

Housing contributing to climate change in Dundee



Key Policy Drivers in Scotland

Climate Change (Scotland) Act 2019

- Net zero emissions by 2045, interim targets of 75% reduction by 2030 and 90% by 2040

Heat in Buildings Strategy

- By 2030, emissions from buildings should be 68% lower than 2020 levels

Local Heat and Energy Efficiency Strategies (Scotland) Order 2022

Statutory Instrument requiring local authorities to have LHEES strategies and delivery plans in place on or before 31 December 2023

ESSHH and ESSHH2

- Requires social landlords to maximise the number of their properties achieving EPC Band B (a minimum SAP of 81) by 2032
- EESSH2 is expected to be released at the end of the year in draft

Heat Networks (Scotland) Act 2021

- Targets for combined thermal energy to be supplied by heat networks: 2.6 Terawatt hours by 2027 and 6 Terawatt hours by 2030
- Places a duty on local authorities to carry out a review of potential areas for heat networks
- Regulations on Heat Network Consenting, Licensing and Permitting expected to come into force by 2024

Strategic Energy Planning at Local Level



RESOP
Planning Optimisation



**CHANGING
FUTURE**
FOR THE



**Scottish & Southern
Electricity Networks**



Local Area Energy Planning (LAEP)

- Analysis of technical potential for renewable energy generation, waste and low carbon heat sources
- Building future heat and electricity demand mapping and forecasting of buildings (domestic and non-domestic)
- Transport electrification – uptake and charging roll-out. Public, private and heavy goods vehicles
- Heat network analysis

Local Heat and Energy Efficiency Strategy (LHEES)

- Analysis of building energy demand to determine the potential heat decarbonisation with heat networks and LZCHTs
- Identify appropriate interventions for improving poor building energy efficiency
- Removing poor building energy efficiency as a driver for fuel poverty

LAEP+

- Web-GIS based energy planning tool 'LAEP+' is used to visualise network, housing, heating and generation datasets
- Enables digital energy plan which is interactive and collaborative



Meeting Climate Change targets through housing in Dundee



Dundee's strategic approach to housing

- Ensuring that tenants live in warm and comfortable homes that are affordable to heat
- Immediate fabric improvements to prepare homes for later installation of decarbonised heating systems, which will operate at higher efficiencies the better insulated the home
- Measures include window upgrades and installation of highly efficient gas boilers and gas central heating to replace old storage heating

Ongoing Energy Efficiency progress

- External Wall Insulation (EWI) programme concentrated on solid-wall and non-traditional properties – make up around 50% of the council stock
- High percentage of flats in blocks which have become mixed tenure over time
- Measures made possible due to EES:ABS (Energy Efficient Scotland: Area Based Schemes)
- Since the inception of EES:ABS a total of £59m spent - combination of EES:ABS and Council's own capital
- Resulted in 5,227 flats being externally insulated with large swathes of the city transformed
- Estimated that an overall reduction of 2,170 tonnes CO2 per year
- Council tenants and private owners alike seeing greater comfort in their home and reduced heating bills

Energy efficiency achievements and plans going forward

The Council has:

- Replaced windows at 1,226 properties
- Upgraded boilers and heating systems at 2,207

Planned projects:

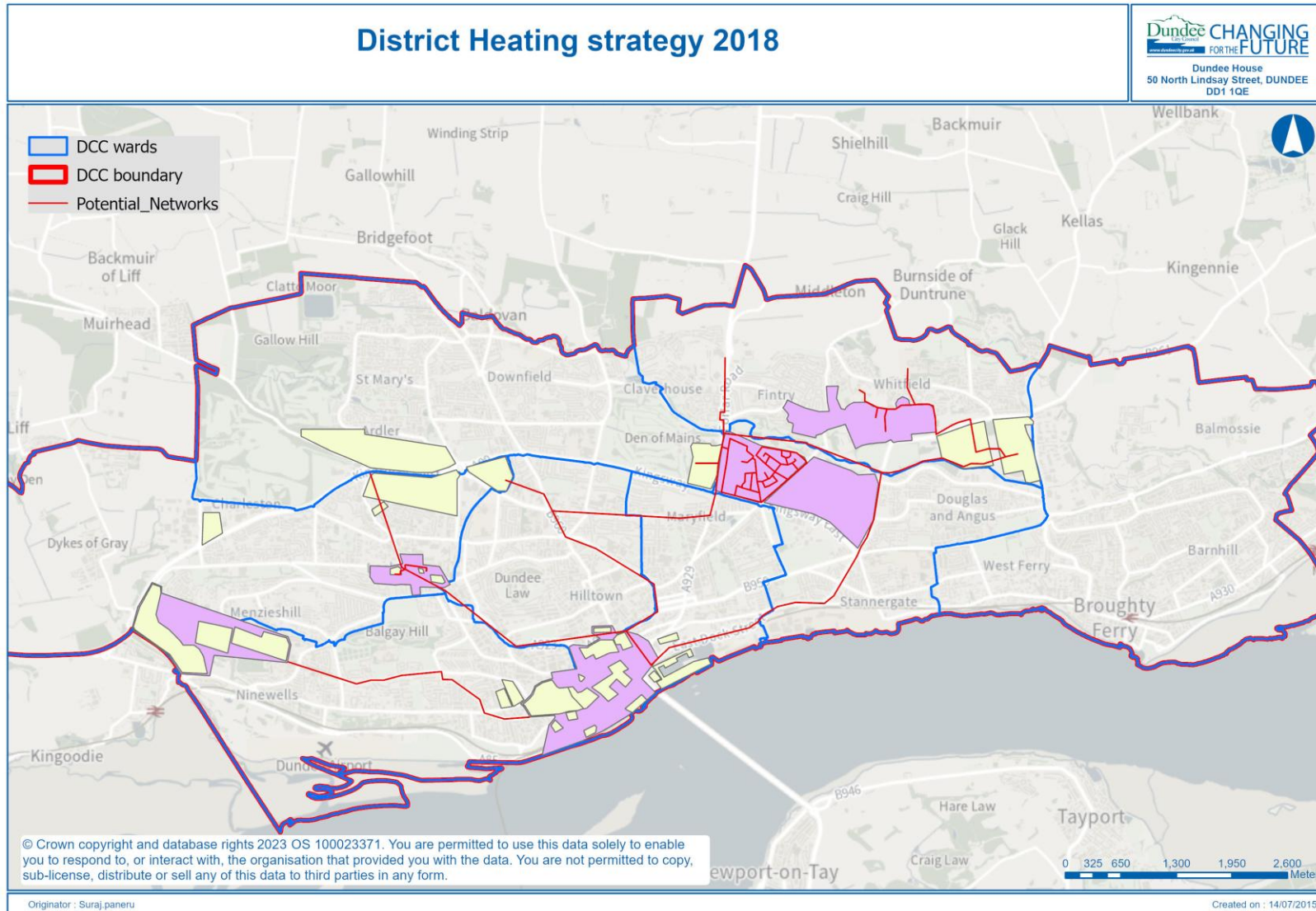
- Surveying 6,000+ properties which have had cavity wall insulation (CWI) 40+ years ago to establish condition
- Working on plans to pilot EnerPHit project at a small number of properties

Council New Build Housing

- Over last 5 years the Council has completed 447 new build dwellings
- Council target going forward for newbuild housing is 200 units p.a. achieved in partnership with local Housing Associations
- Council will adopt Passivhaus principles into new-build design ahead of a Scottish Passivhaus equivalent standard
- Balcairn Place is first scheme to be designed to Passivhaus standard

District Heating

Dundee City Council District Heating Strategy 2018 - 2028



- Dundee City Council published a District Heating Strategy in 2018
- The strategy used the Scotland Heat Map data as a baseline
- Workshops with council departments were used to validate the zoning
- Identified 5 'heat clusters' that represent the areas where the Council or other public sector anchor loads are located and where clusters could initiate

Housing Heat Networks

- Housing currently operates district heating in 10 of its 11 high-rise blocks plus 222 low-rise flats - a total of 1,130 households
- 4 distinct schemes, each with its own purpose-built energy centre that houses gas-boilers, pumps, water treatment equipment
- District heating schemes installed over a 3-year period from 2012, funded through Energy Company Obligation for properties in the lowest 25% of the Scottish Index of Multiple Deprivation
- Gas-fired district heating provides residents with heating and hot water at a lower cost than the storage heating it replaced
- Going forward, consideration will be given to changing low carbon heating technologies to reduce carbon emissions

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Thank You