

This document relates to the Heat Networks (Scotland) Bill (SP Bill 64) as introduced in the Scottish Parliament on 2 March 2020

Heat Networks (Scotland) Bill

Financial Memorandum

Introduction

1. As required under Rule 9.3.2 of the Parliament's Standing Orders, this Financial Memorandum is published to accompany the Heat Networks (Scotland) Bill, introduced in the Scottish Parliament in 2 March 2020.
2. The following other accompanying documents are published separately:
 - Explanatory Notes (SP Bill 64-EN);
 - a Policy Memorandum (SP Bill 64-PM);
 - statements on legislative competence by the Presiding Officer and the Scottish Government (SP Bill 64-LC).
3. This Financial Memorandum has been prepared by the Scottish Government to set out the costs associated with the measures introduced by the Bill. It does not form part of the Bill and has not been endorsed by the Parliament.

Context

4. The Programme for Government (PfG) 2019-2020 included a Heat Networks Bill in this year's legislative programme¹. The purpose of the Heat Networks (Scotland) Bill is to encourage the deployment of more heat networks in Scotland.

¹ Protecting Scotland's Future: The Government's Programme for Scotland 2019-20, the Scottish Government, 3 September 2019.

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5. Heat networks are a form of infrastructure consisting of insulated pipes and energy generation which supplies heat, most commonly in the form of hot water, to homes and non-domestic premises, including businesses and the public sector. Heat networks can use a variety of heat sources (e.g. CHP, gas boiler, heat pump, solar thermal) which have varying degrees of carbon intensity. Heat networks are often more efficient than individual fossil fuel heating systems, and can also be run fully from renewables or recovered waste or surplus heat sources where appropriate.
6. Emission savings are therefore dependent on the fuel mix used for each heat network and the heating system that they are replacing.
7. Following the passage of the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, Scotland is required to reach net-zero greenhouse gas emissions by 2045, with interim reductions of 75% required by 2030, and 90% by 2040².
8. The Bill will contribute to this as based on evidence gathered by KPMG in 2019³, it was estimated that the proposals could result in an additional 6.2 TWh of heat being supplied by heat networks by 2050. If this heat was currently being supplied by gas boilers, by moving to a heat network there is a maximum carbon saving of 23%, which approximately equates to a 0.3 Mt saving in carbon emissions per year.
9. Additionally, it will contribute towards the Scottish Government's target that 50% of all energy consumption comes from renewables by 2030⁴. In 2018, it was estimated that Scotland produced enough heat from renewable sources to meet 6.3% of non-electrical heat demand⁵.

² Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, the Scottish Parliament, 25 September 2019.

<http://www.legislation.gov.uk/asp/2019/15/contents>

³ These estimates are based on evidence gathered by the KPMG that was contracted for the purposes of Financial Memorandum development. Further detail is provided in para: 24 - 31, as well as experimental heat network statistics from the Department of Business, Energy and Industrial Strategy.

⁴ Scottish Energy Strategy: The Future of Energy in Scotland, the Scottish Government, 20 December 2017.

⁵ Update on Renewable Heat Target and Action – 2019, the Scottish Government, 29 October 2019.

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10. The Bill will also fulfil recommendations made to the Scottish Government by the Competition and Markets Authority (CMA) in July 2018, that the heat network sector should be regulated ahead of its expected growth⁶.

Structure of Financial Memorandum

11. Given the number of regulatory elements introduced within the Bill, the financial implications for each element have specific considerations particular to those measures and the bodies involved with delivery. Additionally, due to the need to retain flexibility in the new regulatory system, the Bill introduces a number of delegated powers which may have financial implications and as a result there will be a need to develop subsequent processes and guidance. Those are explored in Part 1 of this document.

12. This document is designed to explore the cost implications of the Bill as follows:

- Part 1 – Delegated Powers
- Part 2 – Heat Networks Licences
- Part 3 – Heat Network Consent (including Transfer Scheme provisions)
- Part 4 – Heat Network Zones
- Part 5 – Heat Network Zone Permits
- Part 6 – Powers of Licence Holders
- Part 7 – Building Assessment Reports
- Part 8 – Overall Financial Implications of the Bill.

13. Each Part examines the implications of the Bill's provisions on the Scottish Administration, local authorities, and other bodies, individuals and businesses. Furthermore, the document includes "Analysis of the Financial Implications" sections to provide a detailed overview of the methods used

⁶ Heat Networks Market Study: Final Report, the Competition and Markets Authority, 23 July 2018.

https://assets.publishing.service.gov.uk/media/5b55965740f0b6338218d6a4/heat_networks_final_report.pdf

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to estimate costs on different persons and to discuss similar examples (also referred to as proxies⁷) used in the analysis. For ease of discussion, all of the costs in the analysis sections are presented in 2019 prices.

14. Following the “Analysis of Financial Implications” sections, the document also presents the overview of the financial implications in nominal prices across the first 10 years following the Bill receiving Royal Assent. To demonstrate real costs as the time progresses, the costs were adjusted in line with a predicted inflation rate of 2%.

Summary of financial implications of the bill

15. In summary, the costs associated with the measures introduced by the Heat Networks (Scotland) Bill were distinguished separately based on the type of the regulatory intervention introduced and the party that such costs would fall upon.

Costs on the Scottish Administration

16. Costs that are expected to occur within the first two years of the Bill receiving Royal Assent are associated with the:

- development of a suite of regulations and guidance as set out within the Bill is expected to cost between £524,353 and £1,156,277 in nominal prices over the first two years following the Bill receiving Royal Assent.
- Heat Networks Licence system, which was estimated to have an initial set up cost ranging between £1,046,179 and £7,103,372 in nominal prices. The administration of the licensing system is expected to operate on a ‘cost reflective’ basis⁸.

⁷ References to ‘proxies’ throughout the Financial Memorandum refer to the costs of functions carried out in other regulated sectors, which are comparable to those created by the Bill. For instance, in the context of paragraphs 59 – 65, the ‘proxy’ for the set-up costs of a licensing authority is the set-up costs of WICS, Ofwat and the SHR.

⁸ A number of UK regulatory bodies practice the process of cost reflectivity, whereby fees for a specific process are determined based on the costs of delivery to the regulator, such as licence applications. This principle is also intended to be applied in the case of the licensing authority in the heat

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17. Furthermore, there are expected ongoing costs of operating specific elements introduced by the Bill. Those costs were calculated across 10 years in nominal prices, starting in year 3 following the Bill receiving Royal Assent. Costs are estimated to be as follows for each of the measures:

- Heat Network Consent – £1,294,572 - £3,355,957
- Heat Network Zones – £1,187,110 - £4,726,288
- Heat Network Zone Permits – £1,415,200 - £4,128,247.

18. The total quantified cost of the Bill to the Scottish Administration over 10 years is estimated to range between £5,467,713 and £20,470,142 in nominal prices.

Costs on Local Authorities

19. The main financial implications that local authorities are likely to incur as a result of the Heat Networks (Scotland) Bill are associated with Heat Network Consent, Zoning and Building Assessment Reports. However, in most cases those will be covered by the Scottish Administration. Local authorities will also incur some percentage of the costs associated with the development of Building Assessment Reports, which was calculated for all public bodies in Scotland and is included in the total sum provided for other bodies, individuals and businesses below.

20. The total quantified cost on local authorities over 10 years is estimated to range between £15,872 and £47,617 in nominal prices and are associated with Heat Network Zones.

Costs on other bodies, individuals and businesses

21. Any organisations wishing to enter the market will incur ongoing costs associated with the compliance to new regulatory measures introduced by the Bill. Those costs were estimated across 10 years in nominal prices, starting in year 3 following the Bill receiving Royal Assent.

- Heat Network Licensing – £6,683,785 - £13,799,305

networks market. Therefore the costs of licensing are expected to be covered in full by income to the Scottish Administration (from those applying for a licence) which will result in the nil net cost to the Scottish Administration.

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- Heat Network Consent – £5,800,858 - £34,805,150
- Heat Network Zone Permits – £7,847,644 - £36,543,406.

22. There are also costs that will be incurred by the public sector during the preparation of Building Assessment Reports that the Bill introduces. Those costs are estimated to range between £3,139,903 and £9,419,708 in nominal prices across 10 years.

23. The total quantified cost on other bodies, individuals and businesses over 10 years was estimated to range between £24,472,191 and £94,567,569 in nominal prices.

Research and evidence

24. The evidence for this Financial Memorandum was gathered from a variety of sources such as consultation with relevant stakeholders and relevant Scottish Government Directorates as well as reviews of similar regulatory regimes.

25. The Heat Networks (Scotland) Bill has been developed with an intention to follow a cost reflectivity principle, whereby the costs associated with the administration of the new regulatory regime would be recouped by the fees from market participants. It is recognised, however, that due to the immaturity of the market in Scotland the transition period may require some costs to be covered by the Scottish Administration in the interim before the market is fully developed.

26. To support the development of the evidence base, the Scottish Government commissioned KPMG to undertake a range of specialist evidence gathering activities, with data and information gathered from a number of sources including:

- data collected from relevant stakeholders through information requests;
- evidence gathered through a series of meetings and workshops held as part of this evidence gathering project;

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- existing market data held by the UK Government's Department for Business, Energy and Industrial Strategy (BEIS)⁹ and the Competition and Markets Authority (CMA)¹⁰;
- information collected through the two previous Scottish Governments' stakeholder consultations on Local Heat and Energy Efficiency Strategies (LHEES) and heat networks regulation^{11 12};
- academic literature and international evidence; and
- other publicly available information.

27. In total as part of this evidence gathering phase, KPMG have directly interacted with over 45 stakeholders from different organisations and backgrounds representing key groups who could potentially be impacted by these new policies. These stakeholders are:

- domestic heat network and low carbon energy developers;
- trade and industry bodies;
- wider business and industry;
- housing associations;
- consumer advocacy groups and academics; and
- government, including local authorities and the Scottish Government.

28. The estimated costs have been shared with some stakeholders. In particular an extract from this document was shared with COSLA officers,

⁹ Heat Networks: Ensuring Sustained Investment and Protecting Consumers, the Department for Business, Energy and Industrial Strategy (BEIS), 7 December 2018.

¹⁰ Heat Networks Market Study: Final Report: Appendices, the Competition and Markets Authority, 23 July 2017.

¹¹ Consultation on Heat and Energy Efficiency Strategies, and Regulation of District Heating, the Scottish Government, 24 January 2017.

¹² Scotland's Energy Efficiency Programme: Second Consultation on Local Heat & Energy Efficiency Strategies, and Regulation of District and Communal Heating, the Scottish Government, 14 November 2017.

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who have not provided any alternative cost values at the time of introduction of the Bill.

29. When presenting evidence and views gathered from stakeholders, the full details of the sources of the evidence relied upon were provided within this document, where possible. However, the comments or views were not attributed to any specific organisations. In addition, any assumptions and uncertainties on which evidence used in this document is based are outlined throughout the Financial Memorandum.

30. Where possible, in the summary sections, the financial implications are provided in nominal prices across 10 years following the Bill receiving Royal Assent.

31. The Scottish Government acknowledges that there is a level of uncertainty inherent in some of the costs estimated in this Financial Memorandum.

Part 1 – Delegated powers

Context

32. The evolving nature of heat network technology and the market in Scotland requires a regulatory system which will be able to adapt to the development of new ownership structures, new technological solutions as well as different sources of finance. To enable that flexibility, the Heat Networks (Scotland) Bill introduces elements of regulation that can evolve and be adapted with time by delegating powers to develop regulations and guidance to the Scottish Ministers.

33. The Delegated Powers Memorandum outlines in detail all of the delegated powers and provides a short explanation of what each power allows, why the power was taken in the Bill and why the selected form of parliamentary procedure has been considered appropriate.

34. In order to develop a range of statutory instruments, regulations and guidance introduced by the Bill, the Scottish Ministers will engage a number of technical specialists and stakeholders to ensure that the regulation is suited to the needs of consumers and the sector.

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Costs to the Scottish administration

Analysis of financial implications

35. In order to develop the detailed processes needed for a fully functioning regulatory system, the Scottish Government will engage technical experts and policy staff. Their role will be to develop a series of regulations and guidance needed to implement Heat Networks Licences, Heat Network Consent, Heat Network Zones, Heat Network Zone Permits, Transfer Schemes and additional rights and powers for licence holders. It is envisaged that the team will be operational for two years and will be working closely with any designated licensing authority to design an adequate licensing system. Remaining elements will be developed by the same team in consultation with wider Scottish Government Directorates and relevant Scottish stakeholders.

36. Staff costs have been developed based on the average Scottish Government pay rates in Table 1. The average gross salary used in the estimates includes both the consolidated and non-consolidated pay awards for all staff within the Scottish Government Main Bargaining Unit. The costs estimates have been presented in 2019 prices.

37. The amount of staff needed to develop the regulations and guidance needed for the implementation of the Bill will depend largely on input from existing teams as well as designation of the Heat Networks Licensing Authority by the Scottish Ministers. If the Scottish Ministers chose to designate an existing organisation it is expected that it will provide an input into the development of the licensing. Funding of this activity would come from regulatory set up costs outlined in Part 2 rather than from initial staff costs outlined in Table 1. However, if the Scottish Ministers do not designate an external licensing authority, it is likely that most of the development will be carried out by the Scottish Government staff, moving the estimates of staff costs to higher ranges.

Table 1 – Cost of staff for development of subsequent regulation in 2019 prices

Staff resource		FTE	Cost (£) 2019
	Low	1	43,144

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Policy Advisor @ £43,144	High	3	129,432
Technical Experts @ £56,862	Low	2	113,724
	High	4	227,448
Management @ £74,921	Low	0.5	37,460.50
	High	1	74,921
Legal Support @ £91,901	Low	0.5	45,950.50
	High	0.75	68,925.75
Total Costs	Low		240,279
	High		500,727

38. In addition, it is envisaged that the staff will consult with the public on the majority of proposals.

39. A total of 51 provisions create powers that enable the Scottish Ministers to make regulations (or directions or guidance), which are likely to require further consultation with stakeholders. Based on previous experience of consultation by the Scottish Government, it was estimated that the average costs range between £5,800 and £25,000, based on 2019 prices (see Table 2).

40. The costs of staff time involved in the consultation process were not included as they are covered by the estimates above. All costs were estimated in 2019 prices.

41. It is expected that approximately four public consultations will be required following the Bill receiving Royal Assent.

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Table 2 - Average range of costs to undertake one consultation in 2019 prices

Costs (£) 2019	Low	Medium	High
Publishing the consultation document	1,000	2,000	3,000
Consultation Events	1,500	3,000	4,500
Independent Consultation Analysis	2,500	5,000	15,000
Publication of the consultation analysis	800	1,650	2,500
Total	5,800	11,650	25,000

42. The analysis section presents costs in 2019 prices to enable comparison between similar examples used for the estimation.

Summary of costs on the Scottish Administration

43. The total cost for the Scottish Administration of the four public consultations is therefore expected to be between £24,355 and £104,977 in nominal prices, across two years. All of the costs were adjusted by inflation rate (assumed at 2%). Table 3 presents the costs across both years.

Table 3 - Overview of Regulation Development Costs over 2 years in nominal prices

Year / Nominal Cost Range in (£)	Item	Low	Medium	High
Year 1 (2021/2022)	Staff Costs	245,263	382,854	520,445
	Consultation Cost	12,057	24,218	51,969

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Year 2 (2022/2023)	Staff Costs	254,736	392,795	530,854
	Consultation Cost	12,298	24,702	53,008
Total over 2 years		524,353	824,569	1,156,277

Costs on local authorities

44. Local authorities will be involved in the development of the proposals and will be frequently consulted as part of the process. Although this may require some time from local authority staff, this is likely to be similar to existing consultation requirements.

45. The majority of regulations and guidance developed for Heat Network Zones will be developed in close collaboration with local authorities.

Costs on other bodies, individuals and businesses

46. Similarly, it is expected that the development of regulations and guidance will be done together with relevant stakeholders and therefore they will be asked to participate in consultation events, working groups, and to respond to formal consultations.

47. This process will be voluntary and those who will be participating in the development of further regulation will be participating in it in their professional capacity.

48. The designated licensing authority is likely to play an active role in setting up a regulatory system for heat network licensing at the point when it is appointed by the Scottish Ministers. Such costs are accounted for in the initial set up costs that are outlined in para: 60-66 of Part 2.

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Part 2 – Heat networks licences

Context

49. There are currently no set legal requirements for heat networks and there is no sector regulator with responsibility for overseeing the market, except for the Heat Networks (Metering and Billing) Regulations 2014¹³ which include some limited requirements on heat suppliers (i.e. those supplying and charging for heating, cooling or hot water) such as notifying the Office for Product Safety and Standards (OPSS) of the existence of their network(s).

50. Following a review of different methods of regulation, such as authorisation and licensing, the Scottish Government identified licensing to be the most appropriate way to regulate the sector. This is because it has shown to be an effective form of regulation for similar utilities (such as gas, electricity and water), while also enabling technical standards to be required, which can maximise the efficiency of heat networks and enable the potential for them to interconnect and serve a greater number of buildings in future.

51. However, the Scottish Government recognises that it may be sensible to exempt certain heat networks from holding a licence (or from certain licence conditions) to ensure proportionality. That is why the Bill provides a power for the Scottish Ministers to exempt specified organisations or types of networks, or whole categories of organisations or networks.

52. To administer the licensing system and monitor the development of the market, the Bill gives the Scottish Ministers a power to designate a licensing authority.

53. The licensing authority is expected to provide oversight of the operational aspects of the sector while the development of any prospective infrastructure will be provided for through the Heat Network Consent (Part 3) and Heat Network Zone Permits (Part 5) which are expected to be initially administered by the Scottish Ministers.

54. All elements of the regulatory framework and actors are expected to work closely, however a division of responsibilities is needed to ensure objectivity.

¹³ The Heat Network (Metering and Billing) Regulations 2014, the UK Parliament, 18 December 2014.

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Costs on the Scottish administration

Analysis of financial implications

55. One of the key impacts on the Scottish Administration of the introduction of the licensing system will be the financial and resource costs of appointing or setting up, and running any licensing authority.

56. The Bill allows for the running costs of the licensing authority to be recouped, wholly or in part, by the fees and charges raised from prospective licence holders as specified in paragraph 101 - 111. These exact costs will depend upon the scope and nature of the roles of any future licensing authority.

57. When considering the costs of the introduction of a licensing system on the Scottish Administration, the following elements were taken into consideration:

- Regulatory set up costs following designation of the licensing authority (para: 59 - 65);
- Operational costs of the licensing authority¹⁴:
 - 'Top down' benchmark (para: 73 - 81); and
 - 'Bottom up' benchmark (including potential costs of licensing applications and licence review) (para: 82 - 111).

58. The analysis section presents costs in 2019 prices to enable comparisons between similar examples used for the estimation.

Regulatory Set up Costs

59. Following the designation of the licensing authority, there will be a number of costs to set up the body.

60. These costs will ultimately vary depending on whether the licensing authority is appended to an existing body or established as a new body in its own right. These costs could include:

- legal and project costs,

¹⁴ A 'top-down' approach generally seeks to identify and apply relevant benchmarks in analysis, whereas a 'bottom-up' analysis will generally focus on the sum of constituent or specific characteristics.

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- costs to develop corporate governance,
- employee recruitment,
- premises, infrastructure and overheads,
- initial marketing, branding and communication strategy,
- potential contingency,
- set up costs for the regulator regime (licensing, codes, registers, guidelines, regulation).

61. Evidence gathered by KPMG has looked to benchmark the set-up costs of a number of Scottish regulators which are fulfilling similar roles to the Scottish Government’s proposed new heat sector licensing authority (see Table 4). These should be seen as indicative.

Table 4 – Regulatory Body set up cost range in 2019 prices

Body	Set up costs	£ 2019
Industry Commission for Scotland (WICS) ¹⁵	WICS incurred set-up costs to establish the competitive framework, these included market codes, developing the licensing regime and other staff and set up costs.	6.72m
Ofwat – Retail Competition Regulation ¹⁶	Costs of development of economic regulation of retail competition for water within England and Wales. Costs to the economic regulator include work to design and implement market arrangements including development of codes, licences, contracts and other market architecture.	5.80m

¹⁵ Retail Competition in Scotland: An Audit Trail of the Costs Incurred and the Savings Achieved, the Water Industry Commission for Scotland, April 2011.

¹⁶ Costs and Benefits of Introducing Competition to Residential Customers in England, Ofwat, September 2016. https://www.ofwat.gov.uk/wp-content/uploads/2016/09/pap_tec20160919RRRfinal.pdf

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<p>Scottish Housing Regulator Transition (SHR)¹⁷</p>	<p>Total transitional costs to develop an efficient data collection system and include the cost of changing the SHR from an executive agency to a non-Ministerial Department.</p>	<p>0.99m</p>
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62. The lower end estimates for the Scottish Housing Regulator (SHR) amount to the transitional costs, stemming from the prior SHR executive agency switching to that of a non-Ministerial Department.

63. It is believed that WICS represents a more accurate estimate of the potential set up of any new heat networks licensing authority. This body, established in 2005 through Water Services etc. (Scotland) Act 2005, was involved in the development of the market codes and licensing regime following the opening of part of the water market in Scotland to competition, which is believed to be most similar to the expected set up requirements of the new heat networks licensing authority.

64. Table 4 outlines estimated set up costs of the licensing authority, ranging from £0.99 to £6.72 in 2019 prices. Due to the size of the market in Scotland, the Scottish Government believes that costs of setting up a regulatory body would remain within the higher range even in the event of designating an existing body as a licensing authority.

65. Given the time needed to establish a licensing authority, including recruiting new staff, it is expected that the majority of costs will occur in Year 2.

Operational Costs of the Licensing Authority

66. The licensing authority will have overall oversight of the statutory regulatory regime for heat networks.

67. For the purposes of evidence gathering, KPMG undertook a top down and bottom up costing, as an indicative estimate of the costs of this intervention on the Scottish Administration.

¹⁷ SPICe Briefing: Housing (Scotland) Bill, the Scottish Parliament, 3 March 2010.

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68. Using a top down estimate, KPMG estimated a potential operating cost of the licensing authority of around £2.56m - £4.17m per annum, in 2019 prices.

69. Meanwhile KPMG’s bottom up analysis estimated potential operating costs of around £0.86m - £2.57m per annum in 2019 prices. However, it is noted this approach has not considered all potential costs to the organisation such as overheads.

70. Based on a review of other sector regulators, the primary operating cost drivers are outlined in table 5 below.

Table 5 – A summary of the primary operating cost drivers

Cost driver	Overview
Staff	<p>Expertise will be required in order to help with heat network regulatory development and implementation of the associated heat network projects.</p> <p>Specialists in the fields of legal, technical and expert advice for certain roles.</p> <p>General and administrative costs, and staff costs for the running of any functions.</p>
Facilities	<p>Proposals will require suitable facilities to operate.</p> <p>Offices will therefore require the installation and/or maintenance of systems such as air conditioning, lighting and heating.</p>
Systems	<p>Internal IT and infrastructure systems.</p>

71. There are significant uncertainties around the potential size, location (within an existing organisation or as a new entity) and subsequent costs depending on the development of the market in Scotland.

72. However, based on the content of the Bill and other sector regulators, a draft list of likely functions which any new licensing authority for heat networks would deliver has been developed by the Scottish Government. The expected functions of the licensing authority include:

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- managing the overall licensing regulatory regime;
- assessment and administration of all licensing requirements and registers;
- oversight development of technical / functional standards to regulate quality of service;
- monitoring and compliance functions with such technical standards; and
- development / publication of guidance and other assistance to stakeholders.

Top down benchmark

73. This section looks to benchmark the costs of a number of Scottish regulators which are fulfilling similar roles to the proposed licensing authority.

74. The focus, where possible, has been on Scottish only regulators which are delivering functions outlined above such as licensing regimes, monitoring, guidance and facilitation roles or a wider overview to regulated frameworks.

75. It is noted that these organisations are not perfect proxies for potential costs of any new heat network licensing authority, as the roles and industries they operate in are different. However, it might be expected that the underlying cost profiles (staff, buildings, infrastructure, and processes) may be similar for both. Table 6 below outlines the benchmarks.

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Table 6 - Top down comparator benchmark¹⁸

Body	Role	Functions	Year	Cost (£m) 2019	
				Staff	Total
Water Industry Commission for Scotland (WICS)	Non-departmental public body with statutory responsibilities. Manage the regulatory framework which encourages the Scottish water industry to provide a high-quality service and value for money to customers.	Monitoring / reporting Scottish Water's performance such as customer service, investment, costs and leakages. Price setting frameworks conducted every 6 years to deliver Ministers' objectives for the water industry at the lowest reasonable overall cost. Creating / managing regime for licensing the provision of retail water	2017/18	1.76m	3.56m
			2016/17	1.45m	3.80m

¹⁸ Sources from regulator annual accounts.

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		services to the non-household sector.			
Scottish Charities Regulator (SCR)	A non-ministerial office and part of the Scottish Administration. It is the independent regulator and registrar for over 24,000 Scottish charities	Assess applications for charitable status against the charity test set by the Scottish Parliament, managing admission to charity register. Monitor charities annual accounts and information requests submitted to charities about resources. Identify / deal with misconduct, as well as provide wider guidance and support to charities and charitable bodies.	2017/18	2.19m	3.04m
			2016/17	2.67m	2.98m

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Scottish Housing Regulator (SHR)	Independent Non-Ministerial Department which works to monitor, assess, report and intervene as appropriate in relation to social landlords (private and local authority)	<p>Manage and conduct risk based assessments on annual assurance statements submitted by social and private landlords throughout Scotland.</p> <p>Manages register of all the social landlords.</p> <p>Provide help and guidance to tenants and landlords around regulation and standards of service.</p>	2017/18	3.09m	4.04m
			2016/17	3.12m	4.17m
Ofwat (Retail Competition Regulation)	Costs of administering the regulatory regime for competition within water.	Assessment by Professor Cave into the regulatory costs of administering retail water licences and regulatory regime to the	Estimate	-	2.56m

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		Economic Regulator.			
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76. These organisations have also broadly been shown to have similar expenditure requirements, ranging from around £2.56m - £4.17m per annum in 2019 prices for the management of their regulatory functions across Scotland, as summarised below in Table 7.

Table 7 - Regulatory body annual cost range in 2019 prices

Cost range	Low	Medium	High
Cost (£) 2019	2.56m	3.36m	4.17m

77. These costs illustrate the annual operating and staff costs of different regulatory bodies regulating areas of the Scottish economy (and in the case of Ofwat, the English and Welsh economies), they do not include additional set up costs.

78. There are some potential factors which could mean that spending on any sectoral regulator for heat networks might differ from those above, however these are unlikely to lead to significantly differing costs. For example, specialist technical and engineering capabilities could be required, as is the case within WICS.

79. It might also be expected that the potential number of licence holders is far larger than currently assessed by the water regulator. Estimates in the following section identify a range of potential licence holders between 48 and 143, whereas the current number of licence holders that are under WICS oversight is 30.

80. A new heat network licensing authority could be appended to an existing organisation. Under this scenario, the potential annual costs may fall towards the lower end of the identified range, as estimates outlined above are based on individual standalone bodies with their own independent overheads.

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81. The intention of the Bill is that the licensing authority will operate on the cost reflectivity principle and therefore all its costs will be covered by fees from licence holders.

Bottom up assessment

82. In order to estimate the costs of the functions of any heat network licensing authority from a bottom up perspective, two functions have been considered – a facilitator role, and a licence administration role.

Facilitator role

83. It is expected that the new heat network licensing authority will be given the role of supporting contractual negotiations, specifically in situations where suppliers and users of heat reach an impasse. It would be expected that in fulfilling this role, certain resource costs will be required on an annual basis.

84. Costs associated with providing the facilitation service will depend on a number of factors, most crucially the frequency of delivering this role on an annual basis, and the actual time and resource costs involved. Due to the uncertainties involved, particularly in the likely annual frequency of this role being used, these costs have not been estimated.

85. However, it would be expected that certain technical, legal and contractual specialists would be required on a full time basis to oversee the facilitator role held by the heat networks licensing authority, these costs could comprise a material amount.

Licence administration

86. One of the key roles which will be undertaken by the licensing authority is development of the licence process for heat network operators. This role will include the development of licence requirements, a process for assessment of licence applications, the development of guidance for licences, and a revocations process. Most of those costs will be covered during the initial phase of heat networks regulation set up as outlined in Part 1. There will also be ongoing licence administration costs such as licence management, licence changes, updating, appeals, etc. and those are expected to be covered by the licence charge outlined below.

87. Each of these areas will have specific costs to the Scottish Administration through staff resource and the required overheads to enable these functions to be completed (costs of business are assessed above).

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88. Evidence of the costs of other licence assessment processes performed by UK authorities is outlined below as an indication of the potential costs of any licence process for heat networks.

Initial licence assessment

89. One of the key costs involved is the initial assessment of any licence applications. The assessment of individual applications will have resource requirements, with actions ranging from filling in forms, responding to queries and assessing the overall licence submission against the criteria. This initial, one off process would be completed for all potential licences.

90. By using this cost reflectivity principle it was possible to gather a range of indicative financial costs in order to process and assess licence applications. Based on the research of similar processes, the benchmark of a suitable cost range for undertaking this initial assessment and screening was developed (see Table 8).

91. These costs do not contain the underlying costs of managing the licence and the underlying regulatory and process requirements which come with this which could include licence changes, consultations, decisions and impact assessment. The estimates also assume that reviewed licences and Heat Networks Licences are of similar complexity.

Table 8 - Licence application review benchmark cost in 2019 prices

Process	Role	Source	Indicative Cost
Ofwat – Supply Licence	Licence to supply eligible stakeholders with retail services, application fee reflects the costs incurred to undertake the necessary assessments / associated public consultation.	Ofwat Website ¹⁹	£5,250

¹⁹ Becoming a Water Supply and Sewerage Licensee, Ofwat, accessed: 29 January 2020.

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Water Industry Commission for Scotland – Supply Licence	Licence for delivery of water and wastewater services in Scotland, initial cost designed to cover costs of processing applications.	Water Industry Commission for Scotland Website ²⁰	£4,750
Ofgem - Supply Licence	Licence for provision of gas or electricity supply to domestic or non-domestic premises. Based on Ofgem new application and vetting process from 2019, cost reflective.	Ofgem Website ²¹	£2,150
Ofgem – Distribution or Transmission Licence	Licence for distribution or transmission of gas or electricity supply. Based on Ofgem new application and vetting process from 2019, cost reflective.	Ofgem Website ²²	£3,200
Ofgem – Interconnector Licence	Licence for operation of interconnector. Based on Ofgem new application and vetting process from 2019, cost reflective.	Ofgem Website ²³	£1,050

92. The licensing regime for heat networks is expected to assess applications based on a risk based approach, looking into both company and directors. Broadly, this process will be more similar to that undertaken by Ofgem as part of the licence applications into the supply market under their new approach.

²⁰ Licence Fees, WICS, accessed: 29 January 2020.

²¹ Application Process, Ofgem, accessed: 29 January 2020.

²² IBID.

²³ IBID.

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93. It is noted that several of the above licence assessment processes contain additional rigour which would not be expected from the heat networking licence scheme, particularly the Ofwat assessment which involves a 20-day consultation on a potential licence.

94. However, the Heat Networks Licence costs may vary depending on the number of prospective consumers or capacity of the network. This will ensure that principles of proportionality are applied. Due to these variables, the costs per customer are not possible to be estimated. That is why for the purposes of this Financial Memorandum the estimates are based on other licence regimes.

95. It is expected that any licence application costs would fall within the higher end of identified range. The Scottish Government would therefore expect a range of around £3,150 - £5,250 in 2019 prices for licence assessment costs for any new regulator, on a per assessment basis, as summarised below (see table 9).

Table 9 - Licence application review individual cost in 2019 prices

Cost range	Low	Medium	High
Cost (£) 2019	1,050	3,150	5,250

Appeals process

96. The Bill also includes provision regarding the appeals process against licensing decisions and potential exemptions from licensing, in which appeals would be assessed and potentially given hearing and inquiry support. At this stage, the estimation of costs of this process is not possible as the detailed process is due to be developed in secondary legislation.

Review of licence cost/income to the licensing authority

97. The number of potential licence holders will depend on a range of factors, including the overall number of operators and potential exemptions.

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At present, it is estimated that there are over 800 heat networks in Scotland, serving over 25,000 final customers²⁴.

98. At this stage, due to the lack of information about legal structures of the networks’ governance, KPMG were unable to identify an exact number of potential licence holders. However, based on the proportion of Scottish heat networks as a whole compared to the UK, this could be in the region of around 95 operators²⁵ in total, potentially operating multiple sites. To reflect the uncertainty in these figures, the number of potential licence holders has been estimated using a range of 50% from the central value, with the potential for 48 – 143 licence holders licensees in total. Since the overall estimated number of heat networks in Scotland is around 800 (both communal and district), the costs are estimated at the higher end of the range.

99. Based on these figures, and the costs of reviewing following the reflectivity principle highlighted above, it was estimated, using an individual licence review cost of £4,200 in 2019 prices that the potential costs of assessing licence applications could be between £201,000 and £600,600 when calculated on a one-off basis in 2019 prices (see Table 10). Since those costs are expected to be recovered by the Scottish Government through fees, this income will result in a net nil cost to the Scottish Administration.

Table 10 - Licence application total cost/income expected over 10 years in 2019 prices.

Cost range	Low	Medium	High
Number of schemes	48	95	143
Cost (£) 2019	201,600	399,000	600,600

²⁴ Energy Trends: March 2018, Special Feature Article – Experimental Statistics on Heat Networks, BEIS, 29 March 2018.

²⁵ KPMG have looked to estimate the potential number of operators in Scotland, due a lack of specific data on this factor. They have identified that in total, there are around 1,600 supplier/operators across the UK as a whole, we have proportionally scaled this to reflect the 6% of total UK heat networks stationed in Scotland.

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100. It is estimated that the costs of application review will be spread across 10 years (with some occasional applications following that period) since it is unlikely that the review of all applications to the licensing authority will be filed at the same time.

Ongoing licence administration

101. In addition to the initial assessment of licence applications, any licensing authority would likely incur annual administrative costs involved with ongoing operations of the body.

102. For instance, the Water Industry Commission for Scotland uses both a cost reflective initial application assessment fee, as well as an annual levy, designed to cover the ongoing costs of their licensing activities. This levy directly covers the administrative costs involved with monitoring compliance with licensing terms and administering the licensing regime (see Table 11).

103. Any heat networks licensing authority would have to undertake similar licensing administration functions as part of its mandate to issue and manage licences. Therefore, a range of indicative costs associated with the administration and management of licensing regimes was developed to help with estimating the potential costs. Since the similar cost reflectivity principle as used by WICS would be applied, those indicative costs could also be an income for the licensing authority.

Table 11 - Indicative costs of licence administration

Process	Role	Costed activities	Source	Indicative Cost Per Licence £ 2019
Oil and Gas Authority (OGA) Production Licence	Licence levy for producing oil and gas under the remit of the authority, funding OGA	Licence administration monitoring, wider	OGA Website ²⁶	94,000

²⁶ Industry Levy, the Oil and Gas Authority, accessed: 29 January 2020.

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	production administration costs.	investment promotion		
Water Industry Commission for Scotland Levy	Licence levy directly covers the administrative costs involved with monitoring compliance with licensing terms and administering the licence.	Licence administration and monitoring	Water Industry Commission for Scotland Levy Annual Report ²⁷	29,000*
Oil and Gas Authority (OGA) Exploration Licence	Licence levy for the exploration for oil and gas under the remit of the authority, funding OGA exploration administration costs.	Licence administration monitoring, wider investment promotion	OGA Website ²⁸	11,300
Marine Management Organisation	Licence administration costs to the MMO over the course of a 5-	Licence administration	The Marine Works Impact Assessment ²⁹	11,300

²⁷ Water Industry Commission for Scotland Levy Annual Report 2018 outlining total levy fees of 2019 prices ~£1,500,000 servicing over 50 licences (individual licences for both water and sewerage) providing an indicative cost per licence.

²⁸ Industry Levy, the Oil and Gas Authority, accessed: 29 January 2020.

²⁹ Explanatory Note to the Marine Works (Environmental Impact Assessment) (Amendment) Regulations, the Department for Environment and Rural Affairs (DEFRA), 6 April 2011.

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(MMO) Licence	year licence period.			
Ofwat Licencing Fee Costs	Licence fee annual cost requires the payment of fees to cover the operating costs of Ofwat licence.	Codes, licensing, complaints, policy, monitoring	Ofwat Website ³⁰	7,000

104. Analysed organisations in Table 11 have been shown to have a large range of different costs related to the management of the regulatory activities. The indicative range has highlighted potential expenditure, on a per licence basis or between £7,000 and £94,000 per annum in 2019 prices.

105. The indicative range is likely to be attributable to two crucial factors, differences in the underlying activities taken by the regulatory bodies involved, and importantly the underlying costs and skills sets involved within these particular industries.

106. For instance it was noted that as well as undertaking additional activities which it might not expect to be undertaken by any heat networks regulator, the oil and gas authority, particularly for production licences, requires a number of technical site visits for licence and monitoring activities which are charged at a day rate far in excess³¹ of what is expected for any heat network licensing authority. Therefore, these costs were discounted as a suitable comparator. Additionally, since the heat networks market is likely to involve a larger number of smaller

³⁰ Water Supply and Sewerage Licensing Regime: Changes to How Licence Fees are Set – Summary of Consultation Responses and Conclusions, Ofwat, accessed: 29 January 2020.

³¹ Cost Recovery for Oil and Gas Consents Consultation on Further Cost Recovery for Oil and Gas Drilling and Production Consents Issued By DECC’s Licensing Exploration and Development Branch, the Department for Energy and Climate Change (DECC), 24 October 2012.

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organisations it is likely that the licence administration cost/income per annum may be set at the low end of the cost range (see Table 12).

Table 12 - Licence administration individual cost/income per annum in 2019 prices

Cost range	Low	Medium	High
Cost (£) 2019	7,000	18,000	29,000

Ongoing licence administration cost to regulator

107. Based on the potential licence numbers outlined above, it may be expected the potential for 48 – 143 licence holders. Based on these figures, and the costs of administering above taking a mid-point of £18,000 in 2019 prices, it was estimated that the potential costs of administering the licensing regime could be between £864,000 - £2,574,000 in 2019 prices on an annual basis (see Table 13).

108. However, it is expected that those costs will be recovered by the annual licence fee which will fund the ongoing licence administration cost. Such fees may not be sufficient to cover the costs of the licensing authority (at least in the interim, as new organisations are obtaining their licences) therefore the Scottish Administration will subsidise the difference to the licensing authority (should it be designated as separate from the Scottish Government).

Table 13 - Licence regime total cost per annum in 2019 prices

Cost range	Low	Medium	High
Cost (£) 2019	864,000	1,710,000	2,574,000

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Summary of the licensing system costs

109. In order to estimate the total cost of the licensing system over 10 years, the estimated range of costs of setting up a licensing authority was divided between Year 1 and Year 2 on 15% and 85% as it is expected that the majority of work will be paid for in Year 2. Additionally, the costs of the licence application review and ongoing licence administration fees estimated in the bottom up analysis were used. Furthermore, it was assumed that the licence applications will be gradual, estimated as:

- 60% of applications will be received in Year 3;
- 20% of applications will be received in Year 4;
- 15% of applications will be received in Year 5; and
- 5% of applications will be received in Year 6-10.

110. The estimates account for existing heat networks applying within the first few years of the introduction of the regulatory systems, as well as any new players that may wish to enter the market in the following years. It is expected, however, that the majority of the companies that would wish to operate the heat networks in Scotland will apply for the licence in the first two years following the introduction of the regulation.

111. As outlined in Table 14, it is expected that the total cost of the regulator over 10 years is expected to be only the set up costs, as the overall maintenance and monitoring costs is expected to be recouped by the licence charge. All of the costs were adjusted by inflation rate (assumed at 2%).

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Table 14 - Breakdown of the costs to the Scottish Administration of licensing system over 10 years in nominal prices

Year / Nominal Cost Range in (£)	Item	Low	Medium	High
Year 1 (2021/2022)	Regulator Set up	154,348	601,801	1,047,695
Year 2 (2022/2023)	Regulator Set up	892,131	3,478,410	6,055,677
Year 3 (2023/2024)	Review of applications	131,711	258,880	390,591
	Ongoing costs of licensing	-	-	-
	Licence application fee	- 131,711	- 258,880	- 390,591
	Licence admin charge	-	-	-
Year 4 (2024/2025)	Review of applications	46,326	88,019	134,345
	Ongoing costs of licensing	575,765	1,131,676	1,707,441
	Licence application fee	- 46,326	- 88,019	- 134,345
	Licence admin charge	- 575,765	- 1,131,676	- 1,707,441

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Year 5 (2025/2026)	Review of applications	33,077	66,153	99,230
	Ongoing costs of licensing	789,791	1,539,080	1,539,080
	Licence application fee	- 33,077	- 66,153	- 99,230
	Licence admin charge	- 789,791	- 1,539,080	- 1,539,080
Year 6 (2026/2027)	Review of applications	4,820	4,820	9,639
	Ongoing costs of licensing	950,179	1,859,046	1,859,046
	Licence application fee	- 4,820	- 4,820	- 9,639
	Licence admin charge	- 950,179	- 1,859,046	- 1,859,046
Year 7 (2027/2028)	Review of applications	4,916	4,916	9,832
	Ongoing costs of licensing	990,252	1,917,297	1,917,297
	Licence application fee	- 4,916	- 4,916	- 9,832

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	Licence admin charge	- 990,252	- 1,917,297	- 1,917,297
Year 8 (2028/2029)	Review of applications	-	5,014	5,014
	Ongoing costs of licensing	1,031,548	1,977,133	1,977,133
	Licence application fee	-	- 5,014	- 5,014
	Licence admin charge	- 1,031,548	- 1,977,133	- 1,977,133
Year 9 (2029/2030)	Review of applications	-	5,115	5,115
	Ongoing costs of licensing	1,052,179	2,038,596	2,038,596
	Licence application fee	-	- 5,115	- 5,115
	Licence admin charge	- 1,052,179	- 2,038,596	- 2,038,596
Year 10 (2030/2031)	Review of applications	-	5,217	5,217
	Ongoing costs of licensing	1,073,222	2,038,596	2,101,727

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	Licence application fee	-	- 5,217	- 5,217
	Licence admin charge	- 1,073,222	- 2,038,596	- 2,101,727
Total 10 years		1,046,479	4,080,211	7,103,372

Costs on local authorities

112. At present local authorities are often involved in the development of heat networks and in some cases can even own and operate the projects. As such it is expected that some local authorities, or their arm’s length organisations, may wish to become a licence holder.

113. That is why they are likely to incur similar costs as those incurred by other licence holders as described in next section.

114. The Scottish Government may decide to reduce or exempt local authorities from certain fees, however these decisions will be determined by regulations, and as such it is not possible to estimate it at the introduction of the Bill.

Costs on other bodies, individuals and businesses

Analysis of financial implications

115. The majority of other impacted bodies are likely to be businesses and other organisations which may wish to become a licence holder. Those businesses or organisations will incur costs associated with the application for the licence as well as a contribution in the form of a licence charge to maintain the licensing authority. This practice is common in other utilities.

116. The benefits that the prospective licence holders will get from being licensed are access to the market and improved consumer trust through formal recognition of their status.

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Impacts on the prospective licence holders

Cost of application

117. One of the key costs involved in the licensing system is the initial assessment of any licence submissions. To compensate for these costs, the licensing authority will seek a licence assessment fee during applications. This initial, one off process would be completed for all potential licences.

118. In line with the cost recovery principles, and examples highlighted earlier, it would be expected that this fee will be a direct cost to business of around £3,150 - £5,250 in 2019 prices on a per licence basis, as outlined below (see Table 15).

Table 15 – Licence Application Fee in 2019 prices

Cost range	Low	Medium	High
Cost (£) 2019	3,150	4,200	5,250

119. In addition to any licence application fee, it is expected that a resource outlay would be required from businesses in order to develop, engage and submit an application for a licence. Businesses, for example, would have to incur the time, opportunity and administrative costs associated with applying for a licence (consumers could also incur some of these costs through increases in prices where the costs incurred by a market participant in becoming licensed is passed on via bills).

Licence charge

120. In order to cover the costs of the licensing authority to provide an oversight of the market, the licence holders will be expected to pay an annual licence charge. As identified in the previous section, the licence charge is common across other utilities and enables the licensing authority to recover costs associated with its operation. It is estimated that a licence admin charge will range between £7,000 and £29,000 in 2019 prices as outlined in Table 16. The exact charge amount will be determined by regulations and is likely to be subject to on-going review.

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Table 16 - Licence charge cost per annum in 2019 prices

Cost range	Low	Medium	High
Cost (£) 2019	7,000	18,000	29,000

Summary of costs on other bodies, individuals and businesses

121. The heat network licensing system was designed to ensure that the costs incurred by licence application reviews and licence maintenance by the licensing authority are offset by the fees paid by licence holders. Setting appropriate fees will be undertaken together with stakeholders within regulations and they may vary depending on the size of the networks. The costs outlined in this document are indicative only.

122. Table 17 presents nominal costs to businesses across 10 years. All of the costs were adjusted by inflation (assumed at 2%).

Table 17 – Overview of licensing costs for businesses in nominal prices

Year / Nominal Cost Range in (£)	Item	Low	Medium	High
Year 3 (2023/2024)	Licence application fee	131,711	258,880	390,591
	Licence admin charge	-	-	-
Year 4 (2024/2025)	Licence application fee	46,326	88,019	134,345
	Licence admin charge	575,765	1,131,676	1,707,441

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Year 5 (2025/2026)	Licence application fee	33,077	66,153	99,230
	Licence admin charge	789,791	1,539,080	1,539,080
Year 6 (2026/2027)	Licence application fee	4,820	4,820	9,639
	Licence admin charge	950,179	1,859,046	1,859,046
Year 7 (2027/2028)	Licence application fee	4,916	4,916	9,832
	Licence admin charge	990,252	1,917,297	1,917,297
Year 8 (2028/2029)	Licence application fee	-	5,014	5,014
	Licence admin charge	1,031,548	1,977,133	1,977,133
Year 9 (2029/2030)	Licence application fee	-	5,115	5,115
	Licence admin charge	1,052,179	2,038,596	2,038,596
Year 10 (2030/2031)	Licence application fee	-	5,217	5,217
	Licence admin charge	1,073,222	2,038,596	2,101,727

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Total 10 years		6,683,785	12,939,559	13,799,305
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Impacts on consumers

123. The introduction of a licensing system will also benefit consumers. Estimation of its impact on consumers cannot be undertaken in isolation from other elements of regulation introduced through the Bill. For detailed information about potential impacts on consumers please see Part 8.

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Part 2 – Heat network consent

Context

124. Heat Networks Licences will increase the credibility of heat network operators, by validating and endorsing the credentials of those operating in the market.

125. While this will be essential, a project-specific approval process is also needed to scrutinise how new heat networks meet local and national objectives. To ensure the strategic development and reduce the risk of self-regulation, the Heat Networks (Scotland) Bill provides for this process to be administered by the Scottish Ministers.

126. As such, the Bill requires all new heat networks to obtain a Heat Network Consent. In applying for a Heat Network Consent, developers will need to provide the Scottish Ministers with a robust business plan, including the impact on end users. This will be taken under consideration by the Scottish Ministers in determining whether to grant consent, as will considerations as to how the new heat network:

- contributes to a reduction in greenhouse gas emissions and the timescales in which it does this;
- contributes to a reduction in fuel poverty;
- has sufficient storage capacity to deal with supply issues and is able to work with the wider energy system; and
- fulfils the requirements to commence and complete construction to a specific date to avoid the holding of a right to develop with no intention to act upon it.

127. The Bill will ensure that the sector is subject to a similar consenting regime as that for other energy utilities, such as under the Electricity Act 1989³² consents process, though with different requirements and thresholds to be determined through subsequent regulations to allow for any potential exemptions to be considered.

³² Electricity Act 1989, the UK Parliament, 27 July 1989.

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128. To reduce the burden for businesses, a Heat Network Consent will also enable the Scottish Ministers to grant deemed planning permission.

129. Finally, a major objective of the Bill is to ensure the continued operation of heat networks as the heat (and sometimes hot water) that they are providing is an essential service.

130. The Bill addresses this by requiring those seeking a Heat Network Consent to agree a scheme to transfer operational rights before commencing operation of the network. The arrangements for the transfer scheme would be arranged by the heat network owner but the Scottish Government envisages that, where needed, it can be agreed to vest operational rights in the Scottish Ministers or the local authority. This would then enable both a continued supply of heat to end users, but also the opportunity for the public body to arrange for a new operator in the long-term.

Costs on the Scottish administration

Analysis of financial implications

131. The consenting process will involve a number of different costs to the enforcement authority, primarily stemming from the assessment time taken to review individual applications based on the above criteria, but could also include the management of the consenting process, potential requirements for public and confidential hearings to assess individual developments and the development of guidance on consent conditions.

132. The analysis section presents costs in 2019 prices to enable comparison between similar examples used for the estimation.

Consenting assessment

133. The Scottish Government will look to further develop the details of this consenting process and enforcement mechanisms through regulations, therefore the impacts on the Scottish Administration are at this stage indicative.

134. It is expected that some applications for a Heat Network Consent will be required to comply with Environmental Impact Assessment

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(Scotland) Regulations 2017³³ and undertake relevant Environmental Impact Assessments (EIAs) to accompany their applications. This is considered as an additional cost to the businesses, but also to the Scottish Administration which will be responsible for reviewing them.

135. A consent application will require an assessment by the Scottish Ministers. This would be expected to be the largest cost across the regulations. This process may include hearing stages to engage party views, as well as likely continued correspondence and engagement with the submitting organisation.

136. The most relevant comparable case identified is the process used by the Energy Consents Unit³⁴ in the Scottish Government to assess:

- applications for consent for the construction, extension and operation of electricity generating stations with capacity in excess of 50 megawatts (applications below this threshold are made to the relevant local planning authority);
- applications for the installation of certain overhead electric lines and associated infrastructure;
- applications for necessary wayleaves to confer rights over land to install electric lines;
- compulsory purchase orders promoted under the Electricity Act 1989;
- applications for consent for large gas and oil pipelines.

137. In particular, processes deployed for the assessment of applications for construction, extension and operation of electricity generating stations as well as installation of certain overhead electric lines and associated infrastructure was considered as appropriate example to a similar process that could be undertaken as part of the Heat Network Consent application assessment.

138. It is noted that there are already significant planning approval processes for potential heat network developments, which the consenting process is not looking to duplicate. A similar approach is being

³³ The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017, the Scottish Parliament, 16 May 2017.

³⁴ Energy Infrastructure: Energy Consents, the Scottish Government, accessed: 28 January 2020.

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taken in the energy consents process, where the relevant planning authority is a statutory consultee and planning permission can be deemed as part of one application process that is administered centrally.

139. Fees vary depending on the subject matter of the application as well as the capacity of generation and the length of the electric lines. One of the key determinants of the costs is also whether the development needs to undertake an Environmental Impact Assessment as part of the application process. If so, the costs of the fees were set at a higher rate to account for increased processing costs.

140. Table 18 below outlines the fees for applications to construct, extend or operate a generating station as well as fees to install or keep installed an electric line above ground. The fees were considered by the Scottish Government to provide an appropriate example for the type of fees that would be charged for Heat Network Consent due to the complexity of the projects and the length of time that will be spent on the assessment process.

Table 18 - Outline of the fees for applications to construct, extend or operate a generating station as well as fees to install or keep installed an electric line above ground in 2019 prices

Cost range	Low	Medium	High
Construction, or construction and operation, of a generating station which is not EIA development; and extension, or extension and operation, of a generating station which is not EIA development			
Cost (£) 2019	6,500	70,000	150,000
Construction, or construction and operation, of a generating station which is EIA development			
Cost (£) 2019	7,000	125,000	280,000
Overhead line which is not EIA development			

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Cost (£) 2019	360 (subject to length) ³⁵	Max of 4,000 (subject to length)	Max of £150,000 (subject to length)
Overhead line which is EIA development			
Cost (£) 2019	1,500 (subject to length)	N/A	Max of £300,000 (subject to length)

141. Since the energy consents provide the most appropriate comparable case available, the range of costs per Heat Network Consent assessment for the Scottish Administration is estimated to be £6,500 - £300,000 in 2019 prices (see Table 19). Those costs were estimated on the basis of cost reflectivity, however it is likely that the Heat Network Consent will not recover all of the costs associated with the processing of the applications as is the case in the Energy Consents Unit. Therefore, it is expected that staff costs identified below will be an ongoing cost on the Scottish Administration.

Table 19 – Range of estimated one-off Heat Network Consent Application Assessment Costs in 2019 prices

Cost range	Low	Medium	High
Cost (£) 2019	6,500	125,000	300,000

Consenting appeals process

142. The Bill also introduces a subsequent appeals process against consenting decisions. This process is likely to be administered by

³⁵ The minimum fee of £360 for an overhead line which is not EIA development was discounted as a comparable example as it is likely that small heat network systems are likely to be exempted from a requirement to apply for a consent.

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the Scottish Administration and involve an assessment of the appeal, performing an inquiry into the case and likely hearings for any persons that would initiate the appeal or wished to provide their views.

143. At this stage, due to the lack of information on potential numbers of applications and consent decisions, it was not possible to estimate the potential costs of this process. Therefore it needs to be highlighted that the financial estimates above do not include the potential costs of dealing with what could be a material impact on costs.

Application and guidance

144. Similarly, any new consenting process would also require the development of a formalised set of rules and guidance documents to manage applications. This would involve an additional one off cost during any initial set up.

145. Costs on the Scottish Administration as outlined in Part 1 would be covering the one off set up costs. It is envisaged that due to the expertise and experience of the Energy Consents Team within the Scottish Government, they would be involved in the development of any regulations and guidance for Heat Network Consents.

Annual consenting cost to the Scottish Administration

146. The total annual cost of any consenting process to the Scottish Administration would also depend on the number of potential consent applications submitted every year.

Ongoing costs

147. Some basic costs that would need to be covered include payments to local authorities for processing any planning permission applications which will be deemed as part of the Heat Network Consent award. Additionally, costs would involve payments for consultancy services which may be required to cover any areas of expertise that are not available within the Scottish Government. Furthermore, the costs would cover IT budget, salaries, accommodation, travel to sites, publications of documents, and training and events.

148. Furthermore, since transfer schemes would be agreed alongside a Heat Network Consent, it is expected that the those administering Heat Network Consents would also oversee compliance with

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any conditions of consent initiate the transfer scheme, should it be required.

149. The costs are expected to be covered by fees payable by the consent applicants, however as it is difficult to predict how many consent applications that may be submitted each year, it will be necessary to maintain the team that is responsible for issuing the consents and transfer schemes, as well as some overheads connected to that. The size of the team may change depending on the number of applications received and any trends that may be observed. The initial estimates suggest that the team will require 1 – 3 FTE Admin Staff, 1-2 FTE Case Managers, 0.5 - 1.5 FTE Team Managers and 0.1 – 0.3 FTE of Legal Support which may be required to assist in preparation of transfer schemes. The salaries have been estimated on the basis of Scottish Government standard rates in 2019 costs (see Table 20). It is anticipated that the Heat Network Consent team will be fully operational from Year 3.

Table 20 - Consents Team Staff Resource Cost per annum in 2019 prices

Staff Resource		FTE	Cost (£) 2019
Admin Staff @ £35,968	Low	1	35,968
	High	3	107,904
Case Managers @ £56,862	Low	1	56,862
	High	2	113,724
Team Manager @ £74,921	Low	0.5	37,460.50
	High	1.5	112,382
Legal Support @ £91,901	Low	0.1	9,190.10
	High	0.3	27,570.30
Total Costs	Low		139,481
	High		361,580

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150. Although it is expected that most or all of those costs will be covered by the income generated by raising the fees from consents applications, this document assumes that those costs will be an expenditure that will not be recovered. The main reason for that assumption is that in the initial years of heat network market growth, some of the networks may be exempted from a Heat Network Consent fee to help the market to grow.

151. Additional overhead costs were not included as it is expected they can be shared across with the Energy Consents Unit and recovered from application fees.

Summary of costs on the Scottish Administration

152. KPMG have estimated different deployment scenarios for Scotland based on the current 9% proportion of UK heat networks as a whole based within Scotland, as indicated by BEIS experimental heat network statistics.

153. Based on the deployment scenarios developed by KPMG, it was estimated that approximately 30 larger heat network schemes would require delivery every year to enable meeting the Scottish Government's deployment trajectory³⁶. Following from that it was estimated that in the low deployment scenario, approximately 5 larger heat network schemes would be delivered, and in the medium deployment scenario approximately 21 would be delivered.

154. To calculate the total cost of reviewing Heat Network Consent applications over 10 years, the estimates provided by KPMG were used. The costs of Heat Network Consent for 10 years were therefore estimated to be between £1.3m - £3.3m in nominal prices as outlined in Table 21. Costs were adjusted by inflation (assumed at 2%). Consideration of potential price fluctuations has been covered by presentation of the costs as a low, medium and high range.

³⁶ This is based on an existing average scheme size comparable to existing Scottish district heat networks, and current deployment rates. The potential for smaller communal heating schemes forming part of this projected take up was not included. It might be therefore expected that these estimates underestimate the potential total number of heat network and communal heating schemes which come online by 2050. Estimates rely on use of BES Experimental Statistics on heat networks.

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Table 21 - Overview of Heat Network Consent Costs over 10 years in nominal prices

Year / Nominal Cost Range in (£)	Item	Low	Medium	High
Year 1 (2021/2022)	Consents Team Set up	Covered in Part 1 (paragraph 35-43)		
Year 2 (2022/2023)	Consents Team Set up	Covered in Part 1 (paragraph 35-43)		
Year 3 (2023/2024)	Staff Costs	150,830	270,916	391,002
	Application Fee Income	- 675,857	- 2,838,599	- 4,055,141
	Payment to local authority	337,928	1,419,299	2,027,571
	Application Processing Costs	337,928	1,419,299	2,027,571
Year 4 (2024/2025)	Staff Costs	153,847	276,334	398,822
	Application Fee Income	- 689,374	- 2,895,371	- 4,136,244
	Payment to local authority	344,687	1,447,685	2,068,122

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	Application Processing Costs	344,687	1,447,685	2,068,122
Year 5 (2025/2026)	Staff Costs	156,924	281,861	406,798
	Application Fee Income	- 703,161	- 2,953,278	- 4,218,969
	Payment to local authority	351,581	1,476,639	2,109,484
	Application Processing Costs	351,581	1,476,639	2,109,484
Year 6 (2026/2027)	Staff Costs	160,062	287,498	414,934
	Application Fee Income	- 717,225	- 3,012,344	- 4,303,348
	Payment to local authority	358,612	1,506,172	2,151,674
	Application Processing Costs	358,612	1,506,172	2,151,674
Year 7 (2027/2028)	Staff Costs	163,264	293,248	423,233
	Application Fee Income	- 731,569	- 3,072,591	- 4,389,415
	Payment to local authority	365,785	1,536,295	2,194,708

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	Application Processing Costs	365,785	1,536,295	2,194,708
Year 8 (2028/2029)	Staff Costs	166,529	299,113	431,698
	Application Fee Income	- 746,201	- 3,134,042	- 4,477,203
	Payment to local authority	373,100	1,567,021	2,238,602
	Application Processing Costs	373,100	1,567,021	2,238,602
Year 9 (2029/2030)	Staff Costs	169,859	305,096	440,332
	Application Fee Income	- 761,125	- 3,196,723	- 4,566,747
	Payment to local authority	380,562	1,598,362	2,283,374
	Application Processing Costs	380,562	1,598,362	2,283,374
Year 10 (2030/2031)	Staff Costs	173,257	311,197	449,138
	Application Fee Income	- 776,347	- 3,260,658	- 4,658,082
	Payment to local authority	388,174	1,630,329	2,329,041

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	Application Processing Costs	388,174	1,630,329	2,329,041
Total 10 years		1,294,572	2,325,264	3,355,957

Costs on local authorities

Analysis of financial implications

155. Like Energy Consents for electricity generations and transmission which is administered by the Scottish Government, the new Heat Network Consent process enables the Scottish Ministers to provide the new heat networks with deemed planning permission.

156. Since local authorities are also relevant planning authorities, the parts of applications will be passed over to them to undertake any necessary checks. The cost of that assessment will be covered by a proportion of Heat Network Consent fees, as it is in the case of Energy Consents (which provides approximately 50% of fees to local authorities). Those costs will be passed on to planning authorities in arrears.

Summary of costs on local authorities

157. Table 21 above presents an overview of the Heat Network Consent administration costs. “Payments to local authority” represents part of the fee that will be passed on to the relevant planning authority to cover costs of processing the deemed planning permission part of an application. Total amount of those payments across 10 years in nominal prices was estimated to range between £2.9 m – £17.4 m. Costs were adjusted by inflation (assumed at 2%).

Consultation

158. The consents team will be responsible for consulting with any relevant stakeholders within the local authority to seek their opinion in relation to the project. The amount of time that local authority officers will

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spend on the consultation will depend on the complexity of the project. It will also be similar to any existing consultations that local authorities are asked to feed into and therefore it is not expected to bring substantial costs to local authorities.

Consent Application and Transfer Scheme

159. Should a local authority want to obtain a Heat Network Consent themselves, they will be required to undertake the same process as any private business and may be subject to fees within a similar range. Therefore the costs to prospective consent holders are also applicable to relevant local authorities.

Costs on other bodies, individuals and businesses

Analysis of the financial implications

Businesses / Prospective consent holders

160. The most impacted group will be those organisations that wish to develop and operate a heat network in Scotland. The preparation of a Heat Network Consent application and the associated application fee will be an additional cost to any prospective project.

Consenting Fees

161. As in paragraphs 139 – 141, the Heat Network Consent will be subject to fees that would cover the costs of processing of the application.

162. The costs of the fees would be in line with the review costs presented in Table 19 and could range from £6,500 to £300,000. These costs however will incorporate a cost of application for planning permission. which on average is around £50,000 for a medium to large sized project as indicated by a stakeholder on the Heat Networks Regulation Working Group³⁷.

³⁷ Heat Networks Regulation Working Group: Recommendations, the Scottish Government, accessed: 29 January 2020.

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Application Costs

163. Consent Fees are not going to be the only cost that businesses will incur while applying for Heat Network Consent. They are also likely to experience additional costs to undertake a series of assessments to accompany the application such as an EIA or socio-economic assessment. They will also need to devote staff time to ensure the application is completed in line with any available guidance.

164. Each of the heat network projects will be different, however it is expected that costs for preparation of the application will be within the lower range of the costs for heat network permit bid preparation (see paragraphs 212 - 216 in Part 5) as all of the information provided in the consent application will also be required at the point of application for heat network permit.

Costs of compliance with the consent conditions

165. Lastly, each consent holder will need to meet costs of compliance with any conditions that have been attached to the consent. Those conditions will vary from project to project and the Scottish Government is unable to calculate their costs to any prospective consent holder at this stage.

Summary of costs on other bodies, individuals and businesses

Businesses

166. Table 22 presents nominal costs to businesses across 10 years. All of the costs were adjusted by inflation (assumed at 2%).

Table 22 – Overview of Heat Network Consent for businesses in nominal prices over 10 years

Year / Nominal Cost Range in (£)	Heat Network Consent			
	Item	Low	Medium	High
Year 3 (2023/2024)	Application Fee	675,857	2,838,599	4,055,141

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Year 4 (2024/2025)	Application Fee	689,374	2,895,371	4,136,244
Year 5 (2025/2026)	Application Fee	703,161	2,953,278	4,218,969
Year 6 (2026/2027)	Application Fee	717,225	3,012,344	4,303,348
Year 7 (2027/2028)	Application Fee	731,569	3,072,591	4,389,415
Year 8 (2028/2029)	Application Fee	746,201	3,134,042	4,477,203
Year 9 (2029/2030)	Application Fee	761,125	3,196,723	4,566,747
Year 10 (2030/2031)	Application Fee	776,347	3,260,658	4,658,082
Total 10 years		5,800,858	24,363,605	34,805,150

Other Bodies

167. During the process of assessing a Heat Network Consent application, it is expected that some key organisations will need to be consulted. At present the Heat Networks (Scotland) Bill does not include a list of statutory consultees, however it is likely that subsequent regulations will introduce relevant requirements. At present, the Energy Consents Unit are required to consult the relevant Planning Authority, SEPA, SNH and Historic Scotland during the assessment process.

168. Since those organisations are currently funded by the Scottish Administration, the consultation costs will be budgeted for within their budgets and no additional cost are expected to be incurred by them.

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Individuals

169. It is not expected that individuals will incur any direct costs in connection with the Heat Network Consent.

Part 4 – Heat network zoning

Context

170. To capitalise on the potential for heat networks in Scotland, and given the Scottish Government’s devolved power to legislate for heat networks, the Scottish Government is keen to fully identify and unlock the potential of the sector now.

171. The two key outcomes from the designation of Heat Network Zones will be to:

- provide the heat network sector with greater awareness of development opportunities within Scotland; and
- identify locations in which policies aimed at reducing the demand risk faced by heat network developers can be suitably targeted.

172. To achieve this, the Bill introduces a duty on local authorities to consider undertaking Heat Network Zoning with a subsequent power to designate Heat Network Zones. While there will be no obligation on local authorities to designate Heat Network Zones, they may request that the Scottish Ministers undertake this on their behalf, as the Scottish Government recognises that the capacity and resources for local authorities to do this will vary.

173. The costs of undertaking the heat network zoning will be covered by the Scottish Administration.

Costs on the Scottish administration

Analysis of financial implications

174. As indicated in Part 1, the Scottish Administration will incur an initial cost in relation to the development of secondary legislation

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and guidance resulting from the Bill. A team within the Scottish Government (as referenced in Part 1) will be responsible for delivery of that work to ensure that all regulatory elements are in alignment.

175. The analysis section presents costs in 2019 prices to enable comparison between similar examples used for the estimation.

Ongoing Oversight

176. Additionally, the Scottish Ministers expect to maintain internal capacity to not only assess any designated zones, but also to undertake zoning on behalf of local authorities should this be requested.

177. The annual costs of the team that would be responsible for oversight of Heat Network Zones would range between £65,145 and £195,436 per annum in 2019 prices (see Table 23).

Table 23 - Heat Network Zoning Oversight Staff costs per annum in 2019 prices

Staff Resource		FTE	(£) 2019
Team Leader @ £74,921	Low	0.25	18,730
	High	0.75	56,190
Senior Advisor / Technical Expert @ £56,862	Low	0.5	28,431
	High	1.5	85,293
Case Worker @ £35,968	Low	0.5	17,984
	High	1.5	53,952
Total Costs	Low		65,145
	High		195,436

Heat Network Zoning

178. Estimates provided by Zero Waste Scotland indicate that a single assessment undertaken by a local authority to identify Heat Network Zones could range between £8,000 and £40,000, subject to the

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level of detail included in the assessment. The total costs across all 32 local authorities is therefore estimated at approximately £256,000 - £1.28 million (Table 24). This cost would be a direct cost to the Scottish Administration if the Scottish Ministers were asked to designate zones on behalf of local authorities. The Scottish Government will look to cover the costs of those local authorities which undertake heat network zoning, accounted for within annual budget rounds.

Table 24 - Estimated Costs of funding the Heat Network Zones designation for all 32 Local Authorities

Cost range	Low	Medium	High
Cost (£) 2019 per 1 LA	8,000	15,000	40,000
Total Cost (£) 2019	256,000	480,000	1,280,000

179. It is expected that local authorities will be required to consider the designation of Heat Network Zones once every five years.

Summary of costs on the Scottish Administration

180. The table below outlines an overview of total costs that the Scottish Administration will incur by introduction of Heat Network Zones. As such, over a 10 year period the Scottish Administration is expected to incur costs within the range of £1.2m - £4.7m in nominal prices (see Table 25). All of the costs were adjusted by inflation (assumed at 2%).

Table 25 – Overview of costs on the Scottish Administration introduced by Heat Network Zones in nominal prices over 10 years.

Year / Nominal Cost Range in (£)	Item	Low	Medium	High

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Year 1 (2021/2022)	Set up costs	Covered in Part 1		
Year 2 (2022/2023)	Set up costs	Covered in Part 1		
Year 3 (2023/2024)	Staff Costs	70,446	140,892	211,339
	Heat Network Zoning Funding	276,831	519,058	1,384,155
Year 4 (2024/2025)	Staff Costs	71,855	143,710	215,566
Year 5 (2025/2026)	Staff Costs	73,292	146,584	219,877
Year 6 (2026/2027)	Staff Costs	74,758	149,516	224,274
Year 7 (2027/2028)	Staff Costs	76,253	152,506	228,760
Year 8 (2028/2029)	Staff Costs	77,778	155,557	233,335
	Heat Network Zoning Funding	305,644	573,082	1,528,219
Year 9 (2029/2030)	Staff Costs	79,334	158,668	238,002

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Year 10 (2030/2031)	Staff Costs	80,920	161,841	242,762
Total 10 years		1,187,110	2,301,415	4,726,288

Costs on local authorities

Analysis of financial implications

181. The analysis section presents costs in 2019 prices to enable comparison between similar examples used for the estimation.

Duty to consider heat network zoning

182. The introduction of a duty for local authorities to consider zoning for heat networks within their area can be classified as an additional resource cost. This consideration however comes before any Heat Network Zoning exercise and will likely involve the review of a local authority’s capacity, available resource, potential heat demand (using Scottish Heat Map), and writing a report making recommendations to Elected Members.

183. It is expected that local authorities do have the expertise in house to do this, following the work undertaken as part of the LHEES pilots. The cost of considering whether or not a local authority will decide to undertake the designation of Heat Network Zones was estimated based on 1 – 3 days of work for a Sustainability or Energy Officer at the local authority. The total costs would range between £218 and £654 per local authority in 2019 prices (see Table 26). The costs were estimated based on an average salary of a Senior Policy Advisor at the Scottish Government due to the lack of consistent information about potential pay rates for relevant posts at local authorities.

Table 26 - Costs 2019 (£) of determination regarding heat network zoning per local authority

Staff resource		Days Required	Cost in (£) 2019
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Energy Manager / Sustainability Officer @ £ 56,862	Low	1	£218
	High	3	£654

184. The financial implications of this proposal in total for all 32 local authorities would range between £6,971 and £20,915 in 2019 prices and will occur in Year 3 after the Heat Networks Bill receives Royal Assent.

Heat Network Zoning

185. Since 2017 the Scottish Government has supported local authorities to pilot the development of LHEES³⁸, which include the identification of Heat Network Zones.

186. Pilots have been also supported by Zero Waste Scotland who have provided capacity building support to local authorities and also have extensive experience in the development of feasibility studies for heat networks to estimate the costs of undertaking the heat network zoning exercise. At the request of the Scottish Government, Zero Waste Scotland prepared an estimate of costs involved in preparation of the assessment of an area suitable for heat network (see Table 27).

187. The estimates provided looked at three different options for analysis that could be used to determine a Heat Network Zone, based on the time and depth of research involved in each of them. It is expected that option 2 and 3 would be the most appropriate in determining the Heat Network Zones as they offer a high standard of analysis which will be needed to ensure that areas are indeed suitable for development of heat networks. A breakdown of elements involved in each of the options as well as estimates of their potential costs are presented in Table 27. Staff costs were estimated based on Zero Waste Scotland rates.

188. Although each of the assessment costs is presented with its own range, it was assumed that the costs will likely fall within the high end of each of them, as the exercise is likely to be undertaken on a wider local authority area. It is likely that more than one zone will be identified,

³⁸ Energy Efficiency: Energy Efficient Scotland, the Scottish Government, accessed: 28 January 2020.

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which will bring costs of a zoning exercise further towards the higher end of the overall range.

Table 27 - Local Authority / the Scottish Ministers appraisal for Heat Network Zones – cost estimates

	Option 1 - Strategic Assessment	Option 2 - Pre-feasibility Assessment	Option 3 - Feasibility Assessment
Study type	Strategy-level, desktop study to define and shortlist opportunities across a wider area	Project-level, desktop study	Project-level study, primarily desktop; site visit to investigate network routes, plant rooms, layout options
Stakeholder engagement	For data only	Important for core customers	More extensive, including all anchor loads, utilities, others as appropriate
Demand data	Based on benchmarked data e.g. the Scottish Heat Map, may be supplemented if more accurate data is readily available	Use of metered data where available & benchmarks for equivalent buildings	Strong preference for metered data
Peak demand	Not considered	Rule of thumb estimates for peak demand and plant size	Demand profiling to identify peaks and size plant
Cost detail	No costing, or high-level capital costing based on	Generic costs based on standard	Costs based on supplier engagement for

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	benchmarking tools e.g. DHOAT	sources / previous project experience	main plant / previous project experience
Heat supply	Technology agnostic assessment, may identify local sources of low carbon heat	Options appraisal included with limited technical appraisal of shortlisted options	Options appraisal included + technical consideration of shortlisted options
Viability appraisal	Use of metrics based on operational networks in the UK e.g. Linear Heat Density (~4MWh/m/y) or MWh/m ²	High-level techno-economic model to establish NPV / carbon savings over 20-40 year assessment period	Detailed techno-economic model to establish NPV / carbon savings over 20-40 year assessment period
Time required	~2 to 10+ person days (scalable with complexity of area / detail in analysis / no. of opportunities appraised)	~10 to 20 person days	~40+ person days
Expertise required	GIS, some data manipulation, some technical awareness to complete; technical oversight needed	Technical expertise required, potential to develop toolkit for simplified appraisal	Technical expertise essential
Cost of delivery 2019 (£)	~1,000 – 8,000	~7,000 - 15,000	~25,000 – 40,000

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189. Costs of heat network zoning will ultimately depend on several factors, in particular, the guidance that will be issued by the Scottish Ministers. The guidance will be designed to ensure that the comprehensive assessment of a local authority area was undertaken as well as good quality data was taken under consideration.

Summary of costs on local authorities

190. Based on estimates provided by Zero Waste Scotland it was possible to establish a range of costs that will be incurred while undertaking heat network zoning. It is expected that the costs of undertaking a heat network zoning exercise will fall into the higher end of the £8,000 - £40,000 (2019 prices) range with options 2 and 3 being the most likely to be the best methods to determine a Heat Network Zone.

191. As indicated in the previous section, these costs will be covered by the Scottish Ministers and therefore it is not expected to bring an additional burden to local authorities as outlined in Table 28. All of the costs were adjusted by inflation (assumed at 2%).

Table 28 – Overview of costs on local authorities over 10 years in nominal prices

Year / Nominal Cost Range in (£)	Item	Low	Medium	High
Year 1 (2021/2022)	Consultation Costs	Undefined		
Year 2 (2022/2023)	Consultation Costs	Undefined		
Year 3 (2023/2024)	Designation determination staff costs	7,544	15,087	22,631

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	Heat Network Zoning Funding	- 276,831	- 519,058	- 1,384,155
	Heat Network Zoning Expenditure	276,831	519,058	1,384,155
Year 4 - 7 (2024/2028)	N/A			
Year 8 (2028/2029)	Designation determination staff costs	8,329	16,658	24,986
	Heat Network Zoning Funding	- 305,644	- 573,082	- 1,528,219
	Heat Network Zoning Expenditure	305,644	573,082	1,528,219
Year 9 - 10 (2029/2031)	N/A			
Total 10 years		15,872	31,745	47,617

Costs on other bodies, individuals and businesses

192. Heat Network Zoning is not expected to result in costs to other bodies, individuals or businesses.

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Part 5 – Heat network zone permits

Context

193. The delivery of sufficient heat networks needed to significantly contribute to Scotland’s climate change targets is unlikely to be achieved through market forces alone. The Bill aims to maximise the deployment of large-scale, strategically-sited heat networks by introducing Heat Network Zone Permits. These will offer the market (on a competitive basis) the opportunity to be the sole heat network with a Heat Network Zone.

194. By legislating to enable a single heat network within a Heat Network Zone the Bill provides investors with assurances regarding the potential customer base, from which to recover the initial infrastructure costs, without the uncertainty caused by a potential future competitor.

195. Conditions would be placed on Heat Network Permit holders to ensure supply was provided appropriately.

196. The designation of a Heat Network Zone would not obligate the Scottish Ministers to award a Heat Network Permit, but it will be a powerful tool to deliver the infrastructure in those areas that have been deemed most suitable for heat networks.

Costs on the Scottish administration

Analysis of financial implications

197. The costs of developing and establishing the Heat Network Zone Permits system is captured in Part 1. The ongoing administration of the system is likely to be undertaken by the Scottish Ministers or added to an existing body.

198. The analysis section presents costs in 2019 prices to enable comparison between similar examples used for the estimation.

199. The costs of administering Heat Network Zone Permits will be mainly associated with staff costs. For example, to ensure the successful award of a Heat Network Zone Permit, staff of the permitting

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authority will be required to initiate a competition and process any subsequent applications and these costs are estimated in Table 29.

Table 29 - Costs of the Heat Networks Permit Oversight Team per annum in 2019 prices

Staff Resource		FTE	Cost in (£) 2019
Admin Staff @ £30,271	Low	0.5	£15,135.50
	High	1	£30,271
Case Officers @ £43,144	Low	0.5	£21,572
	High	2	£86,288
Case Managers @ £56,862	Low	1	£56,862
	High	3	£170,586
Team Manager @ £74,921	Low	0.5	£37,460.50
	High	1	£74,921
Unit Manager @ £91,901	Low	0.1	£9,190.10
	High	0.5	£45,950.50
Total Costs	Low		£140,220
	High		£408,017

200. In addition to the staff costs, it is likely that the team will require additional resources to be budgeted for such as IT equipment, travel, accommodation costs, etc. Those costs however will largely depend on the number of staff and ability to share resources across new teams that will be working within heat networks regulation and therefore were not included into the estimates.

201. It is important to note that Heat Network Zone Permits are likely to be issued following the Heat Network Zoning introduced as part of Heat Networks Bill. Since the work on guidance and additional regulation is

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not expected to be complete by the end of 2023, it is likely that first zones will be designated in Year 3 following the Bill receiving Royal Assent. Table 30 outlines the expected costs on the Scottish Administration coming from the introduction of Heat Network Zone Permits.

202. The main consistent cost that will be driving this activity are staff costs as described in paragraph: 206 - 207. However, it is expected that specialist assistance from a procurement team will be required to tender for a contract to administer a scheme. Based on an estimate provided by a team managing large infrastructure grant funding scheme for the Scottish Government, the costs of procurement support were estimated to be between £50,000 and £150,000 in 2019 prices.

203. Furthermore, following receipt of any applications for Heat Network Zone Permits, a high level of due diligence will be required to ensure that proposed projects offer technologically, legally and financially sound heat networks. The average cost of such due diligence assessment was estimated to be approximately £200,000 per application, in 2019 prices. The total cost of due diligence will depend highly on the number and complexity of applications as well as the level of scrutiny that the Scottish Government will prescribe in subsequent regulations.

204. The level of due diligence required on applications for Heat Network Zone Permits will vary, and as such there will be a range of costs incurred by developers. Since it is not clear how many applicants or suitable areas for Heat Network Zone Permits will emerge following heat network zoning, it was assumed that all received applications will undergo full due diligence assessment.

205. To recover some of the costs associated with processing the applications, the Scottish Ministers will be able to charge fees for Heat Network Zone Permit applications. For the purposes of this document it was assumed that fees charged by the Scottish Government would be equal to the costs associated with due diligence assessment cost which was identified to be £200,000 in 2019 prices. The costs of staff are likely to be an ongoing expenditure as the team will also provide oversight of the Heat Network Zone Permits and conditions attached to them following the award.

Summary of costs on the Scottish Administration

206. Table 30 outlines the total costs of Heat Network Zone Permits to the Scottish Administration across 10 years in nominal prices,

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with an assumption that issuing Heat Network Zone Permits will take place over 2 years after Heat Network Zoning, which will occur twice within the 10 year period. All of the costs were adjusted by inflation (assumed at 2%).

Table 30 – Overview of Heat Network Zone Permits Administration costs on the Scottish Administration in nominal prices over 10 years

Year / Cost Range (£)	Item	Low	Medium	High
Year 1	N/A			
Year 2	N/A			
Year 3 (2023/2024)	Staff Costs	151,630	296,424	441,217
	Procurement fee for tender of contract to administer scheme	54,069	108,137	162,206
Year 4 (2024/2025)	Staff Costs	154,663	302,352	450,042
	Specialist technical, financial and legal due diligence	661,799	1,323,598	1,985,397
	Income from Permit Fees	- 661,799	- 1,323,598	- 1,985,397
	Staff Costs	157,756	308,399	459,042

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Year 5 (2025/2026)	Specialist technical, financial and legal due diligence	1,350,070	2,700,140	5,400,280
	Income from Permit Fees	- 1,350,070	- 2,700,140	- 5,400,280
Year 6 (2026/2027)	Staff Costs	160,911	314,567	468,223
Year 7 (2027/2028)	Staff Costs	164,129	320,858	477,588
Year 8 (2028/2029)	Staff Costs	167,412	327,276	487,139
	Procurement fee for tender of contract to administer the scheme	59,696	119,392	179,088
Year 9 (2029/2030)	Staff Costs	170,760	333,821	496,882
	Specialist technical, financial and legal due diligence	730,680	2,192,039	4,384,078
	Income from Permit Fees	- 730,680	- 2,192,039	- 4,384,078

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Year 10 (2030/2031)	Staff Costs	174,175	340,498	506,820
	Specialist technical, financial and legal due diligence	745,293	2,235,880	4,471,759
	Income from Permit Fees	- 745,293	- 2,235,880	- 4,471,759
Total 10 years		1,415,200	2,771,723	4,128,247

207. Total costs of Heat Network Zone Permits for the Scottish Administration were estimated to range between £1.4 m to £4.1 m in nominal prices across 10 years.

Costs on local authorities

208. It is not expected that local authorities would incur additional costs as a result of Heat Network Zone Permits, however should they wish to participate in the application for such a Permit they are likely to incur similar costs to those presented in section below.

Costs on other bodies, individuals and businesses

Analysis of financial implications

209. Heat Network Zone Permits are expected to impact several groups of stakeholders. Firstly, they will influence bodies such as SEPA, Scottish Natural Heritage or Historic Environment Scotland that are expected to play an active role as consultees in any permit applications. Those organisations however are sponsored by the Scottish Government

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and therefore any additional costs will be covered in their budgets. The analysis section presents costs in 2019 prices.

Costs on prospective permit holders

210. The businesses or other types of organisations interested in applying for the Heat Networks Permit are expected to incur costs associated with the preparation of an application, payment of required fees and any compliance with the permit’s conditions.

211. In order to determine the potential costs incurred during the preparation of an application for a Permit, the Scottish Government engaged with industry members who have experience in competing for major contracts across United Kingdom. The cost range indicated by stakeholders varied from £50,000 to £450,000 which included costs of designing the network, legal advice, additional consultancy support and other administrative costs (see Table 31). The amount will largely depend on the size of the proposed network, however it is likely that in the circumstances of Heat Network Zone Permits the projects will be of a substantial size to provide greater certainty to prospective investors.

Table 31 – Estimated Cost to Business for preparation of Heat Networks Permit Bid in 2019 prices

Cost range (£) 2019	Low	Medium	High
Heat Network Permit Preparation Costs	50,000	250,000	450,000

212. Consequently, with an assumption that the average cost for bid preparation was £250,000, it was estimated that businesses will spend between £4.3m – £20.3m in nominal prices in total across 10 years to prepare bids for Heat Network Zone Permits (see Table 33).

213. Following that, the review of assessment costs for the Heat Networks Permit enabled to identify the potential cost of the fees that could be charged by the Scottish Ministers for any applications to cover the processing costs. Fees have been presented in a range as it is expected that applications for smaller projects may be less costly to assess, and

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where there is a significant project to be permitted, the applications may attract significant costs. Table 32 presents the range of potential fees which range from £100,000 to £300,000, in 2019 prices.

Table 32 – Estimated costs of Heat Network Permit Fees in 2019 prices

Cost range (£) 2019	Low	Medium	High
Heat Network Permit Application Fee	100,000	200,000	300,000

Summary of costs on other bodies, individuals and businesses

214. Although the application fees for Heat Network Zone Permits will increase initial investment for interested businesses, the permits will offer a significant benefit in terms of securing the zone for development by a permit holder only.

215. It is expected that prospective permit holders will be granted a Heat Network Consent at a point of applying for the Heat Network Permit (subject to further regulations). There may be some additional charge that will be incurred by the permit holder following the award to cover the costs of processing the Heat Network Consent award, however the specific detail of fees will be determined by subsequent regulations.

216. Overall, the introduction of Heat Network Zone Permits could result in a range of costs between £7.4m - £36.5m in total nominal prices over 10 years for any organisations wishing to enter into the competition (see table 33). All of the costs were adjusted by inflation (assumed at 2%).

Table 33 – Overview of Heat Network Permit costs on prospective permit holders in nominal prices over 10 years

Year / Cost Range (£)		Low	Medium	High

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Year 1 (2021/2022)	N/A			
Year 2 (2022/2023)	N/A			
Year 3 (2023/2024)	N/A			
Year 4 (2024/2025)	Number of applicants	3	6	9
	Bid Preparation	827,249	1,654,498	2,481,746
	Permit Fees	661,799	1,323,598	1,985,397
Year 5 (2025/2026)	Number of applicants	6	12	24
	Bid Preparation	1,687,588	3,375,175	6,750,350
	Permit Fees	1,350,070	2,700,140	5,400,280
Year 6 (2026/2027)	N/A			
Year 7 (2027/2028)	N/A			
Year 8 (2028/2029)	N/A			

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Year 9 (2029 - 2030)	Number of applicants	3	9	18
	Bid Preparation	913,349	2,740,048	5,480,097
	Permit Fees	730,680	2,192,039	4,384,078
Year 10 (2030-2031)	Number of applicants	3	9	18
	Bid Preparation	931,616	2,794,849	5,589,699
	Permit Fees	745,293	2,235,880	4,471,759
Total 10 years	Total Bid Preparation	4,359,802	10,564,571	20,301,892
	Permit Fees	3,487,842	8,451,656	16,241,514
	Total	7,847,644	19,016,227	36,543,406

Part 6 – Powers of licence holders

Context

217. The Expert Commission on District Heating was established in 2012, with a remit to advise the Scottish Government on the

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steps that need to be taken to ensure a major move to district heating in Scotland. In its report³⁹ to the Scottish Government the Expert Commission recognised that practitioners report multiple problems because there is no right of wayleave for district heating pipes, often leading to longer and more expensive pipe runs, legal delays etc. They also identified a need for a right of access for repairs and the right to gain access to a property to install a prepayment meter if the customer defaults; these are already available to other utilities.

218. Those recommendations were further confirmed by the Special Working Group set up by the Scottish Government in 2014⁴⁰ and the most recent Working Group on Heat Network Regulation that was set up in 2019. Similar opinion was provided in response to the Consultation on Heat & Energy Efficiency Strategies, and Regulation of District Heating published in January 2017. Extra rights were mentioned there in context of concessions, whereby the concession winner would get extra rights (e.g. wayleaves) as part of a concession. Following the analysis of responses⁴¹, consultation with stakeholders and initial legal advice, the Scottish Government issued a Second Consultation on Local Heat & Energy Efficiency Strategies and Regulation of District and Communal Heating in November 2017, in response to which the stakeholders reaffirmed a need for additional rights to heat networks operators and developers.

219. The main reason for such consensus in this field comes from the proportion of costs which civil engineering (the digging of trenches and the laying of the pipes) accounts for in a heat network's capital costs. The Energy Technologies Institute⁴² identified that it can be up to 40% of the capital costs. This proportion can increase further in an environment where no specific rights are provided to developers and operators. To ensure that heat networks are recognised at the same level as other utilities, the Heat

³⁹ Recommendations to the Scottish Government, the Expert Commission on District Heating, 14 November 2012.

⁴⁰ Report of the Special Working Group on Regulation, the Special Working Group (of the Expert Commission on District Heating), 12 April 2016.

⁴¹ Consultation on Heat and Energy Efficiency Strategies, and Regulation of District Heating: Analysis of Responses, Why Research, 14 November 2017.

⁴² District Heat Networks in the UK: Potential, Barriers and Opportunities, the Energy Technologies Institute, 12 November 2018.

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Networks Bill will be granting a range of rights for Heat Networks Licence holders:

- Compulsory acquisition of land – power for the Scottish Ministers to authorise a person holding a Heat Networks Licence to compulsorily acquire land required for any purpose connected with the activities authorised by the licence.
- Wayleaves – the Scottish Ministers will have power to grant the necessary wayleave right to install and keep installed pipes and infrastructure on land owned by a third party along with the right for licence holders to access land for the purpose of inspecting, maintaining, adjusting, repairing etc. pipes and infrastructure. The right would be registered with the land.
- Power to carry out survey – under this provision a licence holder or a person authorised by the licence holder will have rights to survey the land for the purpose of determining whether the land is suitable for a purpose connected with the activities authorised by the licence.
- Power to enter land to replace or repair apparatus – under this provision a licence holder or a person authorised by the licence holder will have power to install heat network apparatus in replacement for, or in addition to, existing heat network apparatus that is lawfully situated on, under or over any land; to inspect, maintain, adjust, alter, repair, replace, upgrade, operate or remove any existing heat network apparatus that is lawfully situated on, under or over the land; and to carry out any works to the land that are necessary for or incidental to the powers.

220. Additionally, the Scottish Government is currently working with relevant road works stakeholders to ensure that any such provisions are compatible with the long-established governance processes regarding the access to roads by utility providers. It is expected that an amendment during the passage of the Bill may be brought forward to provide licence holders with road work rights.

221. Estimating the financial implications of additional rights of licence holders is challenging due to the lack of information about the scale of future networks development as well as a need to use mechanisms such as necessary wayleaves or compulsory acquisition rights which are subject to parties failing to reach an agreement voluntarily.

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222. Financial impacts of powers to carry surveys are dependant predominantly on heat network design and the scale of other utilities undertaking works at the same time as heat networks licence holders.

223. Some case studies provided to the Scottish Government provide an insight into the costs on the Scottish Administration, local authorities and businesses that could be minimised by provision of powers for licence holders. Case Studies include:

- Site 1: Site was unable to run the district heating pipe along the preferred road due to issues with land ownership. The impact of this overall was a 9 month delay to the project and estimated cost of £280,000 (legal costs £30,000, preliminary costs £100,000, planning permission costs £50,000, revised designs & pipes £40,000, interest £60,000)
- Site 2: The Heat Network had long negotiations with private land owners to secure wayleaves. The impact is a cost of £25,000 per annum for 25-year term each for 3 landowners. It also delayed construction, with a cost of £200,000.
- Site 3: Due to extensive underground services, a Heat Network requested approval (from a local authority Highways Department) to install heat pipework at a shallower depth and install protective capping, but this was declined. The effect of this was rerouting the pipework at an additional cost of £330,000.

224. Those examples provide insight into the parties that are involved in those cases and that they each had to spend significant amount of time and money to seek a resolution. Additional powers for licence holders would provide for a standardised process which will cut the amount of time spent on negotiations and set out clear responsibilities of each involved party.

Costs on the Scottish administration

Analysis of financial implications

225. In order to estimate the potential financial implications for the Scottish Administration of introducing additional powers for licence holders, examples from the electricity sector were considered alongside

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consultation with industry stakeholders regarding the potential costs and fees they may incur when applying for the rights at the moment. The analysis section presents costs in 2019.

Compulsory Purchase Rights and Network Wayleave Right

226. Following discussions with the Scottish Government's Energy Consents Unit, which is responsible for administering applications of Compulsory Purchase Orders (CPO) and for necessary wayleaves as introduced by the Electricity Act 1989, it was determined that the Act does not provide for any fees to be charged by the Scottish Administration to reflect the costs that are associated with processing such applications.

227. For administering CPOs in England and Wales, the responsible Authority is not charging any fees for processing the applications. Across the UK however, it is clear that the process associated with the considerations of CPOs can involve hearings or inquiries (in England and Wales) which are administered by relevant departments. Those procedures are likely to attract costs to the Scottish Administration, however since the costs are specific to each of the applications it is not possible to estimate the costs to the Scottish Administration on this occasion.

228. The Electricity (Necessary Wayleaves and Felling and Lopping of Trees) (Charges) (England and Wales) Regulations 2013⁴³ and their subsequent amendment in 2017 introduced fees for relevant applications in regard to granting "necessary wayleave" and felling and lopping of trees. The cost of the related application fee was set by 2017 regulations at £236.50 (an increase from price of £34 set by 2013 Regulations).

229. It is expected that similar fees will be charged by the Scottish Ministers for a review of any application for a "necessary wayleave" to cover the costs associated with processing the application. However, it is not possible to estimate the amount of applications for necessary wayleave that will be received from heat network licence holders. Those will be dependent on the number of heat networks being

⁴³ The Electricity (Necessary Wayleaves and Felling and Lopping of Trees) (Charges) (England and Wales) Regulations 2013, the UK Parliament, 1 October 2013.

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developed and, more importantly, by the design of the networks that will indicate the most optimal route for the pipework.

Powers to carry out a survey and to enter land to replace or repair apparatus

230. The Heat Networks (Scotland) Bill will introduce additional powers which relate to access to third party land to carry out a survey or to enter land to replace or repair apparatus. The Bill also requires the licence holder to take care not to cause damage to land or property in exercising its rights, and enables compensation to be paid where necessary.

231. The administrative burden of processing those applications is likely to fall on the Scottish Administration, however it is not possible to estimate the financial implications at this stage.

Summary of financial implications on the Scottish Administration

232. Although additional compulsory purchase of land and necessary wayleaves powers, and processes associated with them will result in costs to the Scottish Administration, it is not possible to quantify them. Any potential applications will be subject to design of heat networks and the type of land they will be crossing. Furthermore, for those powers to be used there has to be a failure to reach an agreement with a land owner. Examples from the industries with such powers provide evidence that their existence is a sufficient incentive for voluntary agreements between utility and land owner.

Costs on local authorities

Compulsory Purchase Rights and Necessary Wayleaves

233. Additional powers for licence holders in respect to the CPO and necessary wayleaves are not expected to carry financial implications for local authorities, except in situations where the land in ownership of the local authority is being subject to either CPO or necessary wayleave. However, since the local authorities will be responsible for granting any deemed planning permissions for the consented projects, those situations are not expected to occur.

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Powers to carry out a survey and to enter land to replace or repair apparatus

234. It is not expected that new powers of licence holders will have a significant financial impact on local authorities.

Costs on other bodies, individuals and businesses

Compulsory Purchase Rights and Necessary Wayleaves

235. As outlined above in in paragraph 226 - 229 the administration of CPOs and necessary wayleaves will be provided by the Scottish Ministers. In contrary to the existing system introduced by the Electricity Act 1989, the Heat Networks (Scotland) Bill will provide for fees to be charged for applications for CPO and necessary wayleaves to recoup the costs of any assessment that may be required. The fees will be introduced by subsequent regulations and will be developed together with relevant stakeholders.

236. An example of a fee that could be charged for a necessary wayleave can be taken from the Electricity (Necessary Wayleaves and Felling and Lopping of Trees) (Charges) (England and Wales) Regulations 2013 and their subsequent amendment in 2017 which set an application fee at £236.50 (an increase from price of £34 set by 2013 Regulations).

237. In addition to any application fees, the prospective licence holders are likely to experience costs associated with preparing any CPOs and applications for necessary wayleaves as well as earlier negotiations with land owners to agree a voluntary wayleave prior to the formal process.

238. According to the responses to the data request that was issued to industry stakeholders, the CPO processes are not widely used as they are perceived to be costly and can take a significant length of time to be completed. One of the stakeholders indicated that the costs of CPO can vary between £40,000 if the case goes to a Public Local Inquiry and £25,000 if this process is avoided. Those costs however are an estimate and they are not indicative of all of the projects as each of them will require a separate level of scrutiny.

239. The introduction of necessary wayleaves for licence holders is expected to bring a benefit to heat network developers as they currently experience significant costs in negotiating the right to cross land,

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as well as in delays to the project which further increases the total project costs. An example of that was the case study of site 2 in the context section (paragraph 223).

Powers to carry out a survey and to enter land to replace or repair apparatus

240. It is expected that new powers for licence holders will decrease the costs of initial design work as well as further maintenance of the apparatus. However, an exact quantification of the financial implications of these powers cannot be undertaken due to the lack of data on costs for current projects, as well as lack of data on potential design of future heat networks.

Impacts on individuals

241. Finally, individuals will be affected by any disturbance caused by emergency or survey works. Some of the land owners may be affected by usage of powers of necessary wayleave, compulsory acquisition rights and rights to carry out a survey. The Bill, however, provides for regulations to be made for compensation to be paid to land owners (or those otherwise affected), if the licence holder causes damage in exercising its rights or does not restore land to the conditions from prior to the intervention. This follows a well-known model used by other utilities. Heat networks licence holders will be encouraged to work together with other utility providers to minimise disruption wherever possible.

Part 7 – Building assessment reports

Context

242. Non-domestic buildings with large-scale heat demand can act as an ‘anchor load’ for heat network developments. Securing their commitment to connect to the heat network at an early stage can stabilise the financial model of the heat network business and mitigate risk by matching connected demand to investment schedules for infrastructure and energy centre.

243. The Bill will place a duty on building owners to undertake an assessment of the viability of their buildings to connect to heat networks.

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Regulations will specify who this duty will apply to but the Scottish Government initially envisages the duty applying to some Scottish Public Authorities, as public sector buildings are especially useful as ‘anchor loads’ as they often provide predictable demand profiles based on data collected by local authorities. However as the Bill also provides a power for the Scottish Ministers to add additional persons, or persons of a specified description by regulations, the scope of this duty could be extended in future.

244. There are around 20,000 public sector buildings in Scotland⁴⁴, data from which would significantly enhance the accuracy of Heat Network Zones as well as raise awareness of any opportunities to connect to low carbon heat networks within public sector organisations.

245. Public sector bodies are already legally required to reduce greenhouse gas emissions and support Scotland’s adaptation to a changing climate by the Climate Change (Scotland) Act 2009⁴⁵. They are also legally required to report annually on their greenhouse gas emissions and what they are doing to help adapt to a changing climate through the Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Order 2015.⁴⁶

246. The content of a Building Assessment Report will be determined by regulations, but it is not envisaged to be a resource-intensive exercise as some of the information that may be required would already be available to the public sector bodies as it enables them to calculate their greenhouse gas emissions from their building estate. It is likely to involve collating existing information that a Building or Energy Manager should have to hand, and forwarding this to the relevant local authority and the Scottish Ministers.

⁴⁴ Energy Efficient Scotland: Route Map, the Scottish Government, 2 May 2018, accessed: 28 January 2020.

⁴⁵ Climate Change (Scotland) Act 2009, the Scottish Parliament, 24 June 2009.

⁴⁶ The Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Order 2015, the Scottish Parliament, 22 November 2015.

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Costs on Scottish administration

247. It is likely that administration of any Building Assessment Report and the collection of that information will result in a cost to the Scottish Administration. The costs will be linked to the staff resource required to process incoming reports and distribute the information to local authorities that may require it to undertake Heat Network Zoning.

248. This activity is expected to be undertaken by the Heat Networks Zoning staff whose costs have been estimated in Part 4, paragraph 177-178. The Administration of Building Assessment Reports will be one of the functions of the team.

249. It is also expected that the Scottish Administration itself will incur costs associated with undertaking the Building Assessment Report. Costs per assessment of one building are likely to range between £69 and £207 in 2019 prices. It is expected however that the costs for the Scottish Administration will fall within the lower end of this range since it has a centralised facilities team that will be able to provide this information from existing records.

Costs on local authorities, other bodies, individuals and businesses

Analysis of financial implications

250. As outlined above, most of the public sector bodies are already reporting on their greenhouse gas emissions and therefore some of the information that may be required would already be available to relevant responsible persons.

251. The time for undertaking the building assessment exercise was estimated to vary between 0.5 and 1.5 days of work for a Building Manager accounting to the cost between £69 and £207 per building, in 2019 prices. The costs were estimated based on an average salary of Building Manager at the Scottish Government due to the lack of consistent information about potential pay rates for relevant posts at local authorities and other public sector estate.

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Summary of financial implications

252. The financial implications across the whole public sector estate was calculated to range between £3.1 m – £9.4 m in nominal prices across 10 years (see Table 34). Costs were adjusted by inflation (assumed at 2%). It was assumed that the assessment would take place alongside any Heat Network Zoning exercise and would be undertaken across 20,000 public sector buildings.

Table 34 - Cost of Building Sector Assessment across public sector estate in Scotland in nominal prices across 10 years

Year / Nominal Cost Range in (£)	Low	Medium	High
Year 1 (2021/2022)	N/A		
Year 2 (2022/2023)	N/A		
Year 3 (2023/2024)	1,492,292	2,984,584	4,476,876
Year 4 (2024/2025)	N/A		
Year 5 (2025/2026)	N/A		
Year 6 (2026/2027)	N/A		
Year 7 (2027/2028)	N/A		
Year 8 (2028/2029)	1,647,611	3,295,222	4,942,833

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Year 9 (2029/2030)	N/A		
Year 10 (2030/2031)	N/A		
Total 10 years	3,139,903	6,279,806	9,419,708

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Part 8 – Summary of bill’s financial implications

Summary

253. This section provides a summary of the overall financial implications of the Heat Networks (Scotland) Bill.

254. Although the financial implications on businesses and organisations that wish to develop heat networks may seem to be significant, it is noted that this sector has been operating without oversight to date and this was identified as one of the barriers to its growth. The proposed regulation will result in costs to businesses, however it will also enable fit and proper competitors to enter the market and bring highly effective heat networks to consumers which has the potential to grow into a large market.

255. The implications on individuals are considered in this part of the document as the proposals on their own are not likely to have significant influence on individuals, however the Bill as a whole has potential to bring significant benefits to individuals in Scotland.

256. Total quantified cost of the Bill to the Scottish Administration over 10 years is estimated to range between £5,467,713 and £20,470,142 in nominal prices.

257. Total quantified cost on local authorities over 10 years is estimated to range between £15,872 and £47,617 in nominal prices. Additionally, local authorities will also incur some percentage of costs associated with Building Sector Assessment which was calculated for all public bodies in Scotland and is included in the total sum provided for other bodies, individuals and businesses.

258. Finally, the total quantified cost on other bodies, individuals and businesses over 10 years was estimated to range between £24,472,191 and £94,567,569 in nominal prices.

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Costs on the scottish administration

Heat Networks Bill Provision	Financial Implications over 10 years in nominal prices	Relevant paragraph
Delegated Powers	<p>In order to implement provisions included in the Bill, the Scottish Ministers will be required to prepare subsequent regulations and guidance.</p> <p>Resource cost: £524,353 - £1,156,277</p>	35 – 43
Heat Networks Licensing	<p>The Heat Network Licensing System is designed to ensure that costs incurred by licence application reviews and licence maintenance by licensing authority are offset by the fees and charge paid by the licence holders. Any costs and income will depend on the number of applications received by the licensing authority, but are assumed to net to nil. Therefore the total net cost on the Scottish Administration is identified to be that incurred during the set up phase of the licensing authority.</p> <p>Resource Cost: £1,046,179 - £7,103,372</p>	55 - 111
Heat Network Consent	<p>Heat Network Consent will ensure that only strategic heat network projects will get approval. In order to ensure a high standard of projects and with lack of ongoing fees or charge from consent holders, it is expected that the Scottish Administration will incur ongoing costs to maintain staff to provide administrative assistance and oversight to the Heat Network Consent. Expenditure incurred on Heat Network Consents review is assumed to be</p>	131 - 154

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	<p>offset by application fee income, therefore total net costs remaining are estimated to relate primarily to maintaining a permanent staff team and transfer schemes.</p> <p>Resource Cost: £1,294,572 – £3,355,957</p>	
Heat Network Zones	<p>Heat Network Zones will help to inform the strategic location and development of heat networks in Scotland. They will provide a clear signal to the industry about potential local opportunities. The Scottish Administration will fund local authorities wishing to designate a Heat Network Zone and will maintain a team to undertake heat network zoning should any local authority request for it to be done on their behalf.</p> <p>Resource Cost: £1,187,110 - £4,726,288</p>	174 - 180
Heat Network Zone Permits	<p>Heat Network Zone Permits will provide an extra level of certainty for investors entering the market in Scotland. In order to ensure that only high quality and reliable projects are trusted with the permit, the Scottish Administration will ensure a high level of due diligence is undertaken during the scrutiny of applications. Expenditure incurred on assessment of permit applications is assumed to be offset by application fee income, therefore total net costs remaining are estimated to relate primarily to a central staff team providing oversight to the process. To achieve that a central team will provide oversight to the process.</p> <p>Resource Cost: £1,415,200 - £4,128,247</p>	196 - 206
Additional Powers for	<p>Although additional compulsory purchase of land and necessary wayleaves powers, and</p>	224 - 231

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Licence Holders	processes associated with them will result in costs to the Scottish Administration, it is not possible to quantify them. Any potential applications will be subject to design of heat networks and the type of land they will be crossing. Furthermore, for those powers to be used there has to be a failure to reach an agreement with a land owner. Examples from industries with such powers provide evidence that their existence is a sufficient incentive for voluntary agreements between utility and land owner.	
Building Assessment Reports	The Scottish Administration will incur costs associated with collecting and processing the Building Assessment Reports. Those tasks however will be covered by the Heat Network Zone Team.	267 - 248

259. A detailed table with a break down over each year is provided in Annex A.

Costs on local authorities

Heat Networks Bill Provision	Financial Implications over 10 years in nominal prices	Relevant paragraph
Delegated Powers	In order to implement provisions included in the Bill, the Scottish Ministers will be required to prepare subsequent regulations and guidance. It is expected that local authorities will play an active role in the development of some of the guidance and regulation. As with other Scottish Administration Consultations, the local	44 - 45

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	authorities will be expected to provide input within their existing capacity.	
Heat Networks Licensing	Local authorities that wish to operate a heat network on their own are likely to incur costs associated with obtaining a licence which can range from £3,150 - £5,250 per licence. They will however, benefit from pre-approved range of licence holders should they wish to procure a third party company, which may save some due diligence costs during the procurement process.	112 - 114
Heat Network Consent	Heat Network Consent will ensure that only strategic heat network projects will get an approval. Since Heat Network Consent will provide the deemed planning permission and local authorities are also relevant Planning Authorities, it is expected that any costs associated with the processing of such applications will be covered from Heat Network Consent fees as it is the case in Energy Consents. Resource Cost: £0 – £0	155 - 159
Heat Network Zones	Heat Network Zones will inform the strategic location and development of heat networks in Scotland. They will provide clear signal to the industry about potential local opportunities. Local authorities will be expected to determine whether they wish to designate Heat Network Zones. Any costs associated with that will be covered within existing local authority capacity. Resource Cost: £15,872 - £47,617 The Scottish Administration will fund local authorities wishing to designate Heat Network	181 - 190

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	<p>Zones and will maintain a team to undertake heat network zoning should any local authority request for it to be done on their behalf. In this way all costs associated with Heat Network Zones will be met by the Scottish Administration and will be nil for local authorities.</p> <p>Resource Cost: £0 - £0</p>	
Heat Network Zone Permits	Heat Network Zone Permits will provide an extra level of certainty for investors entering the market in Scotland. Local authorities wishing to apply for a permit will incur the same costs as other organisations. Detailed costs are outlined in the section below.	207
Additional Powers for Licence Holders	Additional powers for licence holders are not expected to carry financial implications for local authorities, except in situations where the land in ownership of the local authority is being subject to either a Compulsory Purchase Order or a necessary wayleave. However, since the local authorities will be responsible for granting any deemed planning permissions for the consented projects, those situations are not expected to occur.	232 - 233
Building Assessment Reports	It is expected that local authorities will incur costs associated with preparation of Building Assessment Reports. A full costs estimation is provided for all public sector bodies in the section below and ranges between £3,139,903 and £9,419,708.	246 - 248

260. A detailed table with a break down over each year is provided in Annex B.

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Costs on other bodies, individuals and businesses

Heat Networks Bill Provision	Financial Implications over 10 years in nominal prices	Relevant paragraph
Delegated Powers	Other bodies, individuals and businesses are expected to play a vital role in the development of subsequent regulation and guidance. It is recognised that each of the involved organisations will incur some cost associated with responding to consultations or attending events, however those activities are often part of an organisations' activities and therefore the financial implications were not quantified.	46 - 48
Heat Networks Licensing	<p>The Heat Networks Licensing System was designed to ensure that costs incurred by licence application reviews and licence maintenance by the licensing authority are offset by the fees and charges paid by the licence holders. All of the licence holders will be expected to pay a fee with prices ranging from £3,150 - £5,250 per licence in 2019 prices and an annual admin charge estimated to be between £7,000 and £29,000 in 2019 prices. Setting appropriate fees will be undertaken together with stakeholders within regulations and they may vary depending on the size of the networks. The costs outlined in this document are indicative only.</p> <p>Resource Cost: £6,683,785 - £13,799,305</p>	115 - 123

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Heat Network Consent	<p>Heat Network Consent will ensure that only strategic heat network projects will get an approval. The organisations wishing to develop and operate a new network and extend an existing network will be expected to obtain a Heat Network Consent. The fees were estimated on the basis of existing Energy Consents fees at a range of £6,500 and £300,000 depending on the size of the project.</p> <p>Any fees will include costs of deemed planning permission.</p> <p>Resource Cost: £5,800,858 - £34,805,150</p>	160 - 169
Heat Network Zones	<p>Heat Network Zones will be a backbone to the strategic development of heat networks in Scotland. They will provide a clear signal to industry about potential local opportunities. It is expected that by providing an “investment prospectus” the businesses will find it more attractive and easier to identify opportunities in Scotland. Any potential benefits of heat network zoning were not identified.</p> <p>Any individual living in a Heat Network Zone is likely to benefit from additional low carbon heat source to choose from therefore increasing the competition and potentially driving the costs of heating down.</p>	191
Heat Network Zone Permits	Heat Network Zone Permits will provide an extra level of certainty for investors entering the market in Scotland. Although the initial investment in applying for a permit is expected to be high, the long term benefit of a secure development area can be perceived as a significant benefit. The costs of any permit Application Fee will be used to fund any due	208 - 215

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	<p>diligence required to assess the bid. It is also expected that organisations will incur costs while developing the application itself and although it can be perceived as costly, it will be no more than a detailed Business Plan which would be required in most of the heat network projects needed for investment purposes.</p> <p>Resource Cost: £7,847,644 - £36,543,406</p>	
Additional Powers for Licence Holders	<p>Additional powers for licence holders are expected to level the playing field with other utilities on the market by decreasing the disruption and time needed to obtain necessary permissions to cross third party land and access any roads.</p>	234 - 240
Building Assessment Reports	<p>Public sector bodies will be required by the Heat Networks Bill to undertake an assessment of their estate in relation to their ability to connect to heat networks. This will enable local authorities and/or the Scottish Ministers to undertake heat network zoning more accurately. It is expected that this exercise will be undertaken twice across two years and will require staff time to complete a report using guidance issued by the Scottish Ministers.</p> <p>Resource Costs: £3,139,903 - £9,419,708</p>	249 - 251

261. A detailed table with a break down over each year is provided in Annex C.

Cumulative impacts of the Heat Networks Bill on individuals

262. The KPMG evidence gathering exercise looked at the potential impacts that increase deployment of heat networks and the proposed

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regulation may have on individual consumers. Some of the impacts identified included:

- Consumer pricing and bills – The potential for changes in the levels of consumer bills. These impacts could arise from moving on heat networks which are priced at a different level to their counterfactual⁴⁷ heating source, or potentially from changes in the costs of delivering networks stemming from the incoming regulations or from changes in market structure.
- Consumer disruption from installation – The potential for increased one off disruption for consumers stemming from an increase in the number of heat network developments, and the subsequent impacts these can have on local areas.
- Consumer service offering – The potential for changes in the services offered to consumers alongside their underlying heat supply (heat network or counterfactual gas boiler). For instance, changes in the availability of tariff types, services and technologies.
- Consumer health and wellbeing – Changes in consumer health and wellbeing. In the right circumstances, heat networks have been shown to help eradicate fuel poverty by providing fuel cost savings of up to 36%. A reduction in fuel poverty can improve health and wellbeing by making homes easier and more affordable to heat. Heat networks have also been shown to lead to improved air quality within local areas.

263. While looking at the potential benefits for heat network consumers, KPMG concluded that heat networks could provide savings in aggregate, and that these savings could potentially range up to 36%, with a medium potential saving of around 17% or 1.29p p /kWh. However, it was noted that these savings will depend significantly on the scheme and household type.

264. The price saving benefits of heat networks are also scale-dependent and vary greatly between project sizes. Larger networks are able to generally create higher cost savings, due to their lower average cost of development and operation, driven by factors such as more

⁴⁷ The counterfactual is the heating technology that would have been used in the absence of a heat network.

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consistent demand, storage potential, renewable usage and available business models.

265. Table 35 outlines potential consumer savings based on the counterfactual gas powers boiler which would require an additional annual maintenance costs. For household type, the majority of heat network schemes are deployed in typically smaller higher density housing areas, such as flats or terraced housing. KPMG have therefore used such properties as the suitable counterfactual household. Based on these factors BEIS have calculated that the typical unit price to be around 7.73 p /kWh in 2019 prices. Using this figure, they have outlined a potential saving range visible in table 35.

Table 35 – Potential Consumer Savings

Heat network saving	Low	Medium	High
Mean average (p / kWh)	-2.85	1.29	2.76
Potential Saving (Medium Heat Price)	-37%	17%	36%

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Annex a – the Scottish administration

Year / Nominal Cost Range in (£)	Initial Regulation Development				Heat Network Licensing				Heat Network Consent				Heat Network Zones				Heat Network Zone Permits							
	Item	Low	Medium	High	Item	Low	Medium	High	Item	Low	Medium	High	Item	Low	Medium	High	Item	Low	Medium	High				
Year 1 (2021/2022)	Staff Costs	245,263	382,854	520,445	Regulator Set up	154,348	601,801	1,047,695	Consents Team Set up	Covered in Part 1			Set up costs	Covered in Part 1			Set up costs	Covered in Part 1						
	Consultation Cost	12,057	24,218	51,969																				
Year 2 (2022/2023)	Staff Costs	254,736	392,795	530,854	Regulator Set up	892,131	3,478,410	6,055,677	Consents Team Set up	Covered in Part 1			Set up costs	Covered in Part 1			Set up costs	Covered in Part 1						
	Consultation Cost	12,298	24,702	53,008																				
Year 3 (2023/2024)					Review of applications	131,711	258,880	390,591	Staff Costs	150,830	270,916	391,002	Heat Network Zoning Funding	276,831	519,058	1,384,155	Staff Costs	70,446	140,892	211,339	Staff Costs	151,630	296,424	441,217
					Ongoing costs of licensing	-	-	-	Application Fee Income	675,857	2,838,599	4,055,141					Procurement fee	54,069	108,137	162,206				
					Licence application fee	131,711	258,880	390,591	Payment to Local Authority	337,928	1,419,299	2,027,571					Income from HN Permit Fees	661,799	1,323,598	1,985,397				
					Licence admin charge	-	-	-	Application Processing Costs	337,928	1,419,299	2,027,571					Due diligence	661,799	1,323,598	1,985,397				
Year 4 (2024/2025)					Review of applications	46,326	88,019	134,345	Staff Costs	153,847	276,334	398,822	Staff Costs	71,855	143,710	215,566	Staff Costs	154,663	302,352	450,042	Income from HN Permit Fees	661,799	1,323,598	1,985,397
					Ongoing costs of licensing	575,765	1,131,676	1,707,441	Application Fee Income	689,374	2,895,371	4,136,244					Due diligence	661,799	1,323,598	1,985,397				
					Licence application fee	46,326	88,019	134,345	Payment to Local Authority	344,687	1,447,685	2,068,122					Income from HN Permit Fees	661,799	1,323,598	1,985,397				
					Licence admin charge	575,765	1,131,676	1,707,441	Application Processing Costs	344,687	1,447,685	2,068,122					Due diligence	661,799	1,323,598	1,985,397				
Year 5 (2025/2026)					Review of applications	33,077	66,153	99,230	Staff Costs	156,924	281,861	406,798	Staff Costs	73,292	146,584	219,877	Staff Costs	157,756	308,399	459,042	Income from HN Permit Fees	1,350,070	2,700,140	5,400,280
					Ongoing costs of licensing	789,791	1,539,080	1,539,080	Application Fee Income	703,161	2,953,278	4,218,969					Due diligence	1,350,070	2,700,140	5,400,280				
					Licence application fee	33,077	66,153	99,230	Payment to Local Authority	351,581	1,476,639	2,109,484					Income from HN Permit Fees	1,350,070	2,700,140	5,400,280				
					Licence admin charge	789,791	1,539,080	1,539,080	Application Processing Costs	351,581	1,476,639	2,109,484					Due diligence	1,350,070	2,700,140	5,400,280				
Year 6 (2026/2027)					Review of applications	4,820	4,820	9,639	Staff Costs	160,062	287,498	414,934	Staff Costs	74,758	149,516	224,274	Staff Costs	160,911	314,567	468,223				
					Ongoing costs of licensing	950,179	1,859,046	1,859,046	Application Fee Income	717,225	3,012,344	4,303,348												
					Licence application fee	4,820	4,820	9,639	Payment to Local Authority	358,612	1,506,172	2,151,674												
					Licence admin charge	950,179	1,859,046	1,859,046	Application Processing Costs	358,612	1,506,172	2,151,674												
Year 7 (2027/2028)					Review of applications	4,916	4,916	9,832	Staff Costs	163,264	293,248	423,233	Staff Costs	76,253	152,506	228,760	Staff Costs	164,129	320,858	477,588				
					Ongoing costs of licensing	990,252	1,917,297	1,917,297	Application Fee Income	731,569	3,072,591	4,389,415												
					Licence application fee	4,916	4,916	9,832	Payment to Local Authority	365,785	1,536,295	2,194,708												
					Licence admin charge	990,252	1,917,297	1,917,297	Application Processing Costs	365,785	1,536,295	2,194,708												
Year 8 (2028/2029)					Review of applications	-	5,014	5,014	Staff Costs	166,529	299,113	431,698	Staff Costs	77,778	155,557	233,335	Staff Costs	167,412	327,276	487,139				

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					Ongoing costs of licensing	1,031,548	1,977,133	1,977,133	Application Fee Income	- 746,201	- 3,134,042	- 4,477,203									
					Licence application fee	-	5,014	5,014	Payment to Local Authority	373,100	1,567,021	2,238,602	Heat Network Zoning Funding	305,644	573,082	1,528,219	Procurement fee	59,696	119,392	179,088	
					Licence admin charge	- 1,031,548	- 1,977,133	- 1,977,133	Application Processing Costs	373,100	1,567,021	2,238,602									
					Review of applications	-	5,115	5,115	Staff Costs	169,859	305,096	440,332									
Year 9 (2029/2030)					Ongoing costs of licensing	1,052,179	2,038,596	2,038,596	Application Fee Income	- 761,125	- 3,196,723	- 4,566,747	Staff Costs	79,334	158,668	238,002	Staff Costs	170,760	333,821	496,882	
						Licence application fee	-	5,115	5,115	Payment to Local Authority	380,562	1,598,362									2,283,374
						Licence admin charge	- 1,052,179	- 2,038,596	- 2,038,596	Application Processing Costs	380,562	1,598,362									2,283,374
						Review of applications	-	5,217	5,217	Staff Costs	173,257	311,197									449,138
Year 10 (2030/2031)					Ongoing costs of licensing	1,073,222	2,038,596	2,101,727	Application Fee Income	- 776,347	- 3,260,658	- 4,658,082	Staff Costs	80,920	161,841	242,762	Due diligence	745,293	2,235,880	4,471,759	
						Licence application fee	-	5,217	5,217	Payment to Local Authority	388,174	1,630,329									2,329,041
						Licence admin charge	- 1,073,222	- 2,038,596	- 2,101,727	Application Processing Costs	388,174	1,630,329									2,329,041
						Review of applications	-	5,217	5,217	Staff Costs	173,257	311,197									449,138
Total 10 years (per HN Bill Part)		524,353	824,569	1,156,277		1,046,479	4,080,211	7,103,372		1,294,572	2,325,264	3,355,957		1,187,110	2,301,415	4,726,288		1,415,200	2,771,723	4,128,247	
Total 10 years																			5,467,713	12,303,182	20,470,142

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Annex b – Local authorities

Year / Nominal Cost Range in (£)	Heat Network Consent				Heat Network Zones			
	Item	Low	Medium	High	Item	Low	Medium	High
Year 1 (2021/2022)				N/A	Consultation Costs			Undefined
Year 2 (2022/2023)				N/A	Consultation Costs			Undefined
Year 3 (2023/2024)	Income/Expenditure to process planning permission applications	337,928	1,419,299	2,027,571	Designation determination staff costs	7,544	15,087	22,631
					Heat Network Zoning Funding	- 276,831	- 519,058	- 1,384,155
					Heat Network Zoning Expenditure	276,831	519,058	1,384,155
Year 4 (2024/2025)	Income/Expenditure to process planning permission applications	344,687	1,447,685	2,068,122				N/A
Year 5 (2025/2026)	Income/Expenditure to process planning permission applications	351,581	1,476,639	2,109,484				N/A
Year 6 (2026/2027)	Income/Expenditure to process planning permission applications	358,612	1,506,172	2,151,674				N/A
Year 7 (2027/2028)	Income/Expenditure to process planning permission applications	365,785	1,536,295	2,194,708				N/A
Year 8 (2028/2029)	Income/Expenditure to process planning permission applications	373,100	1,567,021	2,238,602	Staff Costs	8,329	16,658	24,986
					Heat Network Zoning Funding	- 305,644	- 573,082	- 1,528,219
					Heat Network Zoning Expenditure	305,644	573,082	1,528,219
Year 9 (2029/2030)	Income/Expenditure to process planning permission applications	380,562	1,598,362	2,283,374				N/A
Year 10 (2030/2031)	Income/Expenditure to process planning permission applications	388,174	1,630,329	2,329,041				N/A
Total 10 years		-	-	-		15,872	31,745	47,617

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Annex c – Other bodies, individuals and businesses

Year / Nominal Cost Range in (£)	Heat Network Licensing				Heat Network Consent				Heat Network Zone Permits				Building Assessment			
	Item	Low	Medium	High	Item	Low	Medium	High	Item	Low	Medium	High	Item	Low	Medium	High
Year 3 (2023/2024)	Licence application fee	131,711	258,880	390,591	Application Fee	675,857	2,838,599	4,055,141					Public Sector Building Assessment	1,492,292	2,984,584	4,476,876
	Licence admin charge	-	-	-												
Year 4 (2024/2025)	Licence application fee	46,326	88,019	134,345	Application Fee	689,374	2,895,371	4,136,244	Permit Application Preparation	827,249	1,654,498	2,481,746				
	Licence admin charge	575,765	1,131,676	1,707,441					HN Permit Fees	661,799	1,323,598	1,985,397				
Year 5 (2025/2026)	Licence application fee	33,077	66,153	99,230	Application Fee Income	703,161	2,953,278	4,218,969	Permit Application Preparation	1,687,588	3,375,175	6,750,350				
	Licence admin charge	789,791	1,539,080	1,539,080					HN Permit Fees	1,350,070	2,700,140	5,400,280				
Year 6 (2026/2027)	Licence application fee	4,820	4,820	9,639	Application Fee	717,225	3,012,344	4,303,348								
	Licence admin charge	950,179	1,859,046	1,859,046												
Year 7 (2027/2028)	Licence application fee	4,916	4,916	9,832	Application Fee	731,569	3,072,591	4,389,415								
	Licence admin charge	990,252	1,917,297	1,917,297												
Year 8 (2028/2029)	Licence application fee	-	5,014	5,014	Application Fee	746,201	3,134,042	4,477,203					Public Sector Building Assessment	1,647,611	3,295,222	4,942,833
	Licence admin charge	1,031,548	1,977,133	1,977,133												
Year 9 (2029/2030)	Licence application fee	-	5,115	5,115	Application Fee	761,125	3,196,723	4,566,747	Permit Application Preparation	913,349	2,740,048	5,480,097				
	Licence admin charge	1,052,179	2,038,596	2,038,596					HN Permit Fees	730,680	2,192,039	4,384,078				
Year 10 (2030/2031)	Licence application fee	-	5,217	5,217	Application Fee Income	776,347	3,260,658	4,658,082	Permit Application Preparation	931,616	2,794,849	5,589,699				
	Licence admin charge	1,073,222	2,038,596	2,101,727					HN Permit Fees	745,293	2,235,880	4,471,759				
Total 10 years (per HN Bill Part)		6,683,785	12,939,559	13,799,305		5,800,858	24,363,605	34,805,150		7,847,644	19,016,227	36,543,406		3,139,903	6,279,806	9,419,708
Total 10 years														23,472,191	62,599,197	94,567,569

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Heat Networks (Scotland) Bill

Financial Memorandum

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