Career paths to install heat pumps

Green Heat Installer Engagement Programme







Presenters

Pilar Rodriguez	Green Heat Installer Engagement Programme	Presenter, Q&A Panel				
	Manager, Energy Saving Trust					
John Renwick	Sector Manager –	Presenter, Q&A Panel				
	Construction, Energy Skills					
	Partnership (ESP)					
Sam Thomson	Curriculum Manager, SQA	Presenter, Q&A Panel				
	Senior Verifier - Building					
	Services Engineering, Glasgow					
	Kelvin College					
Steven Morrison	Learning and Skills Manager,	Presenter, Q&A Panel				
	West Lothian College					

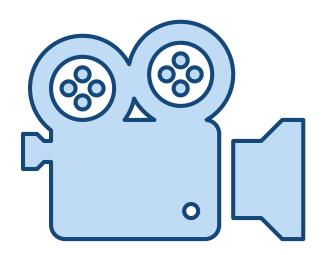
Questions

Type questions into the **Questions** pane of the control panel

You can send in your questions at any time during the presentation. These will be collected and addressed during the Q&A session at the end of the presentations.



Recording



This presentation is being recorded but your name and attendance are hidden from the recording.

The recording will be uploaded and will be made available to watch again.

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Have Your Say



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Please complete this if you can so we can continue to improve the webinars we offer.

The key role of heat pumps in decarbonising Scotland

Pilar Rodriguez Programme Manager, Green Heat Installer Engagement Programme 22 November 2023







Green Heat Installer Engagement Programme



Resources hub

Support hub for small businesses working on energy efficiency, heating systems and micro generation. Find research, case studies and online tools to...



Green heat installer events

We organise networking events, webinars, workshops and information sessions. All free of charge. Find out more about our upcoming sessions.



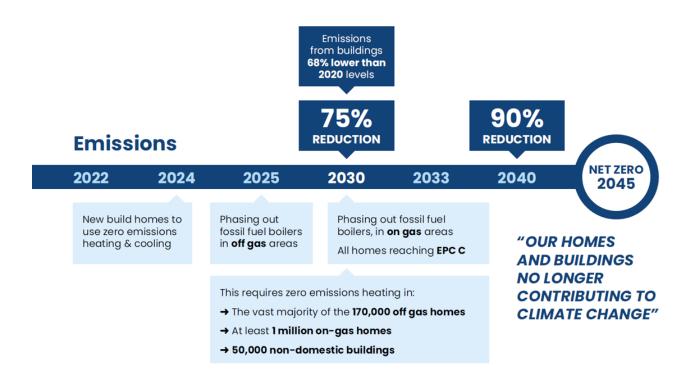
Skills, funding and certification

Discover the certification requirements as an installer or assessor looking to carry out work under various schemes.

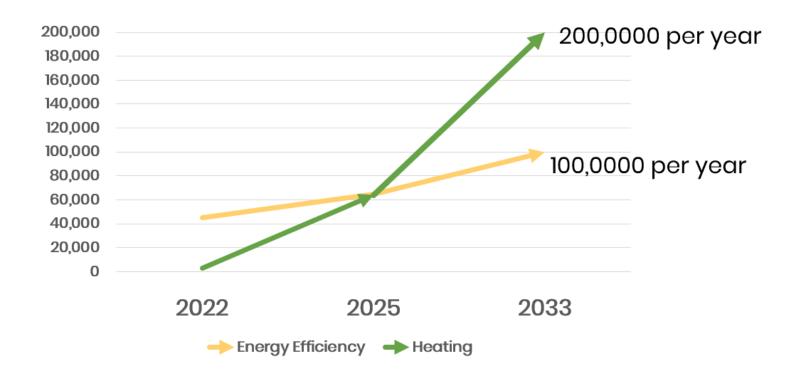


Funding for your customers

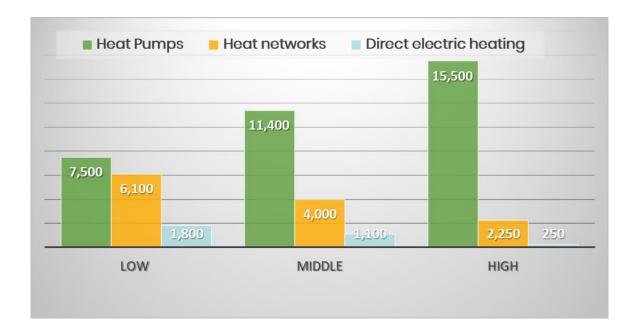
Energy Saving Trust helps consumers access funding to make energy efficiency improvements and renewable energy additions to their property.



Domestic green heat installations



The scale – workforce requirements



www.climatexchange.org.uk/media/5361/cxc-clean-heat-and-energy-efficiency-workforce-assessment-april-2022.pdf

Support and funding for heat pumps in Scotland – domestic and non-domestic

	Grant Funding	Loan Funding	Total Funding
SME Loan Scheme	£10,000	£100,000	£110,000
Home Energy Scotland Grant and Loan schemes	£7,500	£7,500	£15,000
Home Energy Scotland Grant and Loan schemes rural uplift*	£9,000	£7,500	£16,500





^{*}The rural uplift is available to households in eligible rural and island postcodes

Resources

- How to become a heat pump installer in Scotland
- Domestic heat pump best practice guide
- Procurement guide
- Case studies to encourage the industry to upskill
- Recorded webinars

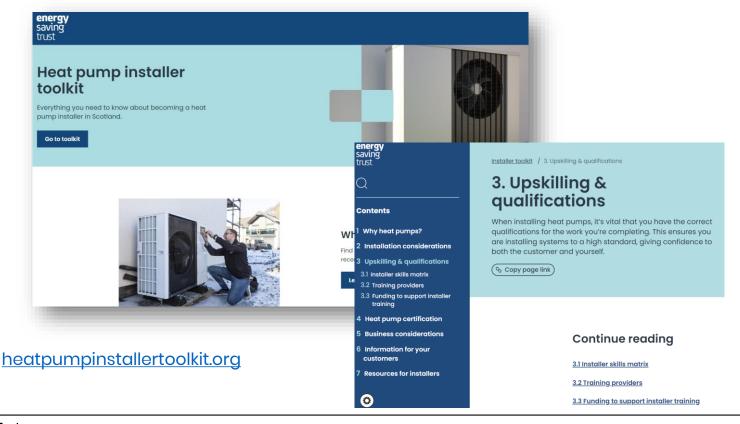


Resources hub



Green heat installer events

Heat Pump Installer Toolkit



Working in partnership







Mobile Heat Pump Training facility







energysavingtrust.org.uk/business/energy-efficiency/green-installer/heat-pump-training

Funding for MCS certification



Scottish Government MCS certification fund for heat pumps:

- For heating engineers with an interest in installing heat pumps (either air, ground or water source)
- The grant pays 75%, up to a maximum of £1,000, of the certification fees
- Until the end of March 2024 or until funds run out.

energysavingtrust.org.uk/grants-and-loans/mcs-certification-fund

The Renewables Installer Finder

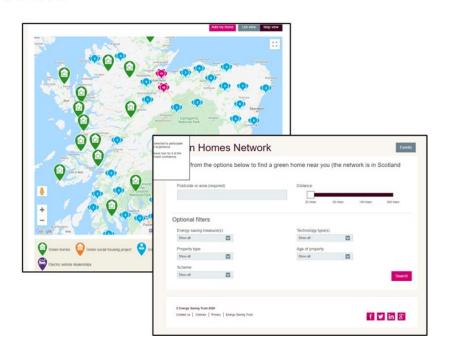
- Free to join for MCS installers operating in Scotland
- Customer reviews of installed systems
- More than 600 reviews last year
- Customers can search by name, location and technology
- Register using MCS email address and password
- Direct links to profile page



rif.est.org.uk/Installer/Registration

Green Homes Network

- Database of customer case studies to showcase work done.
- Customers can read about people who have done work that they are considering
- In some <u>cases</u> we can arrange email/phone calls/visits



energysavingtrust.org.uk/tool/green-homes-network/

Green Heat Installer Engagement Programme – useful links



Email: GreenInstallerScotland@est.org.uk



LinkedIn Group: www.linkedin.com/groups/5139242



Email updates and quarterly newsletter subscription: bit.ly/2PSatkL



Website: energysavingtrust.org.uk/business/energy-efficiency/green-installer



Thank you









Skills Webinar Heat Pumps

22nd Nov 2023

John Renwick Sector Manager Construction ESP



About us

WHO ARE WE?

ESP is the college sector agency in Scotland for the energy, engineering and construction sectors. Whilst also being the college sector lead for STEM and the college sector agency leading on the Climate Emergency Skills Action Plan.

OUR VISION

A college sector working in partnership with Government, agencies and industry to meet national and regional skills needs, maximising investment and job opportunities aligned with emerging technologies, the **Climate Emergency** and the **Just Transition to Net Zero**.

Scotland's colleges – delivering skills for the energy, engineering and construction sectors

Our Colleges



Scotland's 24 colleges operate in 13 regions across the country, allowing them to plan locally, regionally, and nationally for the benefit of individuals, communities, the economy, and wider society.

*includes Newbattle Abbey College and Sabhal Mòr Ostaig which sit outwith regiona arrangements.

SRUC is a higher education institution which delivers further education provision.

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Region	College					
Aberdeen and Aberdeenshire	1. North East Scotland College					
Ayrshire	2. Ayrshire College					
Borders	3. Borders College					
Dumfries and Galloway	4. Dumfries & Galloway College					
Edinburgh and Lothians	5. Edinburgh College					
Fife	6. Fife College					
Forth Valley	7. Forth Valley College					
	8. City of Glasgow College					
Glasgow	9. Glasgow Clyde College					
	10. Glasgow Kelvin College					
	11. UHI Argyll					
	12. UHI Inverness					
	13. UHI Moray					
Highlands and Islands	14. UHI North, West and Hebrides					
	15. UHI Orkney					
	16. UHI Perth					
	17. UHI Shetland					
Lanarkshire	18. New College Lanarkshire					
LandrkSinre	19. South Lanarkshire College					
Tayside	20. Dundee & Angus College					
West	21. West College Scotland					
West Lothian	22. West Lothian College					
	23. Newbattle Abbey College					
Sit outwith regional arrangements	24. Sabhal Mòr Ostaig					
	25. Scotland's Rural College (SRUC)					







Scotland's Colleges

Energy Efficiency &
Low Carbon Heat
Training Facilities



Under Development		Αν	Bc	<u>Dum</u> :	Edir		Forth	Glasg	Glasgo	띨	ı			New C	South L	Dundee	West	West
Updated: Nov 2023	<u>NESCol</u>	Ayrshire College	Borders College	<u>Dumfries & Galloway</u> <u>College</u>	Edinburgh College	<u>Fife College</u>	Forth Valley College	Glasgow Clyde College	Glasgow Kelvin College	UHI Outer Hebrides	<u>UHI Inverness</u>	UHI Moray	UHI Perth	New College Lanarkshire	South Lanarkshire College	& Angus College	West College Scotland	West Lothian College
Energy Efficiency Measures for Older and Traditional Buildings								- 11							11	H_{ν}		✓
Air Tightness			1			✓									✓	//		✓
Thermal Imaging			✓			✓	1	1	111					7//			5×	✓
SMART Control systems			✓			✓	✓	1									1	
Internal Wall Insulation					1										1	✓		✓
External Wall Insulation					1										1	✓	1	1
Battery Storage		1	1	1	1		✓	1									1	
Ground Source Heat Pumps	1	1	1	1	1	1	1	1	1		1		1		1	✓	1	✓
Air Source Heat Pumps	1	✓	1	1	1	1	1	1	1		1	1	1		1	✓	1	✓
Mobile Heat Pump Training Centre			1	1	1						1				1	1	1	1
Solar Thermal	1	1	1	1	1	✓	1	1	1				1		1	1	1	✓
Solar Photovoltaic			1	✓	1		1	1			1				1		1	✓
Rainwater Harvesting					1		1	✓										
Mechanical Ventilation Heat Recovery			✓		✓			✓		///					✓			
Grey Water System				1/	1	4//	✓											
Electric Boiler		4//			1/		✓											
Electric Vehicle Charging Points	///		1	1		✓		✓		✓	✓					✓	✓	✓
Solid Biomass	//	1/1/	//	✓			1/2	1./.							✓			
Smart Metering	11	11	11	1	//	✓		/						✓	✓			
Retrofit Coordination & Risk Management	//	11	✓	1		///	//											
Energy Assessment	11	11	1/1			//	fi .											

Scotland's colleges – delivering skills for the energy, engineering and construction sectors





Route to become a Heat Pump Installer

Recommended Minimum



Installers MUST Have an SVQ or Equivalent in

Plumbing, Refrigeration, Ventilation or Gas Engineers

Bolt on

Heat Pump Qual Water Byelaws Regs

Unvented Hot Water Storage

Domestic Vented

AND (only if working on pre-1919 buildings)

Level 3 Award in Energy Efficiency Measures for Older and Traditional Buildings Competent and Qualified Heat Pump Installer

Skillsets & Qualifications







Supply Chain Skills Pipeline

(Competent Low Carbon Heat Installers)

- **Upskilling/Re-skilling**
- **New Apprentices**
 - Young
 - Adult



80,000-100,000 heat pumps installed cumulatively



2030

- 2026
- Phasing out fossil fuel boilers in off gas areas
- 20,000+ new build properties are fitted with heat pumps

170,000 Installs Per Year





NET ZERO 2045

- Phasing out fossil fuel boilers, in on gas areas
- All homes reaching **EPC** band C



2020





Develop a 3/5 year skills need analysis using recommended minimum skillsets and qualifications installers skills matrix

"Green Heat Supply Chain"

Engage with your regional college's Business Development Advisor (BDA)

- Develop a workforce planning model
 - a. Upskilling
 - b. New Entrants
- 2. Identify funding streams

Competent and qualified installer

"Net Zero Delivery"

and assessment

4

Transitioning at Pace

Quality Assurance





GREEN HEAT INSTALLER VAN LIVERY





Available to all Scottish Colleges Sep 2023





Transitioning at Pace

Mobile Heat Pump Training & Assessment Centre Delivery Partners



Industry up-skilling/re-skilling



Sector awareness



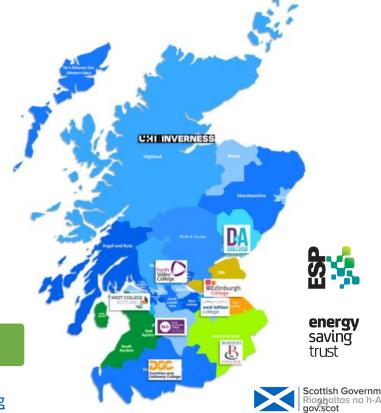
Community projects



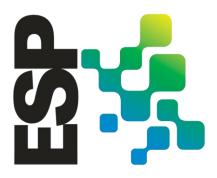
Schools / STEM projects



Events



<u>Further Information – Mobile HP Training</u>





John Renwick Sector Manager – Construction









Samuel Thomson – Curriculum Manager, Glasgow Kelvin

Steven Morrison – Learning & Skills Manager, West Lothian College









Fabric first approach

- Are Heat pumps suitable for all Buildings?
- Fabric 1st approach
- Ensuring the building is free from defects
- Ensuring the building can maintain as much heat as possible





Benefits of Heat Pumps

- Heat Pumps are more environmentally friendly than direct emissions appliances.
 Replacing direct emissions appliances with Heat Pumps will reduce Carbon Dioxide emissions and help prevent climate change.
- A Heat Pump System designed with a Co-Efficient of Performance of 4.5 would result in lower energy running costs (1kW/Hr of electrical energy produces 4.5 kW of Heat Output).
- The principles of heat are consistent with accurate system design. Data measurement of Heat Pump operation informs the consumer of the benefits of this system, an accurately designed system will inevitably lower energy running costs.
- Heat Pump systems can be integrated with Solar Photovoltaic systems for generating electricity. This would offset running costs further.





Heat Pump Industry pre-requisites

- The Installers Skills Matrix identifies how to access a Heat Pump Systems course in Scotland.
- Pre-requisite qualifications in either SVQ Level 3 Plumbing, Heating and Ventilation, and Refrigeration and Air Conditioning are required along with a Water Byelaws/Regulations qualification.
- Further information can be found on the Energy Savings Trust website.



west lothian college

Delivery Model

- West Lothian College main target audience is to upskill industry in Heat pumps and will be delivered on campus with short course
- Glasgow Kelvin College Glasgow Kelvin College is currently delivering Heat Pump Systems to Modern Apprentices in our SVQ Level 3 BSE courses. There will be events during the session to upskill industry operatives who meet eligibility requirements. All Heat Pump Systems activity takes place at our Springburn Campus.
- Or can be delivered remotely using the Mobile heat pump assessment centre which we can come to you all over Scotland









Funding opportunities

- West Lothian based companies can access the economic development fund and they can access £5k worth of training
- This is funded by West Lothian Council and accessed via West Lothian College
- Glasgow Kelvin College encourages businesses to check if they meet eligibility criteria for accessing Scottish Enterprise funding to support Heat Pump Installers, this is a pilot initiative.
- Glasgow Kelvin College also recommends that installers access the Energy Savings Trust website for further funding opportunities.





College Contacts

 Steven Morrison – <u>smorrison@west-Lothian.ac.uk</u> for curriculum and for funding Angela Bell – <u>Abell@west-Lothian.ac.uk</u>

• Sam Thomson – <u>samthomson@glasgowkelvin.ac.uk</u> and for Employers/Employees please contact <u>training@glasgowkelvin.ac.uk</u>

Q&A



Panellists:

Pilar Rodriguez	Green Heat Installer Engagement Programme Manager, Energy Saving Trust
John Renwick	Sector Manager – Construction, ESP
Sam Thomson	Curriculum Manager, SQA Senior Verifier - Building Services Engineering, Glasgow Kelvin College
Steven Morrison	Learning and Skills Manager, West Lothian College



• Email: GreenInstallerScotland@est.org.uk

LinkedIn Group:
 https://www.linkedin.com/groups/5139242/

 Email updates and quarterly newsletter subscription:
 bit.ly/2PSatkL

Website:

https://energysavingtrust.org.uk/business/energyefficiency/green-installer/

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