

Technical Note

To Michael Jenkins	Transmittal No x	Project number x	Client Bridgend
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SPV Annualised Costs

In order to operate the Bridgend District Energy Network (BDEN), a number of annual activities are required to be undertaken as summarised in the following table;

Role	SPV	Contractor	Other ¹	Not Applicable ²	Responsibilities
Promotion	✓				<ul style="list-style-type: none"> Defining physical nature of the project Commissioning studies to establish the viability of the network. Identifying funding options Defining the scale and timing of demand for services Publicising the opportunity and communicating the benefits to key stakeholders Attracting develop
Customer	✓	✓			<ul style="list-style-type: none"> Agreeing terms of heat purchase agreement (e.g. price formula, service levels, carbon intensity) Paying an agreed price for the heat service Operating a secondary and/or tertiary network in accordance with the terms of the supply agreement (e.g. maximum return temperature)
Governance	✓				<ul style="list-style-type: none"> Assigning roles and responsibilities Setting overall direction and objectives for the elements of the network within the remit of the governing body. Overseeing commercial behaviour and high level performance Taking high level commercial decisions Monitoring performance standards
Regulation			✓		<ul style="list-style-type: none"> Monitoring performance standards Resolving disputes between operators and customers Enforcing fair pricing
Funder				✓	<ul style="list-style-type: none"> Providing funding or arranging sources of finance, if satisfied that the scheme represents an acceptable risk Signing funding agreements, depending on the type of funds being provided (e.g. debt or equity) Obtaining appropriate security from the beneficiaries of funding.
Ownership	✓				<ul style="list-style-type: none"> Securing an income stream to match its responsibilities and to cover its risks

¹ Other Roles are external to the SPV and Contractor. These could have a future impact to the operation of the DEN but are currently unknown

² Not Applicable Roles have been defined as such as they will not impact the operation of the BDEN once operation has commenced on the currently proposed network. Future works may yet be impacted by these activities.

Role	SPV	Contractor	Other ¹	Not Applicable ²	Responsibilities
					<ul style="list-style-type: none"> Insuring or procuring insurance for the assets Ensuring the assets are maintained and components replaced when life expired Contracting with installers, maintenance providers, and service companies (where the Asset Owner does not undertake such activities itself)
Developer				✓	<ul style="list-style-type: none"> Delivering the completed site, including secondary and tertiary heat networks In some projects, making financial or in kind contributions to the heat network delivery body Demonstrating to purchasers or tenants of units on the Development that the network has suitable governance structures, acceptable contract terms and continuity of heat supply.
Land Ownership				✓	<ul style="list-style-type: none"> Granting leases for energy centres or substations Granting easements for routing of buried pipes Providing rights of access for installation, operation maintenance and replacement of plant and equipment
Landlords				✓	<ul style="list-style-type: none"> Ensuring building occupiers are connected to the heat network. Controlling access to maintain the secondary and tertiary networks, including ensuring that tenant leases reserve the necessary rights of access. May include insuring some (e.g.. secondary and possibly tertiary) network assets. May include maintaining and replacing the tertiary network assets for rental tenants Where applicable, undertaking relevant Tenant Consultations
Installation				✓	<ul style="list-style-type: none"> Installing a network which complies with the specification. In some projects, commissioning networks and connecting new customers Installing network extensions
Operation		✓			<ul style="list-style-type: none"> Ensuring that heat of suitable quantity and quality (e.g. temperature) is delivered to customers Where relevant, complying with the requirements of any electricity export licences or power purchase agreements. Ensuring performance standards are met Undertaking maintenance, repair and (in some cases) replacement works Reporting to customers, landlords and the Governance body
Metering and Billing		✓			<ul style="list-style-type: none"> Procuring heat (and sometimes power and cooling) delivery Metering Billing Undertaking price reviews Attracting and securing new customers Collection of revenues Managing customer debt and default Communicating with customers
Supplier of Last Resort	✓				<ul style="list-style-type: none"> Taking over Operation and Sale of Heat responsibilities where required (including in some cases taking on Asset Ownership) Arranging for replacement of Operator and/or Sale of Heat roles.

These terms have been taken from the BEIS Detailed Project Development Guidance and have been assigned based on the proposed procurement strategy being used for Bridgend DEN.

For BDEN, it is envisaged the SPV will outsource the functions of the Operation and Metering and Billing. The roles of Customer and Regulation will impact the SPV but should not incur standardised annualised costs. A number of roles should not incur annualised costs and have been marked as Not Applicable.

The remaining roles of Promotion, Governance, Ownership and Supplier of Last Resort will require resource to be assigned in order for the SPV to function successfully. These roles have been defined below.

Promotion

In the context of the BDEN, the Promoter role is required to successfully develop and extend BDEN to new customers. Support for the champion at the leadership level will be needed to secure the necessary approvals.

As part of the role of promotion, the party:

- Defines the scale, nature and phasing of demand for services and the physical nature of the project to meet it
- Arranges studies to establish the viability of the network
- Identifies funding options
- Attracts developers, investors, and operators
- Is accountable for the progression of the scheme to delivery and operation
- Has a time limited interest in the scheme which maps to the project stages
- Intervenes when project stalls to solve problems
- Responsible for stakeholder engagement and is often the first point of contact for external queries, communication and advocacy for the scheme

The first tasks are the scoping of an extension project and the commissioning of studies to determine viability of a project.

Governance

The Governance role includes setting objectives, prescribing policies and rules of conduct and overseeing performance.

These objectives, rules and policies will need to be prescribed by the contract(s) under which the network is operated. They may be promoted through wider stakeholder engagement in project direction.

Ideally, the Governing Body should ultimately be accountable to a wider set of stakeholders.

Often the governing body is specifically set up to oversee the operation of the heat network with representatives from key stakeholders, including but not limited to, the operator and the customers.

The role of governance should include:

- Assigning roles and responsibilities to parties. This function is initially undertaken by the Promoter, but once the heat network is set up it falls to the governing body to maintain and develop the heat network as conditions change and contracts come up for renewal. This would include, for example, the appointment of an operator when an existing operator's contract expires.
- Setting overall direction and objectives (for the elements of the network within the remit of the governing body). This might include objectives for network growth or the strategy for decarbonising the heat supply.
- Overseeing commercial behaviour of participating parties. This may take the form of agreeing to proposed tariff changes for example.
- Monitoring overall performance of the network, escalating and facilitating resolution of issues with relevant parties to rectify poor performance. This could include the receipt and review of network performance monitoring reports.
- Taking high level commercial decisions, such as the procurement of alternative operators and agreeing maintenance schedules.

The main CSF for the Governance role is a clear and effective organisational structure which is adequately resourced, has the necessary powers of direction and is representative of the parties and key interests on which the success of the network depends.

Ownership

The Asset Owner owns the physical assets of the network. Ownership could be split between different classes of assets.

The role of asset ownership should include:

- Securing an income stream to match its responsibilities associated with ownership of its assets
- Insuring, maintaining and replacing and enhancing its assets
- Contracting with installers, maintainers, and service companies (where the Asset Owner does not undertake such activities itself)

The main CSFs for the Asset Owner are access to funding streams which will cover the cost of owning, maintaining and replacing the assets and provide a return on investment which meets the organisation's financial performance (i.e. hurdle rate) requirements.

With BDEN, major capital assets have been planned for replacement at end of Economic Life. The Asset Owner shall ensure that adequate technical and financial provision is available to facilitate planned replacement.

Supplier of Last Resort

Since heat is not regulated like gas or electricity, it is best practice to make intentional provision for a "Supplier of Last Resort" (SoLR). The Supplier of Last Resort role involves providing heat to the customers if the scheme's provider is unable or no longer required to do so.

The SoLR's responsibility is triggered, almost by definition, by an unplanned event that requires a rapid adoption or re-procurement of the supplier role from the appointed Supplier. Also almost by definition, the SoLR is likely to inherit a network in some distress, which might be technical, organizational, financial or a combination of all three.

A well-prepared SoLR would have in place an ability to take rapid control of the situation to ensure a minimum disruption to customers' heat service, such as step-in rights and recovery provisions in the relevant contract with the Supplier which can be triggered automatically, as well as some form of insurance or guarantee that can be drawn upon to fund any immediate financial costs which may be incurred.

A related, but different situation is the situation which arises at the end of a Concession Contract period. The contract would make provision for reversion of assets and of supplier responsibilities to the Employer, who would be expected to have made arrangements for the orderly incorporation or procurement of a new supplier prior to the end of the Contract.

The role of supplier of last resort should include:

- Monitoring system performance and Supplier viability to maintain an accurate risk judgement of the SoLR's responsibilities being triggered.
- Taking over operator and retailer responsibilities where required (including in some cases the purchasing of assets)
- Arranging for replacement of operator or retailer roles,
- Potentially raising finance to continue / repair the existing system.

The main CSFs for the SoLR role are

- Adequate step-in rights and contingency arrangements for when an event which triggers the need for the supplier.
- Access to resources and capabilities to fulfil the supplier role or to arrange for its provision by another party.

Annualised Value

Based on the roles assigned to the SPV, as detailed above, the following annualised costs have been developed;

Activity	Role	SPV Resource (days per month) £21,500 of budget is allocated to cover these activities in the Financial Model	External Resource Budget is specifically allocated for these activities in the Financial Model
Supporting new connections	Promotion	1	
Contract Performance	Governance	4	
Annual Accounts	Governance	0.5	External Audit - £5.392
Minor Asset Replacement	Ownership	2	
Major Asset Replacement	Ownership	0	
Insurances	Ownership	0	Insurances - £6,779
Supporting gaps in contract	Supplier of Last Resort	0	
Undertaking emergency operation	Supplier of Last Resort	0	
TOTAL		7.5	£12,171

A total budget of £33,740 per year (indexing annually) has been included within the financial model to cover the activities identified in the table above.

Based on a blended whole time equivalent employment cost of £45,000, the day cost of for the time identified in the SPV Resource column is £200 accounting for leave and public holidays. The above assessment identifies a need of 7.5 days per month, equating to an annual cost of £18,000. The budget included in the Financial Model for these activities is £21,569 which leaves a contingency of approximately £3,500 per year. This equates to an additional 17.5 days across the year or 1.5 days per month.

The blended cost of employment recognises that the activities are a mixture of administrative and management activities.