

ISLE OF MAN DOMESTIC HEATING COMPARISON

Prices Collected:

24 January 2022

FUEL TYPE	APPLICATION	COST PER kWh (pence)	COST PER USEFUL kWh (pence)	ASSUMED THERMAL EFFICIENCY OF APPLIANCE
Electricity				
<i>* Daily standing charge (in brackets) applies</i>				
Standard or Prepayment (20.2p)*	Radiator/Electric Fire	19.68	19.68	100%
Comfy Heat (Composite) (20.2p)*	Storage Heater	13.35	13.98	95%
Gas				
<i>* Daily standing charge (in brackets) applies</i>				
All Island Tariff (16.90p)*	Gas Boiler	10.78	11.98	90%
Cylinder Central Heating Gas (19.32)*	Gas Boiler	10.86	12.07	90%
Mini Bulk Gas (17.71)*	Gas Boiler	10.81	12.01	90%
LPG Gas Fire (BK & CB Tariff) (6.02p)*	Gas Fire	15.36	26.95	57%
Natural Gas Fire (NB Tariff) (6.02p)*	Gas Fire	12.33	21.63	57%
Heating Oil (28 Sec)				
900 Litre Quantity	Oil Boiler	6.37	7.08	90%
450 Litre Quantity	Oil Boiler	6.78	7.54	90%
Air Source Heat Pump				
Heat Pump (Composite)	Heat Pump	14.45	3.61	400%
Solid Fuels				
House Coal	Modern Stove	6.71	8.95	75%
Anthracite	Room Heater	6.44	8.59	75%
Taybrite	Multi-Fuel Stove	6.36	7.95	80%
Wood				
Woodchip (Moisture Content < 30%)	Woodchip Boiler	3.67	4.08	90%
Manufactured Heat Logs	Wood Burning Stove	10.45	13.07	80%

Cost Per kWh: Expresses cost in relation to the total energy within a fuel. It is a theoretical comparator which assumes 100% efficiency with no wastage. $\text{Cost Per kWh} = \text{Cost Per Unit Sold [including standing charge where applicable]} / \text{Heat Content (kWh) Per Unit Sold}$.

Cost Per Useful kWh: Expresses cost in relation to the useable energy within a fuel, or in other words the heat energy that is likely to be extracted. It is intended to be a more realistic comparator which takes into account the efficiency of the appliance burning the fuel. $\text{Cost Per Useful kWh} = (\text{Cost Per Unit Sold [including standing charge where applicable]} / \text{Thermal Efficiency of Appliance}) / \text{Heat Content (kWh) Per Unit Sold}$.

Standing Charge: The portion of standing charge included within costs per kWh is based on the average annual usage of each fuel type across the Island.

kWh: The kilowatt-hour is a unit of energy equivalent to one kilowatt (1 kW) of power expended for one hour (1 h) of time.

Heat Content: The kWh of energy contained within a fuel. Heat contents quoted are taken from the 'Sutherland Tables': <http://www.sutherlandtables.co.uk/>

Thermal Efficiency: The percentage of energy contained within a fuel, which the appliance can successfully extract and convert into useful heat. E.g. a 90% efficient boiler will extract 90% of energy within a fuel and convert this into useful heat. The remaining 10% is wasted. Efficiencies of individual appliances may vary substantially from the examples provided. In particular, the 90% efficiency for gas and oil boilers is based on a modern condensing boiler, in conditions where the return temperature is low enough to allow condensing to take place.

ISLE OF MAN DOMESTIC HEATING COMPARISON COST PER UNIT SOLD

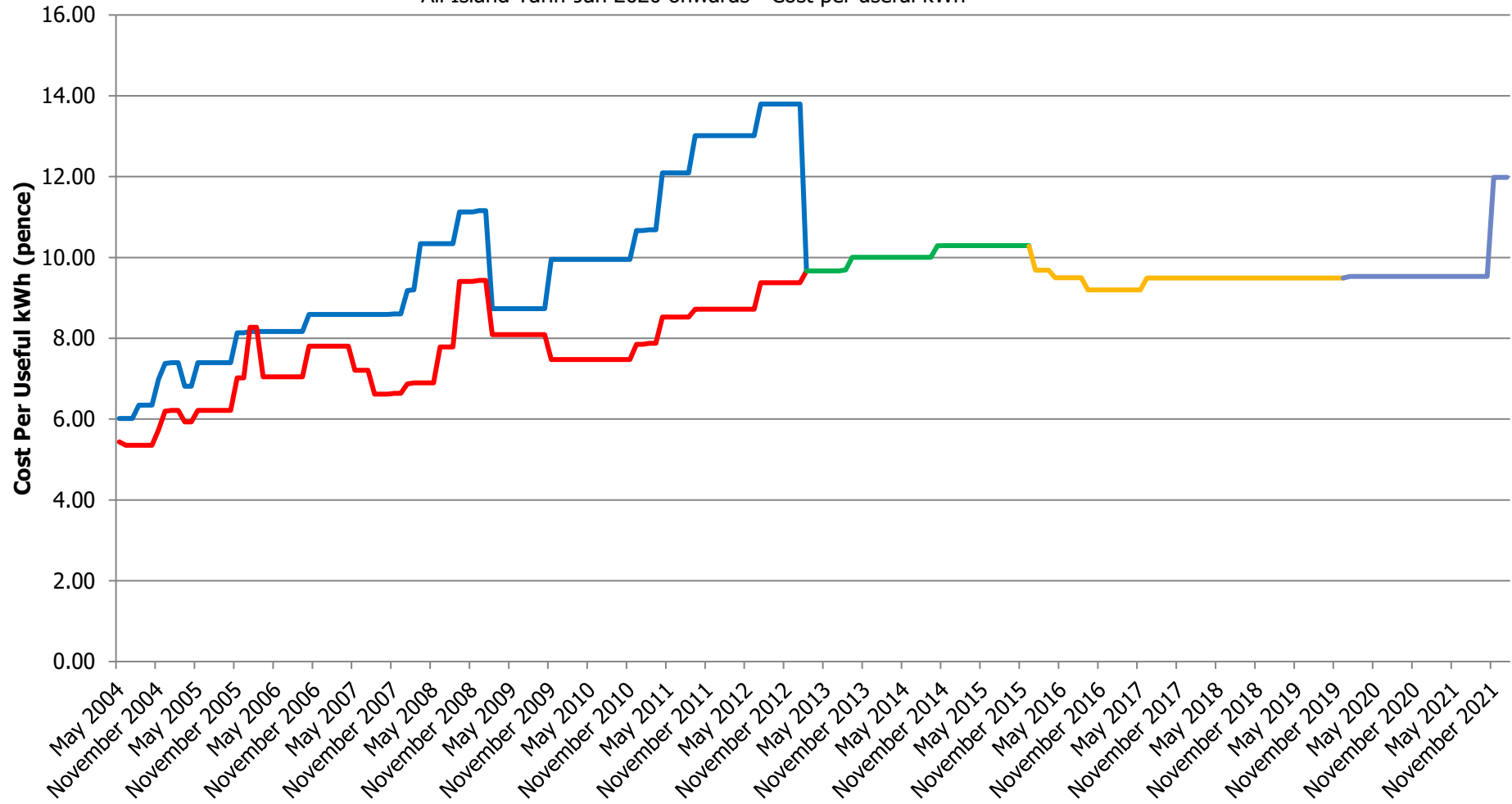
Prices Collected:

24 January 2022

FUEL TYPE	SOLD IN UNITS OF	AVERAGE HEAT CONTENT PER UNIT SOLD (kWh)	ASSUMED THERMAL EFFICIENCY OF APPLIANCE	AVERAGE COST PER UNIT SOLD (PENCE)
Electricity				
<i>* Daily standing charge (in brackets) applies</i>				
Standard or Prepayment (20.2p)*	1 kWh	1	100%	19.68
Comfy Heat (Composite) (20.2p)*	1 kWh	1	95%	13.35
Gas				
<i>* Daily standing charge (in brackets) applies</i>				
All Island Tariff (16.90p)*	1 kWh	1	90%	10.78
Cylinder Central Heating Gas (19.32)*	1 kWh	1	90%	10.86
Mini Bulk Gas (17.71)*	1 kWh	1	90%	10.81
LPG Gas Fire (BK & CB Tariff) (6.02p)*	1 kWh	1	57%	15.36
Natural Gas Fire (NB Tariff) (6.02p)*	1 kWh	1	57%	12.33
Heating Oil (28 Sec)				
900 Litre Quantity	1 Litre	10.18	90%	64.86
450 Litre Quantity	1 Litre	10.18	90%	69.06
Air Source Heat Pump				
Heat Pump (Composite)	1 kWh	1	400%	14.45
Solid Fuels				
House Coal - Modern Stove	50 kg	423.5	75%	2842.00
Anthracite - Room Heater	50 kg	452.3	75%	2915.00
Taybrite - Multi-Fuel Stove	50 kg	460	80%	2926.67
Wood				
Woodchip (Moisture Content < 30%)	1 tonne	3500	90%	12852.00
Heat Logs	10 kg	55	80%	575.00

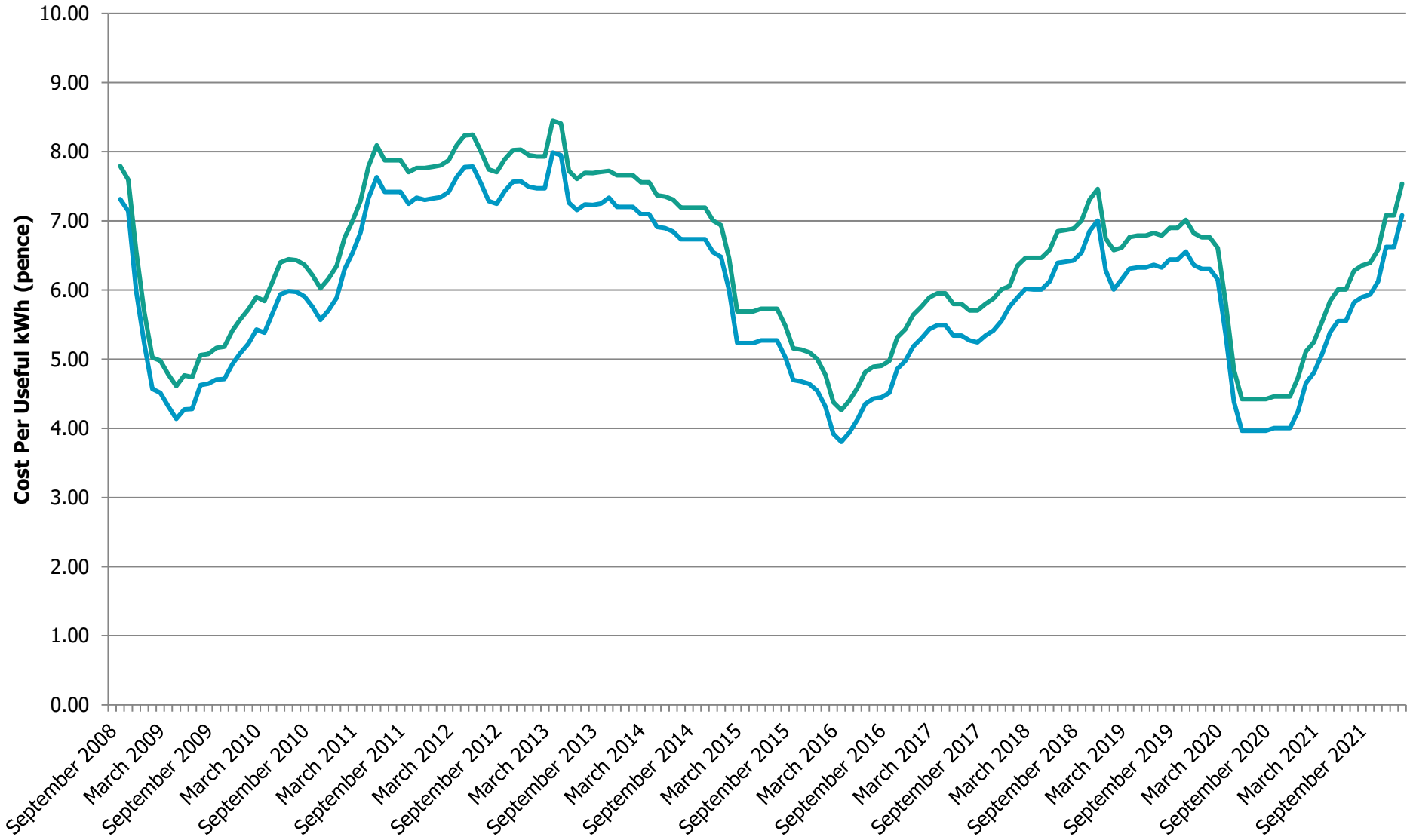
Gas Cost Per Useful kWh

- LPG Towns Gas - cost per useful kWh
- Natural Gas - cost per useful kWh
- All Island up to Jan up to Jan 2016 - cost per useful kWh
- Band C - Cost per useful kWh (mid-point value of 8750kWh) - ceased Jan 2020
- All Island Tariff Jan 2020 onwards - Cost per useful kWh



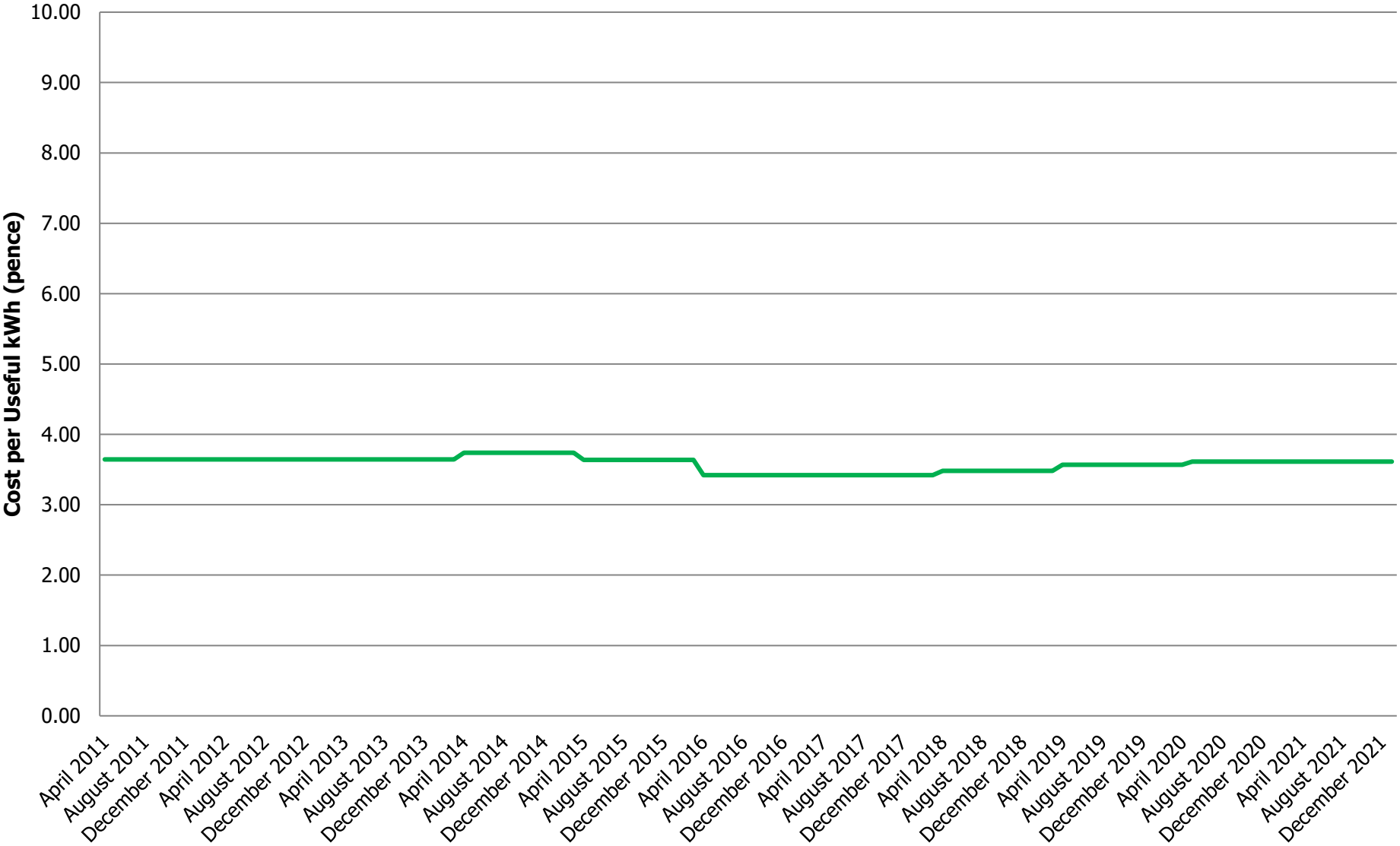
Heating Oil Cost Per Useful kWh

— 900 Litres — 450 Litres

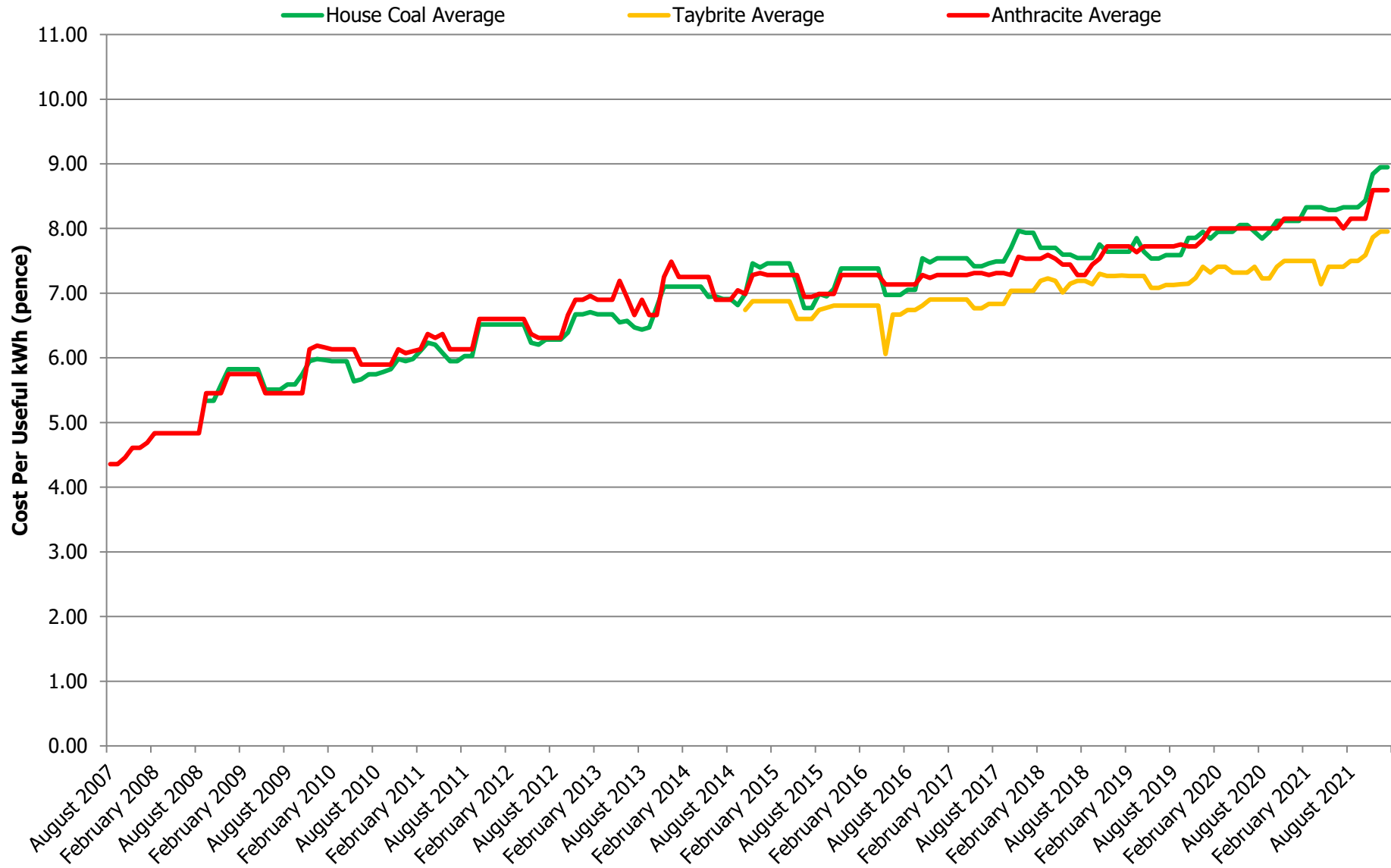


Air Source Heat Pump Cost Per Useful kWh

Heat Pump Composite cost per useful kWh

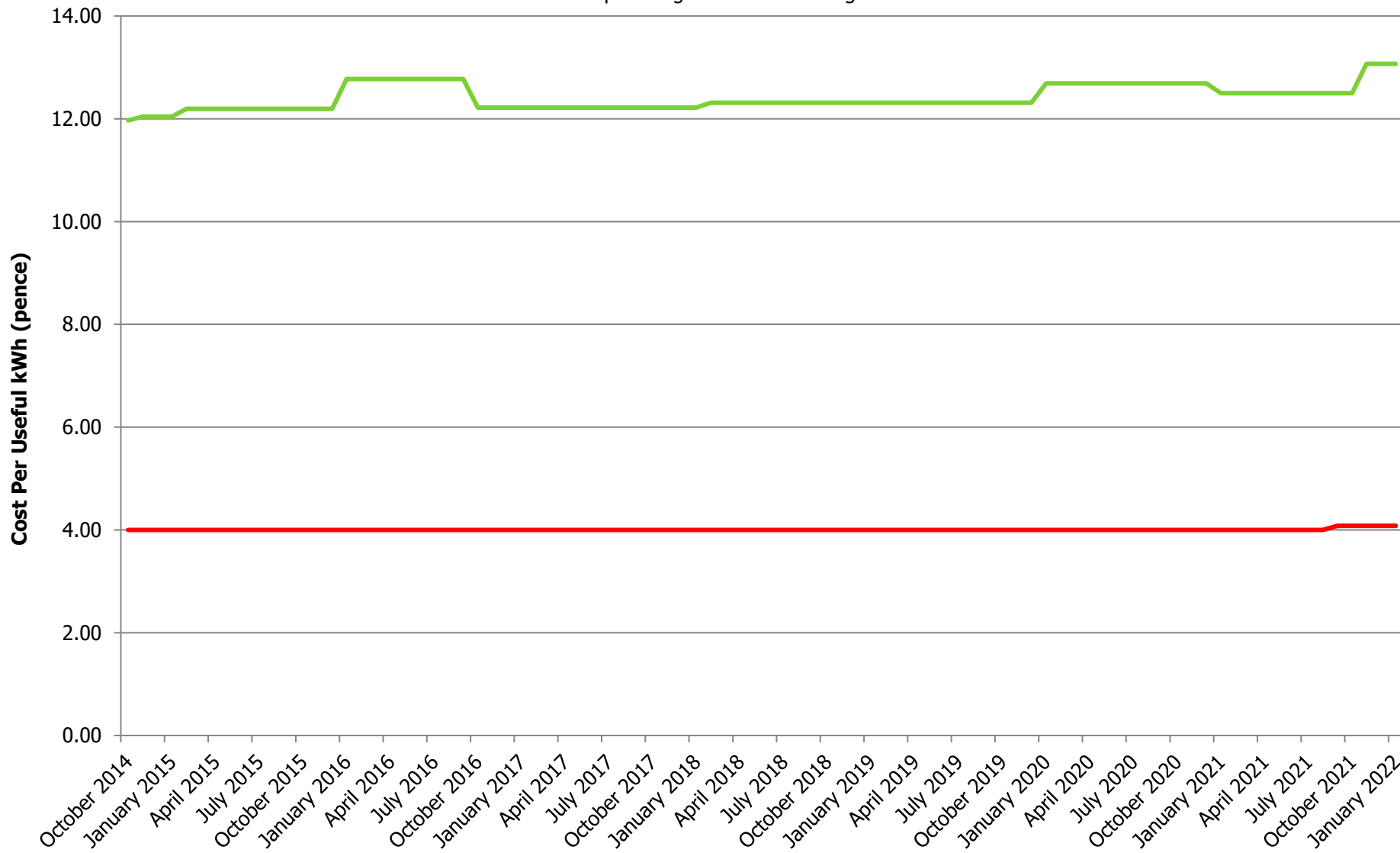


Solid Fuels Cost Per Useful kWh



Wood Cost Per Useful kWh

Woodchip Average Heat Logs kWh



DOMESTIC FUEL NOTES:

General

- 1** The prices and figures provided are based on domestic heating fuel only and includes standing charges. Discounts for bulk purchases (with the exception of oil for bulk purchase), discount for early settlement, maintenance or purchase of appliances, size of properties and the energy efficiency of homes etc, are not taken into account.
- 2** All prices include V.A.T at 5%.
- 3** Standing charges are added to average consumption to generate the costs where standing charges are applicable.
- 4** This information may not be used for advertising purposes without prior agreement from the Isle of Man Office of Fair Trading (OFT).

Gas

- 5** The Star Saver tariff applies to those using gas for central heating. Liquefied Petroleum Gas (LPG) BK and CB tariffs and the Natural Gas NB tariff apply to those using gas only for a gas fire and not as central heating.
- 6** LPG is supplied in the following areas: Foxdale, Laxey, Lonan, Andreas, Santon, St Johns, Jurby and Ballabeg.
- 7** Natural Gas is supplied within the following areas: Douglas, Onchan, Braddan, Glen Vine, Crosby, Union Mills, Ramsey, Port St Mary, Port Erin, Castletown, Ballasalla, Kirk Michael, Peel and Ballaugh.
- 8** Natural Gas Tariffs changed on 1st January 2020 from a banded system to single tariff structure shown as Band A in the Gas graphs.

Electricity

- 9** The Manx Utilities Authority currently offers a "Comfy Heat" tariff, which allows consumers to benefit from a cheaper tariff rate, if consuming electricity in the lower demand (off peak) hours. The thermal efficiency of "comfy heat" electricity is 5% lower than standard, as the tariff is generally used by consumers with storage heaters for hot water. A small amount of useful heat is lost in the storing process and hence the lower efficiency rating. This also has the benefit of reducing the overall cost of electricity of a household as any electricity used will be included on the comfy heat tariff.

Air Source Heat Pumps

- 10** Air source heat pumps extract heat from the outside air, which can then be used to heat properties. Heat pumps require electricity to work, but they are very efficient (400%). For every 1 kWh of electricity used, 4 kWh's are produced to heat the home.
- 11** The calculation for Air Source Heat Pumps changed in May 2020 to more accurately represent the efficiency of modern pumps and the standing charge was removed. These changes have been back dated but subsequent published reports will show the previous data.

Solid Fuel - Coal, Taybrite, Anthracite & Phurnacite

12 Taybrite, Anthracite and Phurnacite are solid smokeless fuels which are used for heating.

Biomass - Wood Fuel

13 Prices are only collected for manufactured wood products, as the heat content is relatively consistent for these products.

14 Prices are collected for heat logs sold in 10kg and 20kg. The weights, heat contents and prices are simple averages of the price for 10kg.

Additional

15 The OFT has altered the way cost per useful kWh is calculated for electricity comfy heat, heat pumps and all forms of gas. Up to January 2019, the efficiency percentage of the boiler was applied to the whole charge for both forms of fuel; going forward this will only be applied to the usage charge and not the standing charge. A further change was made as of April 2019 which removed the electricity standing charge from the heat pump calculations.

16 The graphs shown in this publication have been revised in order to show the new calculation method. Previous versions of this publication (showing the earlier calculation methods) are available upon request.

CONTACT DETAILS

Data is obtained directly from suppliers on the date of publication. Please contact suppliers directly to obtain current prices. The following suppliers are thanked for providing information contained within this publication:

Castletown Fuels
CPL
Department of Environment, Food & Agriculture (DEFA)
Ellan Vannin Fuels
Fairy Cottage Filling Station
Farmers' Combine
Manx Gas
Manx Petroleums
Manx Utilities Authority

This list does not represent an exhaustive list of all local suppliers.

OFT Debt Counselling / Money Management Service	http://www.gov.im/oft/money/
Energy Saving Tips From Members of the Community	https://www.gov.im/brightideas/
Interactive Advice on Building Control Regulations	http://www.myhouse.im/
Advice Regarding Renewable Energy	http://www.energysavingtrust.org.uk/renewableselector/sta
Advice Regarding Installation of Wood Burning Stoves	http://www.gov.im/categories/home-and-neighbourhood/emergency-services/fire-and-rescue-
Advice on woodfuel supplies and matching requirements	https://www.forestresearch.gov.uk/tools-and-resources/biomass-energy-resources/fuel/woodfuel-
Advice on sustainability of biomass fuel	https://www.forestresearch.gov.uk/tools-and-resources/biomass-energy-resources/technical-and-
Identifying a Specific Boiler's Efficiency Rating	http://www.ncm-pcdb.org.uk/sap/pcdbsearch.jsp?pid=26
UK Government Publication Regarding Average Domestic Heating Consumption December 2018	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770773/Energy_Trends_December_2018.pdf

Please Contact the Competition & Markets Section of the Office of Fair Trading with any queries regarding this publication.

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