Outer Hebrides

Household Renewables Survey : Results

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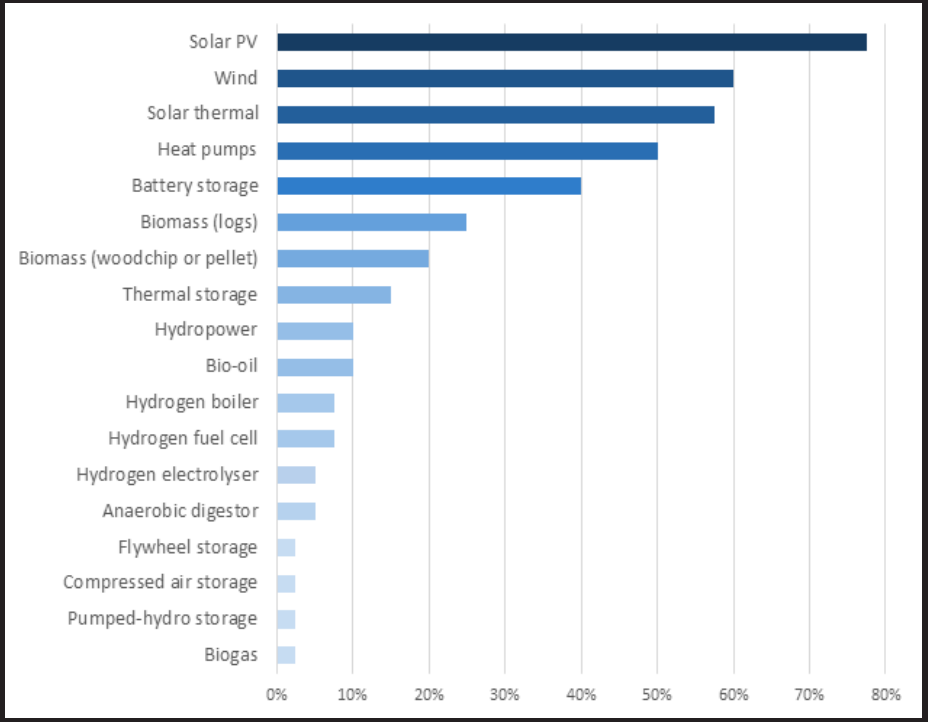
Responsible energy transition

Outer Hebrides survey analysis

Household survey

A total of 117 responses were received from householders residing on Scottish Islands. Though not all identified their location, 40 specified a location in the Outer Hebrides. The islands resident survey was targeted at various online social media groups related to island communities. The online survey remained open for 10 days during June/July 2023. The results for these n=40 respondents from the Hebrides are presented below:

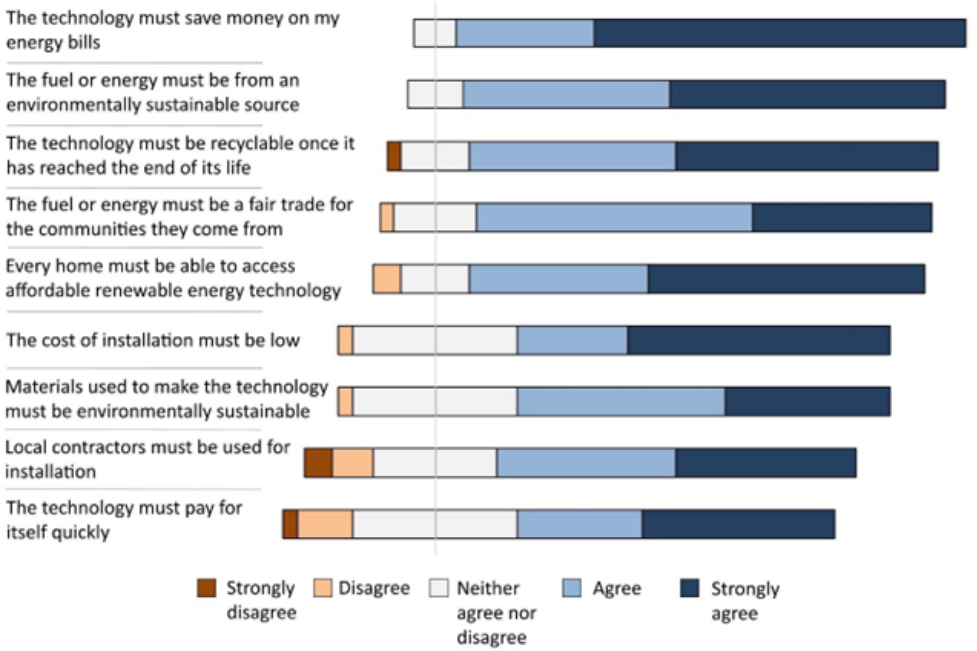
Q1. Which of the following renewable energy options would you consider for your own home?



Comments :

+ In the Outer Hebrides, solar PV was the most popular choice identified by residents.
+ Wind, solar thermal, and heat pumps were also popular.
+ Heat pump popularity was lower (4th) in the Outer Hebrides compared to all regions (2nd), but would still be considered by half of respondents.

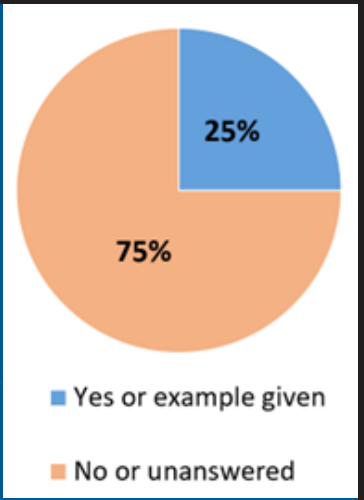
Q2. If you were to consider renewable energy technologies for your home, how important are the following?



Comments:

+ 37/40 respondents agreed that technological solutions should save money on energy bills, with most indicating they 'strongly agree'.
+ But, surprisingly, installation costs (27/40) and payback time (23/40) appeared to be less important in the Outer Hebrides.
+ Issues of sustainability, recyclability, and social fairness were also deemed important by more than 80% of respondents.

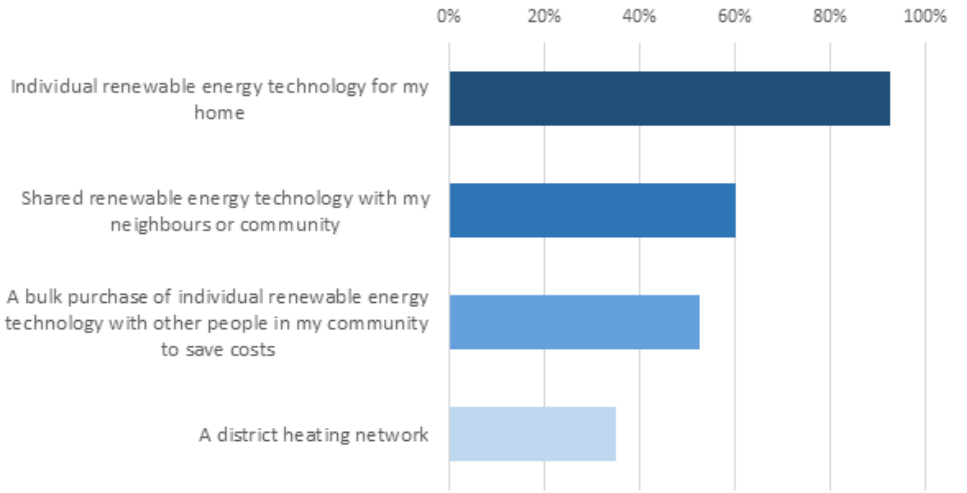
Q3. Are you aware of any funding or incentives available for home renewable energy?



Selected responses:

+ "Yes, Home Energy Scotland"
+ "Only through home energy Scotland"
+ "Grant/Loan - Home energy Scotland"
+ "Normally a scottish government grant"
+ "none that don't require quite a large capital outlay first"
+ "Yes but we are only eligible for an interest free loan"
+ "Energy trust. Tighten inner gall"
+ "RHI, FIT"
+ "last time I checked we weren't eligible due to council tax banding"
+ "Some funding available for eg heat pump installation, but well short of installation costs"
+ "Not for me, but parents recently had air pump heating/water installed with a grant"
+ "I haven't looked into these as we could probably do this without funding, but various other barriers are in the way."

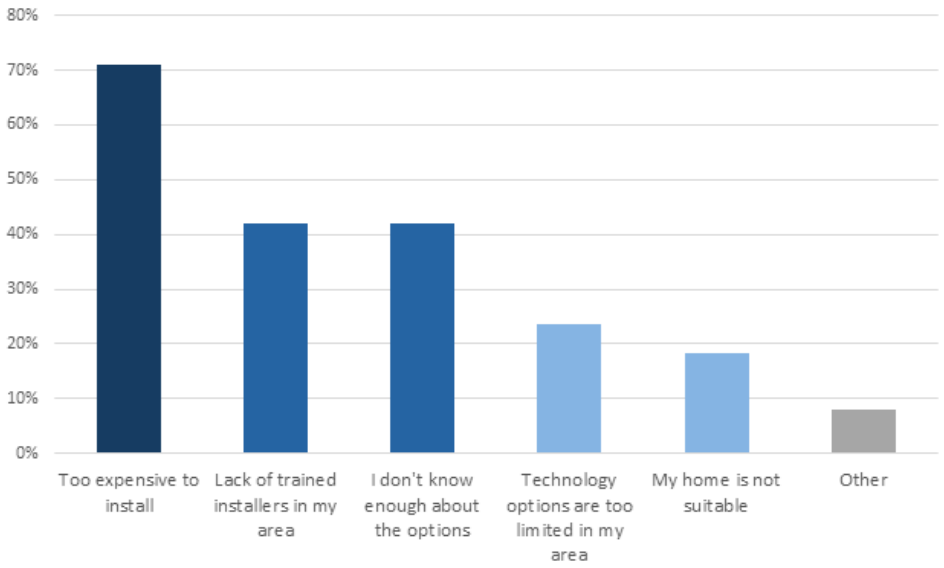
Q4. Would you be interested in the following?



Comments:

+ Most respondents would be interested in individual home renewable technologies for themselves.
+ More than 50% would be interested in sharing a technology with neighbours, and also in group purchases of individual technologies to save costs.
+ District heating schemes were less popular.

Q5. If you are interested in renewable energy technology for your home, what is stopping you? (tick all that apply)

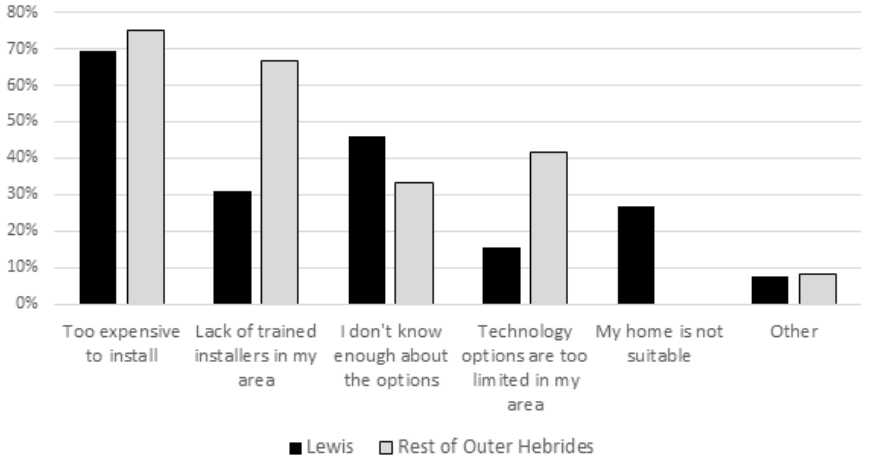


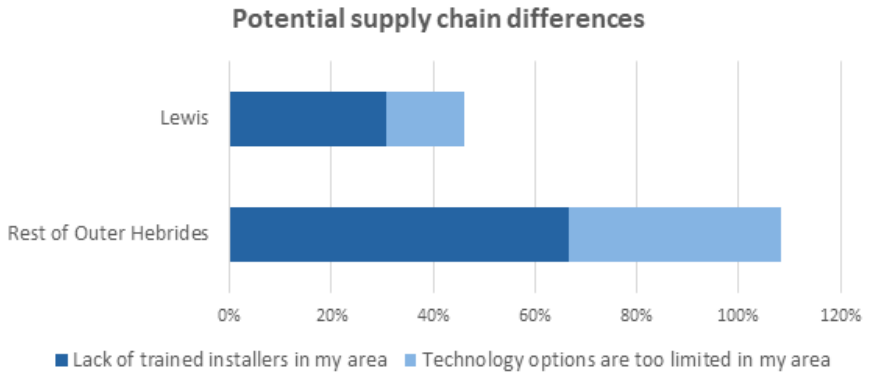
Additional responses:

+ "We want to install a 6kW domestic wind turbine, but are already at the generating capacity for our property... That means we'd need to install battery storage or find another way to handle the surplus power, which makes the installation cost higher than the return and technically more difficult."
+ "I don't own my home. I'd be more interested if I owned my home, but I'm unwilling to invest in a property that I rent."
+ Expense was the main barrier for respondents.
+ Lack of installers, and lack of information were also noted as important barriers.

(Q5 Regional difference between Lewis (N=26) and Rest of Outer Hebrides (N=12)

There were some notable differences between those identifying as being from Lewis, and those identifying other locations in the Outer Hebrides (e.g. Harris, Uist, Barra etc).





Comments:

+ Supply chain issues, such as installers and technology options, were seen as much more of a barrier for respondents outside of the Isle of Lewis.
+ This may reflect a concentration of MCS certified installers in or around Stornoway (representing 5 of 6 shown in the Outer Hebrides on the MCS website).
+ Respondents in Lewis were more likely to see housing suitability as a barrier.

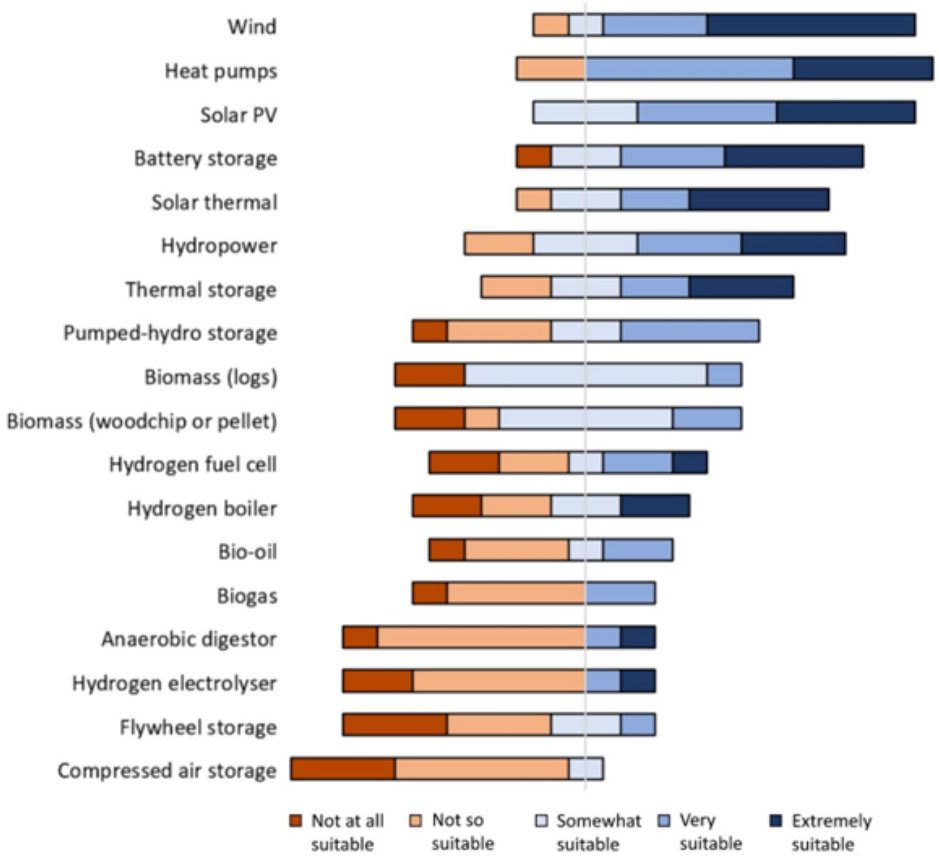
Q6. Any further comments

+ "Information on grants for renewable energy would be beneficial issued to each household in Island and clear costs as I'm not on benefits so probably would end up paying for it myself or can I get assistance???"
+ "I already have ground source heating and think my next best move is actually further improving insulation, prior to adding to renewable generation."
+ "We have just finished our new build and have installed solar PVs and a Sunamp battery. Would be interested in further renewables BUT needs to be cost effective AND finding installers on the islands is an absolute nightmare! Also air sourced heat pumps don't last due to the salty air."
+ "Pretty much every house in [island] should have a domestic wind turbine, as production at the point of use is going to be one of the most effective ways of reducing central demand. But a tiny fraction do - I don't think that's primarily due to a lack of support or funding and definitely not from a lack of wind! It's structural barriers and a failure of government to make the process straightforward and viable. There should be huge incentives and proactive support for this sort of thing from national and local government. Thanks for doing this research - it's really important and I hope it goes well. Tapadh leibh"
+ "We have a turbine. Once sold it, maintenance agents disappear and don't want to know, it's incredibly expensive once it goes wrong which it does frequently and there is virtually no help. It is noisy in high winds , but over all a good buy, but so wish I knew more before purchase.. no help anywhere when things go wrong."
+ "Many adverts I respond to for PV and Storage have no agents covering the Western Isles. Why is ac battery storage not plug and play? there's no MCS accreditation requirement, so why can't any local electrician fit it? Bring back Feed-in-tariff that guaranteed an income for 20 years - so you could borrow easily"
+ "I already have Air source heating, but would like solar to offset high winter electricity costs."
+ "I would also be interested in renewables as regards my business property, but I am not sure what is available to it."
+ "I have asked a local builders if they would fit GB-sol solar pv tiles for us, but it doesn't seem likely. They were top rated by the Ethical Consumer magazine, and are manufactured in the UK. We don't want Chinese manufactured pv, as there are human rights issues plus environmental worries. We have worries about storage batteries for the same reasons."
+ "Were grants, interest free loans available I would consider; otherwise installation is too expensive."
+ "There are plans for a massive marine wind array off the west coast of Lewis. enough power for 750k homes. And yet, we pay the highest energy charg Europe. The rush to hand our resources to big companies is purely extrac and we should be utterly focused on local supply first, before exporting energy off island."
+ "Landlords should be under obligation to support or renewable energy requests from tenants and justify why they are not doing it to an ombudsman"
+ "Have solar pv installed, enquired regarding a heat pump. Retrofitting to an older house was going to require complete renewal of central heating pipework and radiators, plus various alterations and were quoted in region of £25k. Far too much to justify in terms of reduced bills"
+ "Local installers charge far more than mainland contractors and if there is a grant involved the price goes up by the cost of the grant!"

Stakeholder Survey

A survey was targeted at individuals/groups on and/or serving islands considered to have a stakeholding in the home renewable energy transition. These included energy organisations, community development groups, private installers/contractors, housing associations, and local authorities. The online survey remained open for 15 days during June/July 2023. Approximately 220 emails were dispatched, with a total of 45 responses. 13 respondents specifically identified themselves as being located in the Outer Hebrides, with combined experience in all of the above. The results of these n=13 respondents follow:

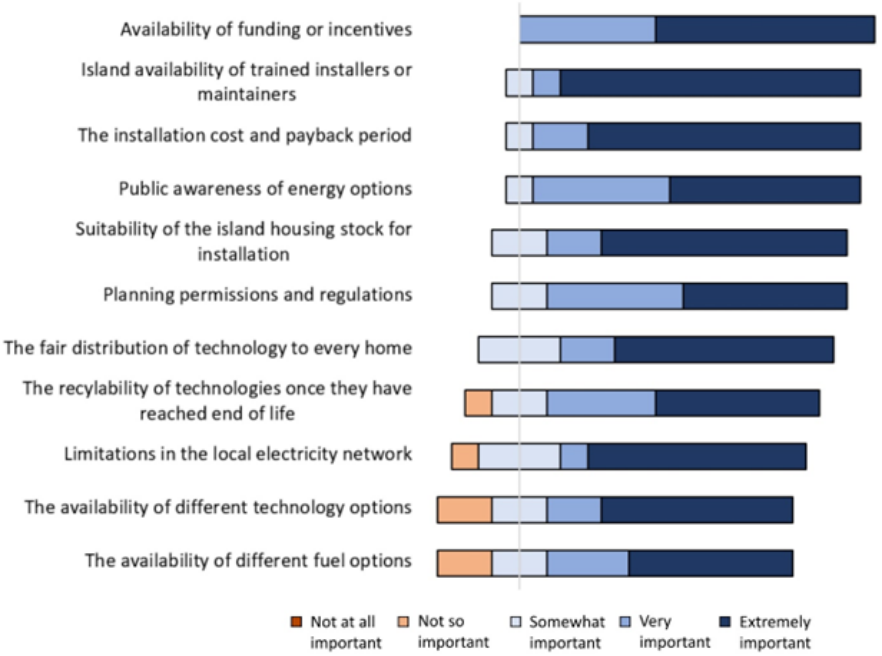
Q1. How suitable are the following renewable energy technologies for a Scottish island home? (you do not have to tick if n/a)



Comments:

+ Wind was deemed 'extremely suitable' by most of those who answered (6/11).
+ Heat pumps were deemed at least 'very suitable' by more respondents than any other technology (10/12).
+ Solar PV was seen as at least 'somewhat suitable' by all who answered (11/11).

Q3. For renewable energy use in Scottish island homes in 2023, how important are the following considerations?



Comments:

+ All considerations were deemed at least 'very important' by most respondents.
+ Island availability of installers was deemed 'extremely important' by nearly all (11/13).

Q3a. Any other important considerations?

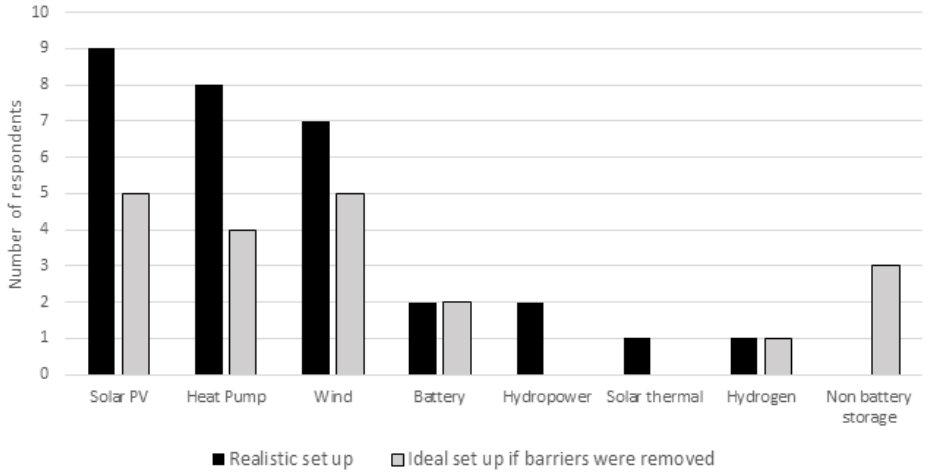
Comments:

+ "Legislation may nullify many of your considerations, SAP calculations on new properties could be reduced so that renewable technology has to be incorporated or perhaps link Council Tax to potential, not actual, banding on EPCs"
+ "Funding mechanisms for maintenance once installed"
+ "Electric vehicles as battery storage, grid stabilisation."
+ "Suitability of stipulations attached to grant funding"

Q2 & Q4 (realistic and ideal set ups)

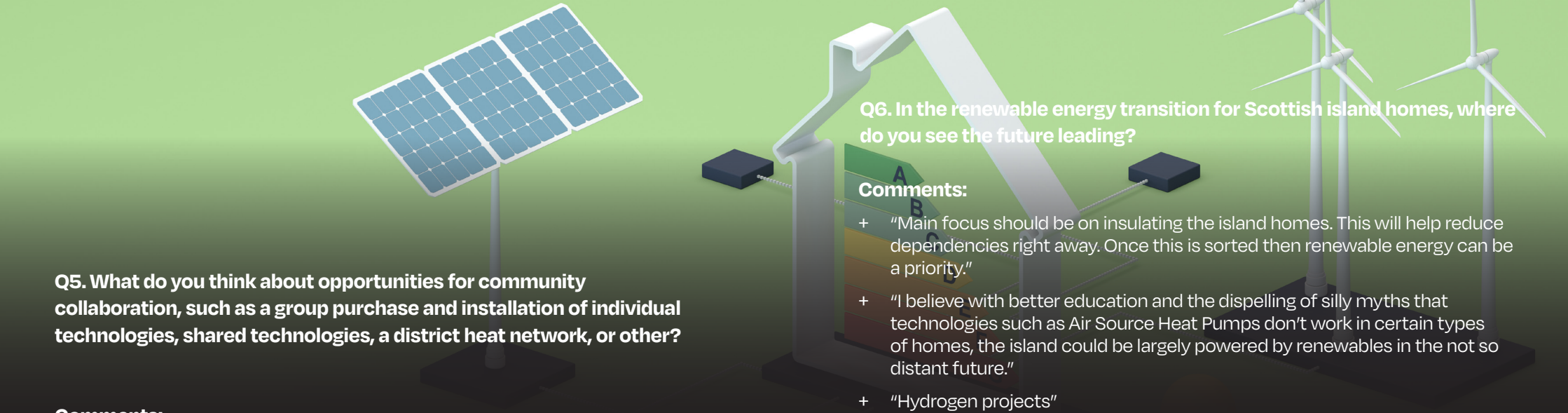
Q2. Considering any combination of technologies, what do you think is the most realistic set up for renewable energy in an island home in 2023?

Q4. If any of the barriers could be overcome, what would be your ideal set up for renewable technology in a Scottish island home?



Comments:

+ Solar PV, heat pumps, and wind, featured in most responses for realistic set up.
+ But, once given the opportunity to reflect on barriers (see Q4 above), these technologies featured less in responses for ideal set ups.



Q5. What do you think about opportunities for community collaboration, such as a group purchase and installation of individual technologies, shared technologies, a district heat network, or other?

Comments:

+ "There are opportunities for community development / purchase, this is currently curtailed by the grid limitations."
+ "Imperative for uptake on a wider scale"
+ "Greatest barrier is the need for volunteers to take this forward - most are already stretched and cannot always give the amount of time needed to do the research and submit the required applications"
+ "Due to dispersed settlement patterns heat networks are not feasible outwith larger towns. Shared infrastructure for electrics has to overcome planning and any additional licence condition issues and DNO requirements for excess feed in."
+ "I think in principle these are all very good ideas but more likely to work well within a social housing scenario where one body retains control of all the properties."
+ "Community led installation and maintenance of equipment. Multiple home heat pumps with bore hole technology for heat and hot water storage."
+ "Very challenging because most houses are detached and the area is rather sparsely populated."
+ "Great"
+ "The idea is fine. However funding always seems to be in the short term which seldom leads to successful, replicable projects."
+ "limited but should be actively promoted and encouraged"

Q6. In the renewable energy transition for Scottish island homes, where do you see the future leading?

Comments:

+ "Main focus should be on insulating the island homes. This will help reduce dependencies right away. Once this is sorted then renewable energy can be a priority."
+ "I believe with better education and the dispelling of silly myths that technologies such as Air Source Heat Pumps don't work in certain types of homes, the island could be largely powered by renewables in the not so distant future."
+ "Hydrogen projects"
+ "I would like to see a lot more emphasis on tidal power - it is a guaranteed source that has not been harnessed enough"
+ "Not sure, Ideally sustainable within an Island context but energy transmission legislation would need to change to allow that."
+ "There seems to be an eagerness to promote hydrogen – Stornoway. But outwith the town the technology is much earlier in development"
+ "Electrification. Hydrogen uses a large amount of energy when energy can be generated, stored and used domestically. Domestic wind and PV, for winter and summer energy use (heating in winter, hot water and appliances in summer). Also use of V2G tehcnology in EV's, with excess energy sent out to cars. Could be more multiple occupancy of housing amongst older population i.e. granny flats connected, with shared energy generation and use, plus shared EV's."
+ "Not optimistic, grant schemes carry inappropriate conditional measures and beyond-warranty work on systems is expensive and hard to find trained engineers. E.g Mitsubishi won't entertain a service plan for here."
+ "limited expansion or acceleration of existing provision"
+ "For the Western Isles as a whole the most important factor for me would be that the Grid would come under the control of a Western Isles organisation allowing us to utilise locally produced energy for the islands and exporting any excess, eliminating restrictions on generation capacity. The reluctance of Government to embrace the opportunity to properly invest in renewable technology whether it be wind, wave, solar and hydrogen will just leave us continually lagging behind the curve."

RIPEET – Responsible Energy Transition
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