



**Midlothian Energy:
A Public/Private Joint
Venture**

**All Energy
10 May 2023**

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Director, Midlothian Energy**

Agenda



- Background
 - Business Case for district heating at Millerhill
 - Procurement of a long term energy partner
- Midlothian Energy Ltd
 - Governance Structure
 - 5 Year Business Plan
 - Benefits of a JV

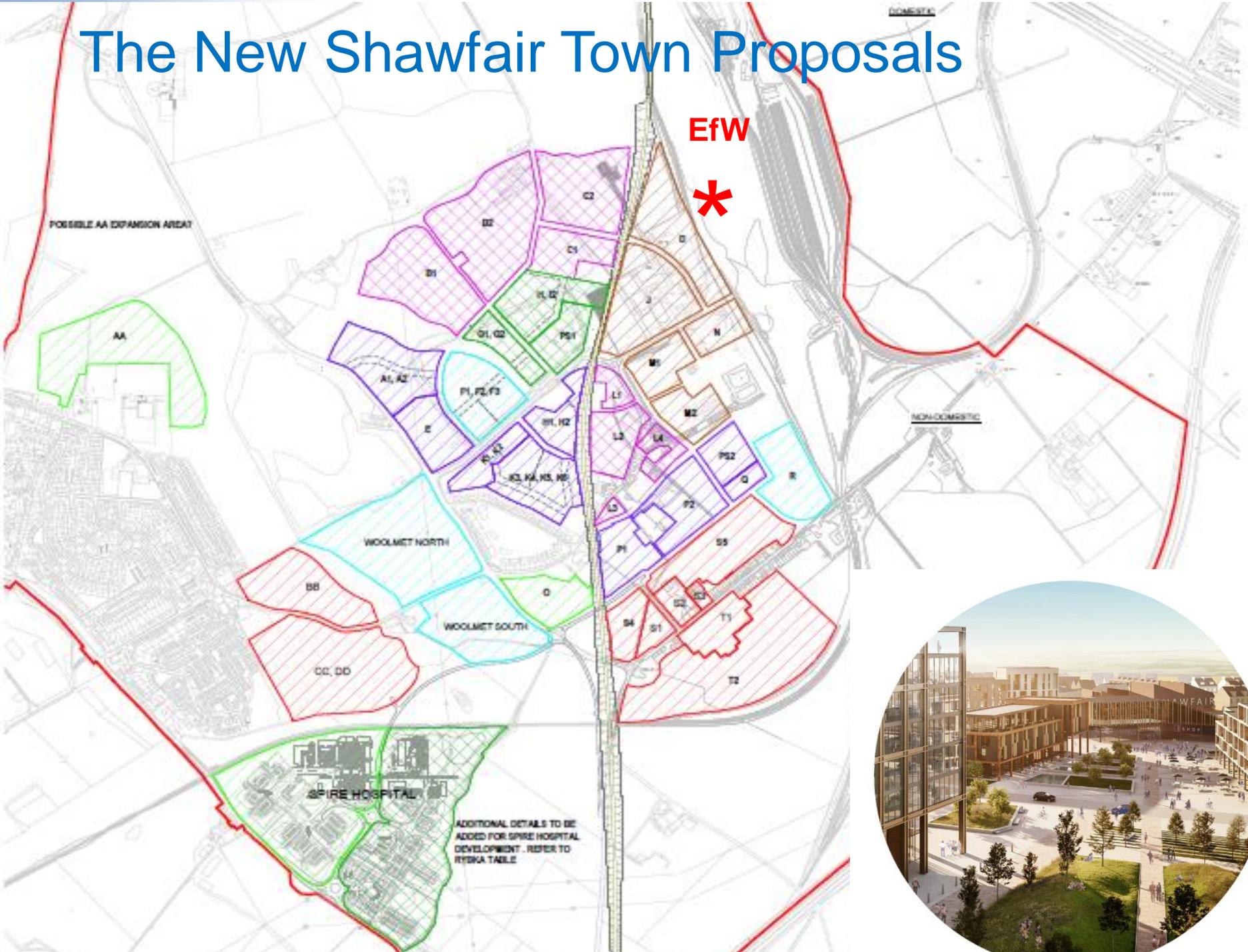
Millerhill EfW



- Procured Jointly by Midlothian and City of Edinburgh Councils
- Operated by FCC Environment
- Commissioned 2019
- Electricity production 13 MWe
- Heat potential 20MWth



The New Shawfair Town Proposals



LCITP District Heating Business Case Conclusions



Conclusions

- The EfW Plant provides a convincing primary source of low carbon heat
- c. £50m first project- Shawfair Town
- There is no viable project without 50% grant funding on capital (£7.3m assumed)
- Internal Rates of Return too low to support a fully private sector investment
- Preferred Option: Council Owned delivery Vehicle

Governance



Midlothian Council Steering Group

- Concern about Risk and Investment
- Joint Venture Option not investigated sufficiently
- Market Sounding and Risk Appraisal
- Content to recommend a JV Approach be adopted as the preferred option

Procurement of an Energy Partner



- Long term Energy Partner rather than a contractor for one project
- Not just district heating – climate emergency
- Not just Midlothian – 7 Public Bodies
- Competitive Dialogue
- Vattenfall Heat UK appointed PB 2020
- Midlothian Energy Limited established on 13 November 2020

Vattenfall



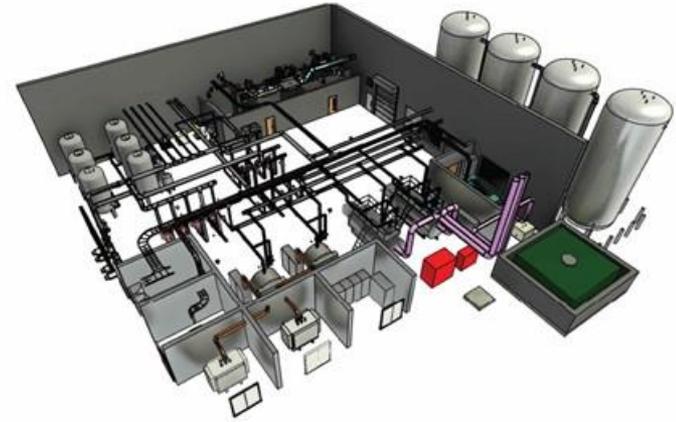
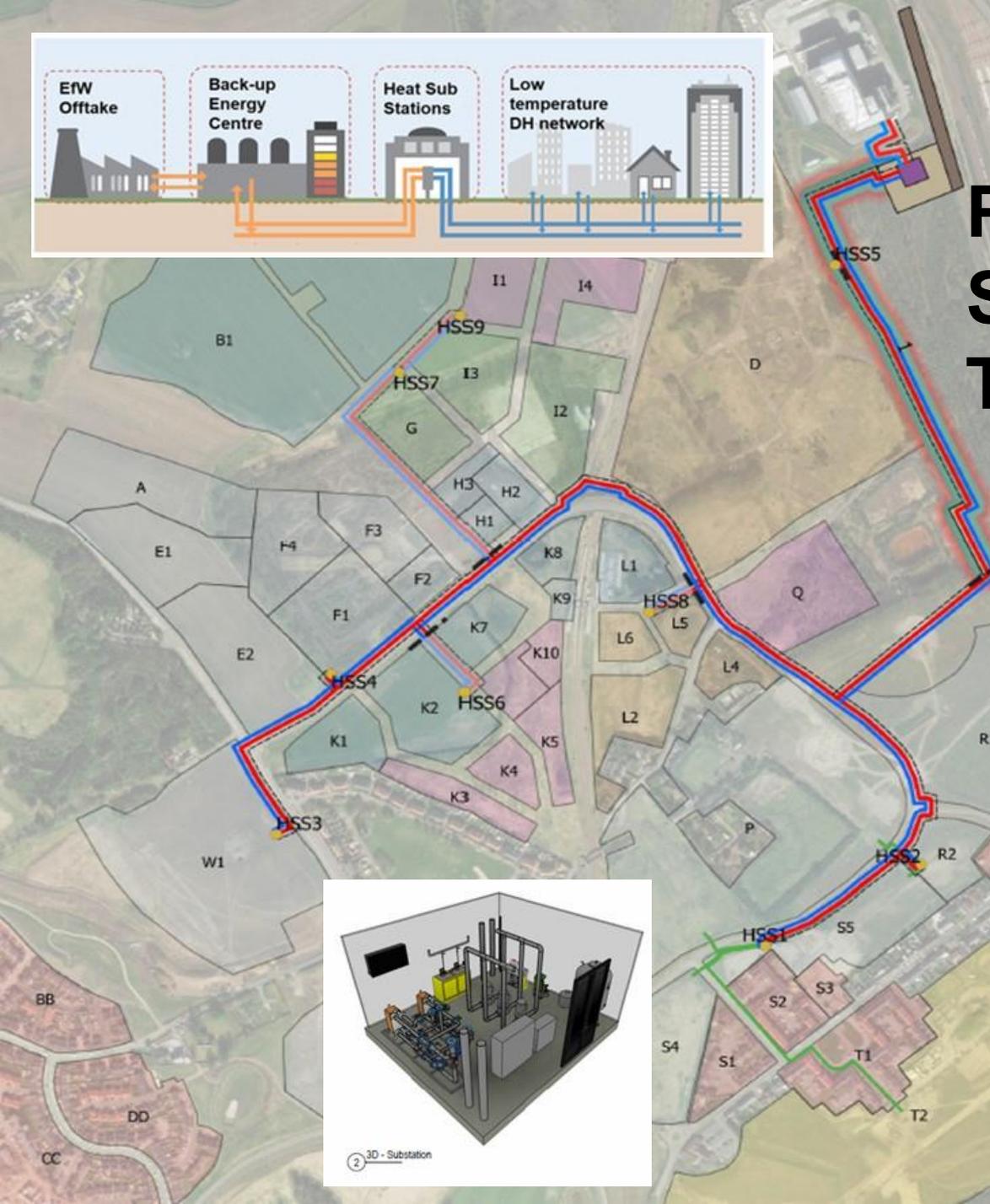
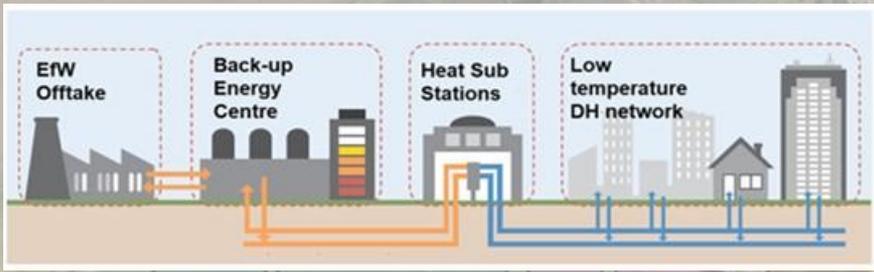
- Vattenfall AB, parent company, 100% owned by Swedish Government;
- Vast heat networks in mainland Europe including Denmark, Netherlands, Sweden and Germany;
- Joint ventures with major cities including Amsterdam;

Midlothian Energy Ltd (Nov 2020)

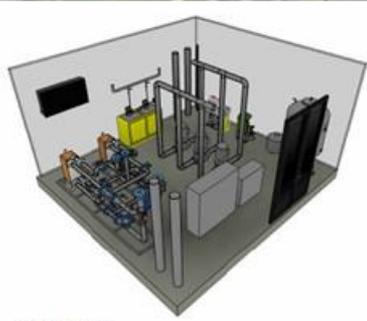


- Shareholders Agreement 50/50 Joint Venture
- 4 Directors: 2 Vattenfall, 2 Midlothian
- ME Board Meetings
- ME Committees
 - Project Origination Committee
 - Finance Committee
 - Various Project Committees
- ME/MC Concession Agreement
- Management Services Agreements
- No Employees

Project 1: Shawfair Town

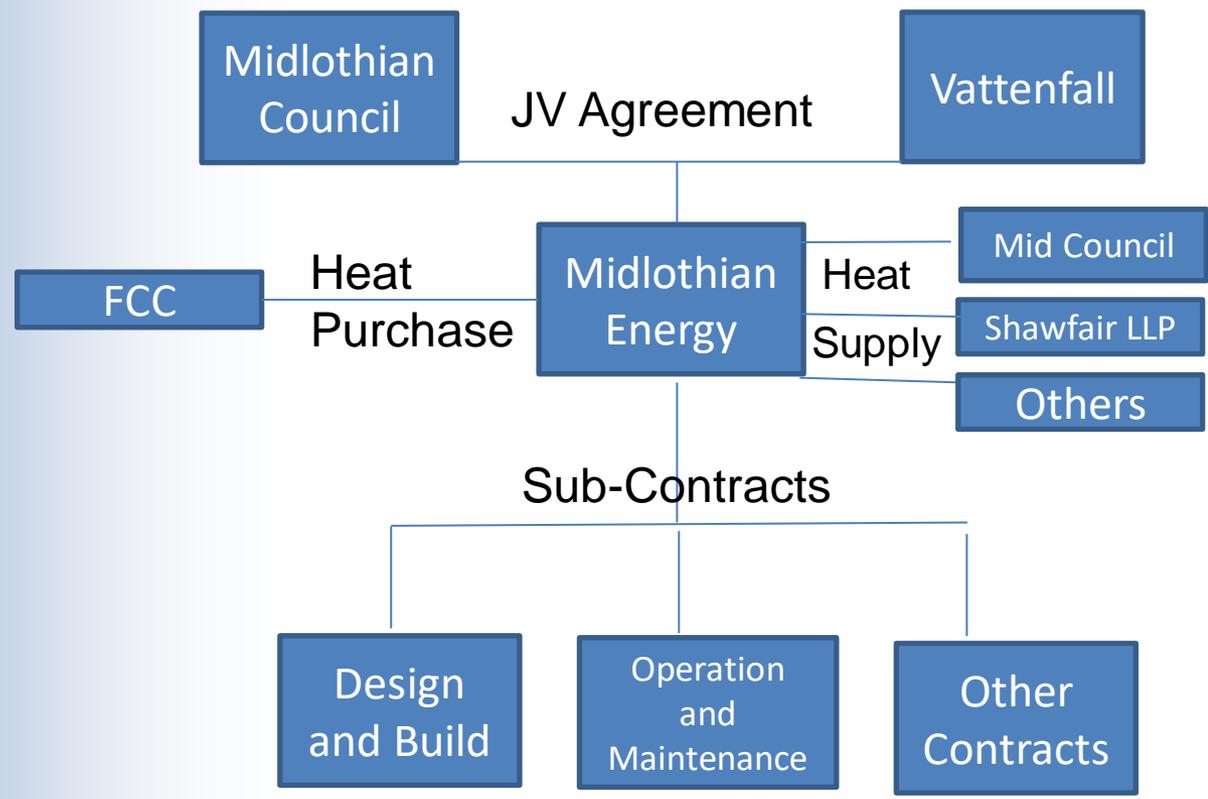


② Energy Centre - 3D, Overview



② 3D - Substation

Midlothian Energy Structure for Project 1



FUNDING



- ESCO
 - 50/50 Equity

- Project 1 c. £50m gross
 - LCITP £7.3m
 - Connection Charges
 - Remaining:
 - Shareholder 1 – 50%
 - Shareholder 2 – 50%

Midlothian Energy Business Plan Opportunities



£100m
5 Years

- ✓ Heat Networks
 - ✓ Expansion of Millerhill
 - ✓ Decentralised DH
- ✓ Heat Storage
 - ✓ Monktonhall Colliery
- ✓ Solar PV
- ✓ Electric Vehicle Charging
- ✓ Direct Wire Electricity
- ✓ NDEE
- ✓ Social Housing EESSH2
- ✓ Council Estate
- ✓ Hyrdo
- ✓ Hydrogen



Seafield WWTW

Seafield Redevelopment

Loth, Seafield & Portobello

Craigentinny Rail Depot

Figgate Park

St Johns Primary School

Duddingston Primary School

Portobello High School

Edinburgh College

Brunstane Primary School

New Brunstane

Fort Kinnaird

Newcraighall Primary

Queen Margaret University

Craigmillar High School

QMU Innovation Park

Craigmillar High Rises

Greendykes

Cauldcoats

Persimmon

Cameron Toll Shopping Centre

King's Buildings

The Inch

Edinburgh BioQtr UoE

REC-ERW & Energy Centre

Moredun Flats

Edinburgh BioQtr DevCo.

Shawfair

- Indicative Network
- Heat Load
- Energy Source

0 1 2 km

MEL, Southwest Edinburgh

JV Structure Benefits



- Council has a highly experienced commercial partner
- Council has existing relationships, land and resources
- Shared risks
- Ability to progress multiple projects smoothly without internal Council resource constraints
- Structure ensures partners interests are aligned
- Commercial knowledge transfer to public sector

QUESTIONS?

