

# Pieces of the jigsaw: minimum energy performance standards in practice

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ecee summer study  
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The **existing** homes **alliance** | scotland



# Scotland's homes now – key facts

- 2.5 million homes
- 62% owner-occupied, 24% social rented, 14% PRS
- 81% heated with mains gas, 7% other fossil fuels, 11% electric
- 45% EPC C or better, 41% D, 10% E
- 50% of homes are in 'critical disrepair'
- 37% of homes are flats (21% of o/o homes)

# Scotland's homes – strategic targets

- Net zero emissions, including decarbonisation of buildings by 2045 (interim targets 75% by 2030, 90% by 2040)
- All homes to C by 2033
- Fuel poor homes to C by 2030 and B by 2040
- 22% non electric heat from renewables by 2030
- Zero emission heating by 2030 for:
  - Most off-gas fossil fuel heated homes
  - 1m on-gas heated homes

# Scotland's homes – strategic complications

- Scottish Gov Heat in Buildings Strategy, 2021 – sets the scene, but .....
- UK Gov Heat and Buildings Strategy 2021:
  - Homes to EPC C by 2035
  - Consultations and ambitions on phase out of ff boilers and increase in heat pumps
  - Commitment to decisions on rebalancing gas/electric pricing
- UK Internal Markets Act 2020
- UK Withdrawal from the EU Continuity (Scotland ) Act 2021
- Energy Performance of Buildings Directive

# Scotland's homes – future heat vision

## Primary options:

- **Passive house/very energy efficient fabric**, no/minimal space heat demand. Hot water and any residual heat demand from solar and/or renewable electric.
- **Low temperature heat pump**, moderate to high fabric energy efficiency
- **District/communal heating**, renewable sources, moderate to high efficiency fabric.

## Secondary options:

- **High temperature heat pump**, lower efficiency fabric
- **Biomass boiler**, moderate to high efficiency fabric – e.g. rural situations.

.... with PV, solar thermal, heat storage integrated into all options as appropriate

# Key principles for regulation

- **Clear**, as simple as possible, and fair. **Communicated** early.
- **Practical** to monitor & enforce through existing mechanisms where possible.
- Well **timed and staged**:
  - Fabric first as far as possible
  - Early notification of plans for heat networks
- **Enabling framework** to help reach standards before compliance dates.
- Incentives and support to **go further** than the regulated standards.
- **Safeguards** to ensure that fuel poor households do not face higher bills.
- Adequate **resources** for all of the above.

# The metrics – building blocks for regulation

## Energy Performance Certificate improvements

- Full data sets, not reduced
- Fewer assumptions and default values
- Key metric for regulation: Heat demand indicator (kWh/m<sup>2</sup>/yr)
- Energy Use and Carbon Emission indicators: all home energy use (approx.)

## Building Regulations

- Clear guidance and max U values for conversions, extensions, major renovations
- Guidance on max U values for minor works – steps to target

# Proposals for regulatory framework

## **Fabric standard:**

- Low temp heat ready
- From 2025 triggered by sale, major renov., extension, conversion
- All homes to be compliant by 2030

## **Fossil fuel boiler phase-out:**

- No new or replacement from 2025 (off-gas), 2030 (on gas)
- Full phase out thro restricting sale/purchase fossil fuel - 2045
- Phase out of mains gas grid

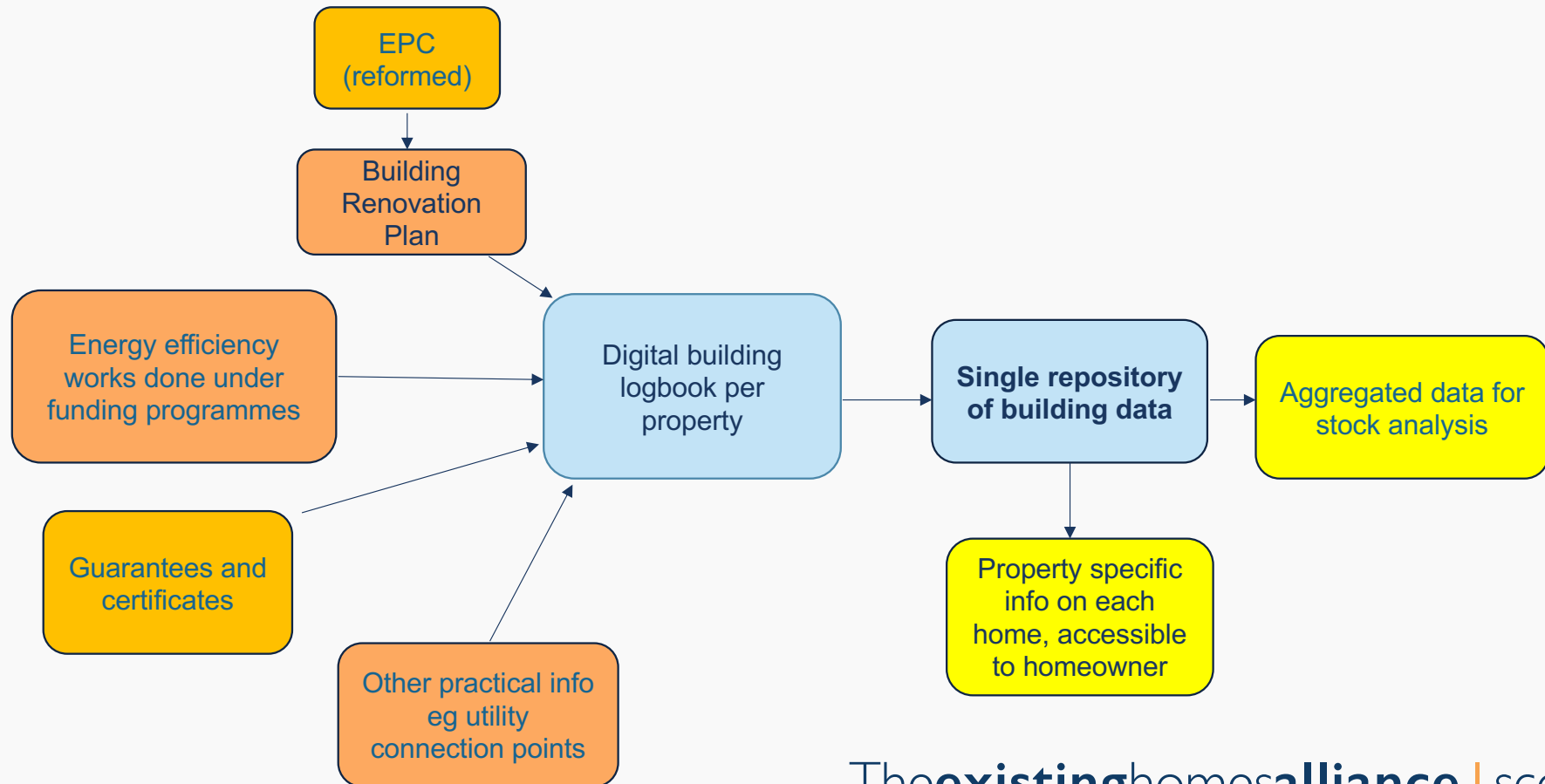
Enforce through conveyancing, building regulations control, EPC register



# Regulating for energy efficient homes: enabling framework

- **Advice and info:** how to, when, who, access to finance
- **One stop shops:** support through process
- **Quality Assurance framework**, and help through it for SMEs
- **Guidance for historic buildings**
- Guidance / structures for **multi tenure buildings**
- **Building renovation plan**, including reformed EPC
- **Digital building logbooks** – single version, not multiple options

# Integrated data management and accessibility



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