.

- Sleeved supply⁶⁶

Directly procure energy from a non-local source through a Power-purchase-agreement (PPA), which is often a fixed price agreement for 5 to 15 years. A third party manages the risk of supply and imbalance; they take on the responsibility for the agreement and transfer under the Energy Act.

<https://www.luxnovapartners.com/blog-posts/2019/2/12/Inp-and-cornwall-publish-guidance-on-heat-network-electricity-revenues>

Fully Licenced Supplier: Robin Hood Energy (Nottingham City Council)

As the UK's first local authority – owned energy Supply Company, Nottingham City Council's Robin Hood Energy is a not-for-profit founded with the mission to provide low cost energy to all households. Established in 2015, the company has shaped a unique offering to customers including:

- ▶ cheapest tariff for residents of Nottingham City Council
- ▶ a "no private shareholders, no director bonuses" model
- ▶ monthly billing and no exit fees
- ▶ energy saving tips
- ▶ UK based call centres
- ▶ a commitment to low tariffs and tackling fuel poverty

As a result of following the fully licensed supply route, Robin Hood Energy has been able to tailor its offering to the needs of its local community and provide a unique alternative to the Big Six energy companies.



⁶⁴ <http://localpartnerships.org.uk/wp-content/uploads/2016/12/Local-Energy-options-guide-web-version-1.pdf>

⁶⁵ <http://localpartnerships.org.uk/wp-content/uploads/2016/12/Local-Energy-options-guide-web-version-1.pdf>

⁶⁶ <http://localpartnerships.org.uk/wp-content/uploads/2016/12/Local-Energy-options-guide-web-version-1.pdf>

Additional references and energy case studies

Available resources for more detailed information and examples

- [Glasgow City Council and SSE](#): 3MWe wind turbine
- [Multifuel Energy](#) - Wheelabrator Technologies and SSE: 68MW Energy from Waste facility
- [GRIDSERVE](#) Heralds Subsidy Free Solar in partnership with Warrington Borough Council
- "[Heat Networks: Procuring Finance](#)" by Womble Bond Dickinson
- "[Financing Heat Networks in the UK](#)" by Grant Thornton and Hermetica Black
- BEIS Heat Networks Investment Project [Application Guidance](#)
- DECC [Guide to Energy Performance Contracting Best Practices](#)
- [An Introduction to Public Procurement](#) by OGC