



AND **Locate25** | **G**
THE NATIONAL GEOSPATIAL CONFERENCE

Presented at the FIG Working Week 2025,
6-10 April 2025 in Brisbane, Australia
FIG **Geospatial**
Council of Australia

Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Australia 6-10 April

Cleantech homes, sustainability and residential property valuation (249)

Nigel Sellars FRICS
April 2025



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Who is RICS?

RICS is the world's leading professional body for qualifications and standards in land, real estate, infrastructure and construction, promoting and enforcing excellence, worldwide.

It is a role we have been doing since 1868.

Setting global standards



RICS supports governments, business and the public by helping to set **global standards** for the built environment sector, and **training, qualifying and regulating** professionals to **deliver** those standards to the world.

Background - What is a Cleantech home?

WHAT IS A CLEANTECH HOME?

Cleantech homes have **electric heating systems**, like heat pumps. They are **not connected to the gas grid** and **do not use any other fossil fuel** for heating. They can also go further than just electric heating, for example with an **electric vehicle charger** or **solar panels** and **batteries**. These homes are 'net-zero ready' - as they only have electric appliances, the energy they use will be carbon-free once the National Grid achieves its 100% clean electricity target.

- HEAT PUMP**
Electric heat pumps generate heat and hot water from electricity and are highly efficient compared to conventional gas boilers.
- NO GAS CONNECTION**
Connects to a rapidly decarbonising National Grid, or a decarbonised local electric microgrid network.
- FABRIC ENERGY EFFICIENCY**
High performance glazing, insulation and airtightness minimise heat loss and use far less energy for heating and cooling.
- HEAT RECOVERY**
Recovers heat from stale air and transfers it back as fresh, warm air, improving air quality and reducing wasted heat.
- SOLAR PANELS**
Generate clean renewable energy to help reduce energy bills and carbon emissions.
- BATTERY STORAGE**
Increases the efficiency of the PV array, offers energy cost savings and a backup power source, and reduces the burden on our grid infrastructure.
- ELECTRIC VEHICLES**
May increase power demand at home, but smart tariffs will enable EV owners to charge their vehicles cheaply overnight.
- SMART HOME HUB**
Allows smart-enabled low carbon technologies to be run most efficiently to respond to price signals.

Sustainable Markets Initiative

POLICY LANDSCAPE

UK POLICY (BY COUNTRY)

- SCOTLAND**
Introduced ban on direct-emission heating systems in new homes and buildings (New Build Heat Standard, April 2024)
- ENGLAND**
Effectively mandated the end of gas boilers in new homes from 2024 onwards (The Future Homes Standard)
- WALES**
Banned gas boilers in new social homes in 2021. Currently consulting on whether to extend this to private developments from 2025.
- NORTHERN IRELAND**
No timeline set for phasing out gas boilers in new homes.

CURRENT AND PROJECTED RATE OF NEW HOUSES AND FLATS BUILT WITH HEAT PUMPS

If implemented, the FHS estimates 50% of homes will be cleantech by 2027, 85% by 2028, and 100% by 2029.

16% in 2024
10% in 2023

Over one-third of new homes built today have some form of electric heating.

11,000 people qualified as heat pump installers in the last TWO YEARS

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THE BENEFITS

CLEANTECH HOMES can potentially **reduce energy bills** by **40-100%** compared to homes with gas heating*

| Category | Current Cost (£/year) | Projected Cost (£/year) |
|-----------------|-----------------------|-------------------------|
| Electricity | £1,750 | £1,370 |
| Gas | £5,980 | £1,410 |
| Heat Pump | £1,410 | £1,410 |
| Solar Panels | £0 | £1,210 |
| Battery Storage | £0 | £1,210 |
| EV Charger | £0 | £1,210 |
| Smart Home Hub | £0 | £1,210 |

*Based on a typical 3-bedroom house with a gas boiler and a heat pump. Costs are based on current market prices and are subject to change. Source: Batings Partners.

CONSUMER PERCEPTION

OVER 80% OF PEOPLE who recently switched to a heat pump stated that they were satisfied or more than satisfied with their new heating system.

91% of people we surveyed reported being **more satisfied** with their heating system vs. 74%.

90% of both heat pump and boiler users stated their heating systems did a good job of maintaining desired temperature levels during winter.

THE COMMERCIAL CASE

Love-Carbon Technologies **DO** cost more to install, but these costs amount to **LESS THAN 2%** of the new home's sale price.

Over the next 10 years, heat pump costs are expected to **REDUCE BY 30%**, while solar PV costs will **REDUCE BY 40%**.

LENDERS are increasingly incentivising investment in CLEANTECH HOMES.

- It helps them meet their **NET ZERO COMMITMENTS**
- LOWER ENERGY BILLS** free up disposable income for borrowers
- CLEANTECH HOMES** are more likely to hold value in the long term because they are **NET-ZERO READY** and do not need retrofitting to meet future emissions standards.

'SOLAR PANELS' is now in the **top 100** most-searched keywords on Rightmove, while **'HEAT PUMPS'** has also surged to the **top 200** in 2024.

A RESILIENT INVESTMENT

Emerging evidence suggests that **LOW-CARBON TECHNOLOGIES** can **add value** to the average home.

| Technology | Value Add (%) |
|--------------|---------------|
| HEAT PUMP | +1.7 - 3% |
| SOLAR PANELS | +0.5 - 2% |
| EV CHARGER | +2 - 2.75% |
| ZERO BILLS** | +16% |

**Zero bills homes save money that would otherwise be spent on energy bills. Source: Batings Partners.

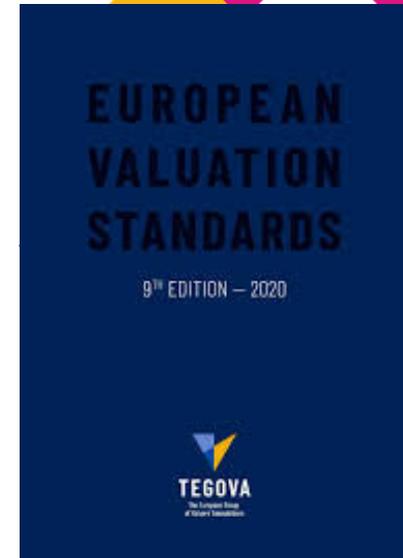
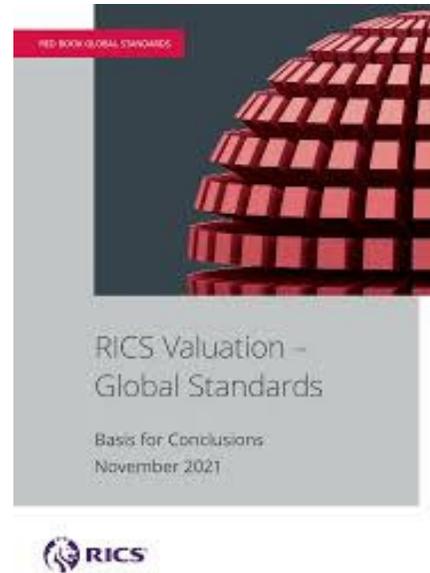
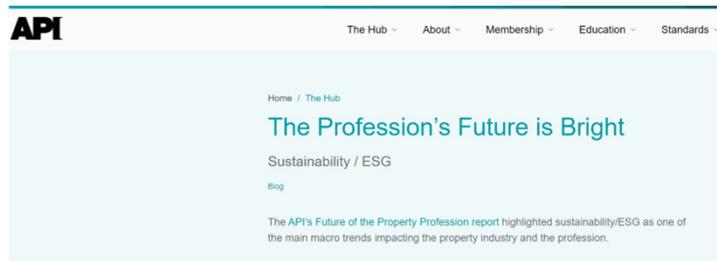
READ THE FULL REPORT

Cleantech Homes: Lower Bills, Healthier Living (2024)

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Existing Related Valuation Standards

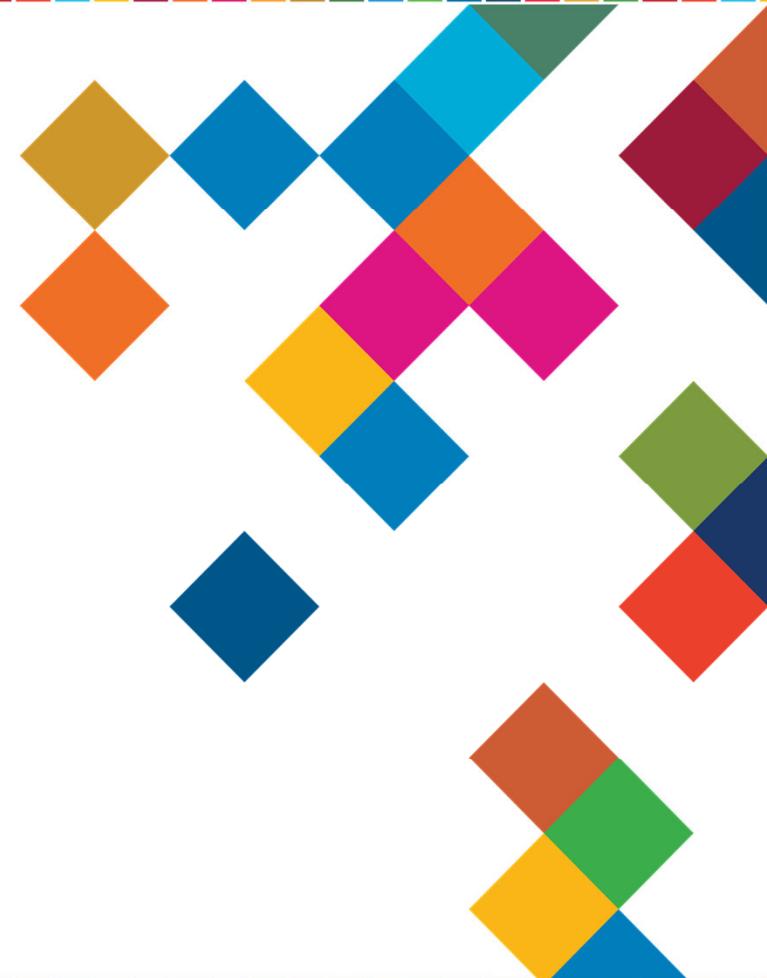
IVSC



Current evidence of value premium for Cleantech homes – Green premium?



Data limitations



The role of the valuer and reflecting sustainability characteristics in the valuation process



Conclusions





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The most relevant SDGs related to the presentation and theme of this session

1st relevant SDG

7 AFFORDABLE AND CLEAN ENERGY



2nd relevant SDG

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



3rd relevant SDG

11 SUSTAINABLE CITIES AND COMMUNITIES



SUSTAINABLE DEVELOPMENT GOALS

International Federation of Surveyors supports the Sustainable Development Goals



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|---------------------------------------|-----------------------------------------------------|---------------------------------------------------------|-----------------------------------|-----------------------------------|--------------------------------------------|---------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------|
| <p>1 NO POVERTY</p> | <p>2 ZERO HUNGER</p> | <p>3 GOOD HEALTH AND WELL-BEING</p> | <p>4 QUALITY EDUCATION</p> | <p>5 GENDER EQUALITY</p> | <p>6 CLEAN WATER AND SANITATION</p> | <p>7 AFFORDABLE AND CLEAN ENERGY</p> | <p>8 DECENT WORK AND ECONOMIC GROWTH</p> | <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p> |
| <p>10 REDUCED INEQUALITIES</p> | <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p> | <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p> | <p>13 CLIMATE ACTION</p> | <p>14 LIFE BELOW WATER</p> | <p>15 LIFE ON LAND</p> | <p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p> | <p>17 PARTNERSHIPS FOR THE GOALS</p> | |

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