

ROUTE TO 2030:

Survey Results



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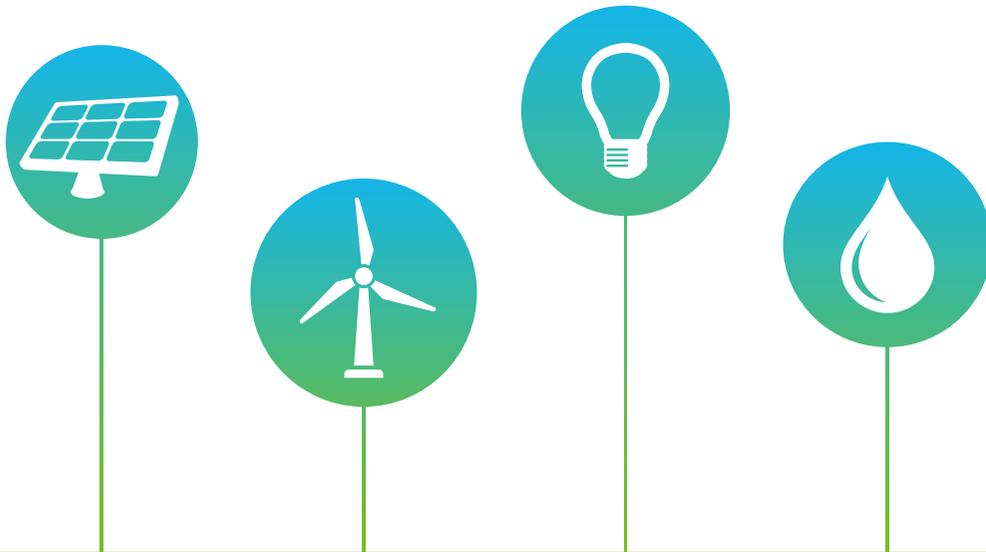
INTRODUCTION

The energy sector is accustomed to change – it has lived with it for the past decade. However, the pace of change is quickening. The levelised costs of renewable energies have fallen dramatically in recent years, and are now affecting the economics of all fuelled technologies, notably gas fired generation.

The past decade has seen a huge deployment of wind and solar, which is now affecting how the National Grid balances supply and demand. Recent years have also seen the demise of coal and the struggle to replace our ageing nuclear power stations. All of which leaves the sector feeling that it is at something of a crossroads.

Most recently, we have seen both Scottish and UK governments publish strategy reviews affecting the sector. The Scottish Government has published a Draft Energy Strategy which sets a target for Scotland to source 50% of all energy from renewables by 2030. The UK Government has published a Green Paper on industrial strategy, which includes energy in its scope.

What better time to test the mood of opinion within the sector? Our survey indulged in some horizon gazing to see how the industry in Scotland believes the sector will evolve.

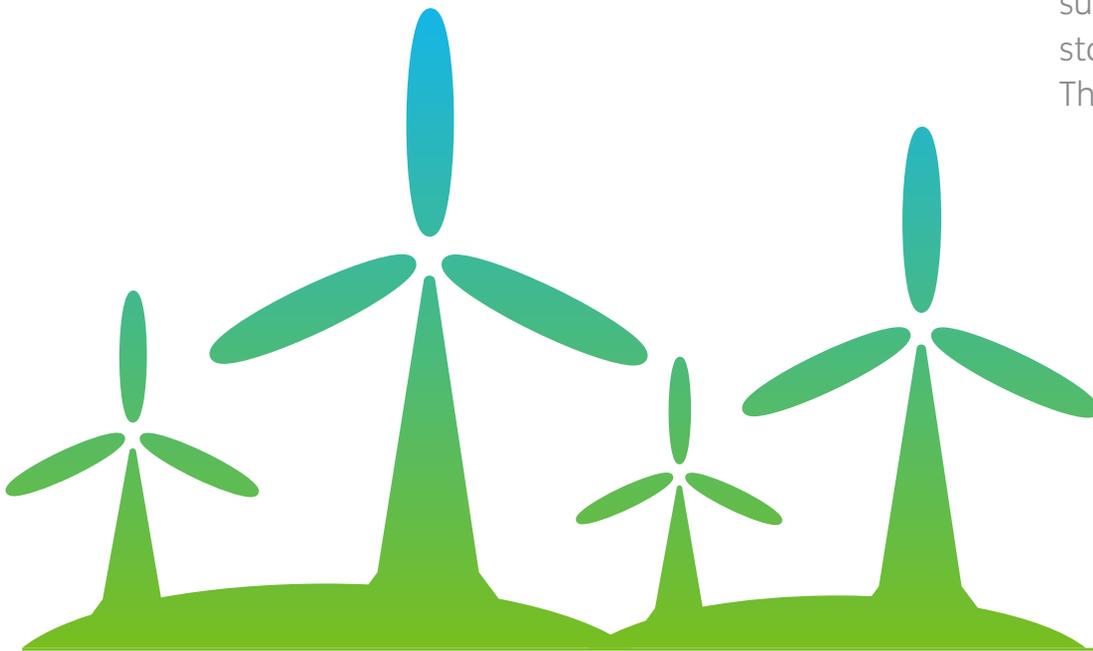


A GLIMPSE INTO THE FUTURE

In its Draft Energy Strategy the Scottish Government sets a 2030 ‘all-energy’ target, moving the agenda on from electricity to the decarbonisation of heat.

In our journey to decarbonise our energy supply, decarbonising heat is the next necessary step since it still accounts for more than 50% of Scotland’s energy supply. However, the Draft Energy Strategy doesn’t set out a definitive vision on how the target will be achieved, which is understandable since many of the policy levers lie in Westminster not Holyrood.

However, from the responses to our survey, we are able to glimpse the future to see how the industry thinks Scotland might meet the target. The majority of respondents believe that the 50% renewables target will be met. At the same time, more than three quarters think that Scotland should balance electricity supply and demand (that is, keep the lights on) by promoting storage technologies. This envisages a future in which Scotland’s electricity supply is met by a combination of renewables and a series of storage technologies. No nuclear, no coal, and little, if any, gas. This would complete the transformation of our electricity system.



A COMING TRANSFORMATION IN HEAT SUPPLY

In contrast to electricity, the past decade has seen little change to our heat supply model. But this is about to change.

At around the same time as it released its Draft Energy Strategy, the Scottish Government set out how it intends to achieve its climate change targets up to 2032 (two years later than the energy strategy). It projects that the service sector (commercial buildings) will source 94% of its heat demand from low carbon sources by 2032 and that the residential sector (domestic housing) will source 80%. This implies a transformation of space heating in Scotland over the next 15 years.

This could be delivered in a number of ways – district heating, the gradual decarbonisation of gas in the gas network through blending biomethane with natural gas in the gas network, converting the gas network from natural gas to hydrogen, the electrification of heat supply, or a combination of these approaches.

The challenge for the Scottish Government is that there is no clear evidence to suggest which of these approaches is likely to be the most cost-effective. The House of Lords Climate Change Committee, in its report published on 17 June 2016, said that “the UK’s electricity and heat may need to be carbon-free by 2050”, if the UK is to meet its 2050 climate change targets.

This is effectively the objective the Scottish Government has set itself for Scotland by 2032, 18 years ahead of the UK as a whole. Scotland will therefore need to be at the vanguard of the decarbonisation of the UK’s heat supply, but it will need to decide upon which of the approaches described above it intends to focus its funding and efforts.

The second challenge is that the Scottish Government does not have the same level of policy control over each of the possible approaches. The only approach over which it does have policy control is district heating. The other possible approaches to decarbonising the heat supply are predominantly governed by UK policy levers. While the Scottish Government may well seek to position Scotland to take advantage of UK policy measures, if it is to make real progress towards its heat targets, its only real choice is to focus (at least initially) on promoting more district heating throughout Scotland.

We asked our respondents to indicate which policy measure they think would help facilitate the creation of new district heating schemes...

RENEWABLES SURVEY RESULTS

How likely do you think it is that the Scottish Government will achieve its 2030 'all-energy' target?

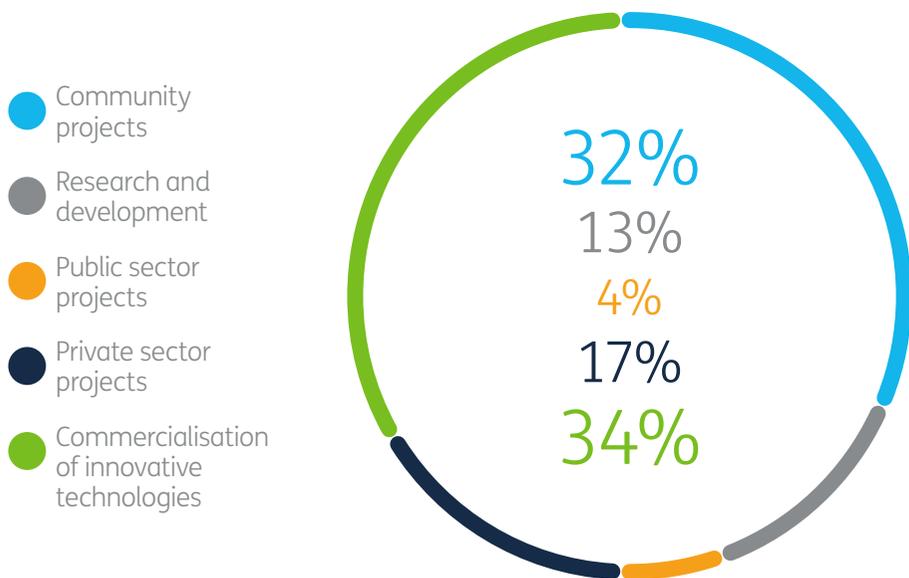


INSIGHT

A clear majority of respondents believe that the Scottish Government will meet its target. The sizeable minority who believe it unlikely demonstrates the level of ambition. It probably also reflects some uncertainty as the Scottish Government is tackling the heat sector for the first time and there is not clear evidence as to how best to achieve the decarbonisation of the heat supply. Nonetheless, nearly two-thirds of respondents believe the target will be met, which is a notable vote of confidence in the Scottish renewables sector.

RENEWABLES SURVEY RESULTS

The Scottish Government has proposed the creation of a Scottish Renewable Energy Bond. What would you like to see this Bond invested in?

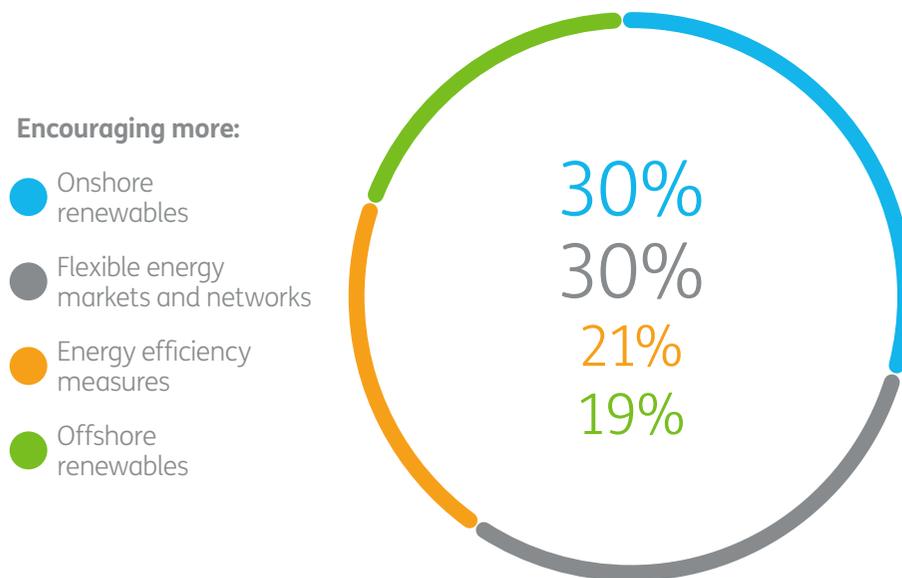


INSIGHT

Commercialisation and community investment correspond to some extent to the Renewable Energy Investment Fund's current remit. REIF currently invests in 'first of a kind' developments, supporting the deployment of new technologies. This result suggests respondents are keen to see this taken further to assist new technologies in developing a pathway to future deployment. Community investment also received considerable support among respondents, which would enable REIF to carry on and expand its great work in this area.

BEIS proposes to consult this year on how best to reduce the cost of meeting the UK's decarbonisation goals in the power and industrial sectors.

Which measure do you think could achieve the greatest savings?

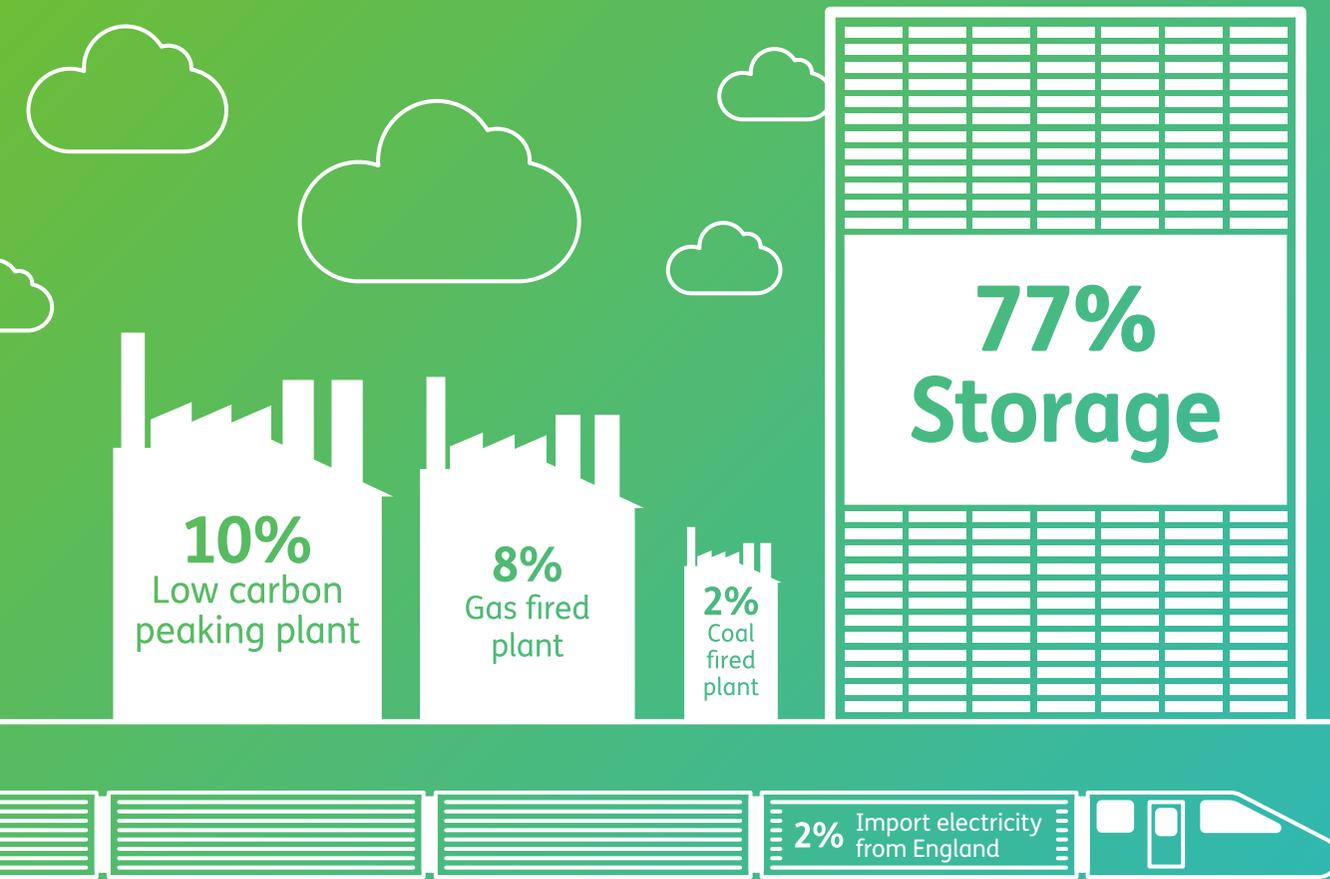


INSIGHT

The wide spectrum of responses suggests that all areas have a part to play in reducing the cost of decarbonisation, which reflects both Scottish and UK policy. However, our respondent group sees a different balance of contribution, with 60% of respondents believing more onshore renewables and network flexibility as the best way to reduce the cost impact of decarbonisation, which contrasts with the UK Government's focus on offshore renewables. It is interesting to note that flexible energy markets lie within the UK Government's control.

RENEWABLES SURVEY RESULTS

In your opinion, which of the following options should Scotland prioritise in order to balance electricity supply and demand in 2030?



INSIGHT

The strong support for storage links to the previous statistic on flexibility (30% state they see this as a key factor in achieving decarbonisation) – storage gives you this flexibility. This demonstrates the need for a supportive policy framework for storage. Storage covers a wide spectrum in the industry, includes battery storage services to ensure grid stability and hydro pumped storage for back up supply.

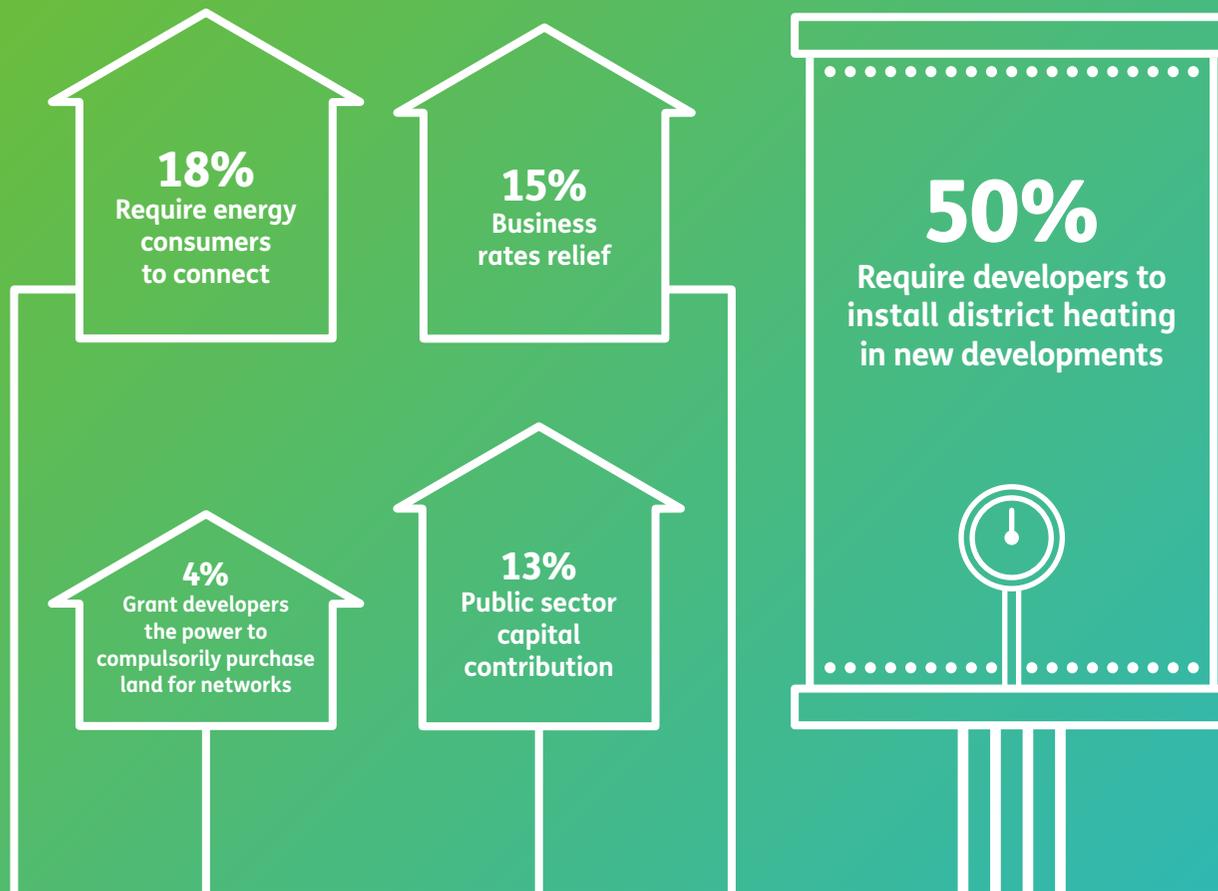


Government support for grid storage technologies to help balance the intermittency of renewable generation would be a useful starting point.



RENEWABLES SURVEY RESULTS

Which single policy measure might facilitate the creation of new district heating schemes?

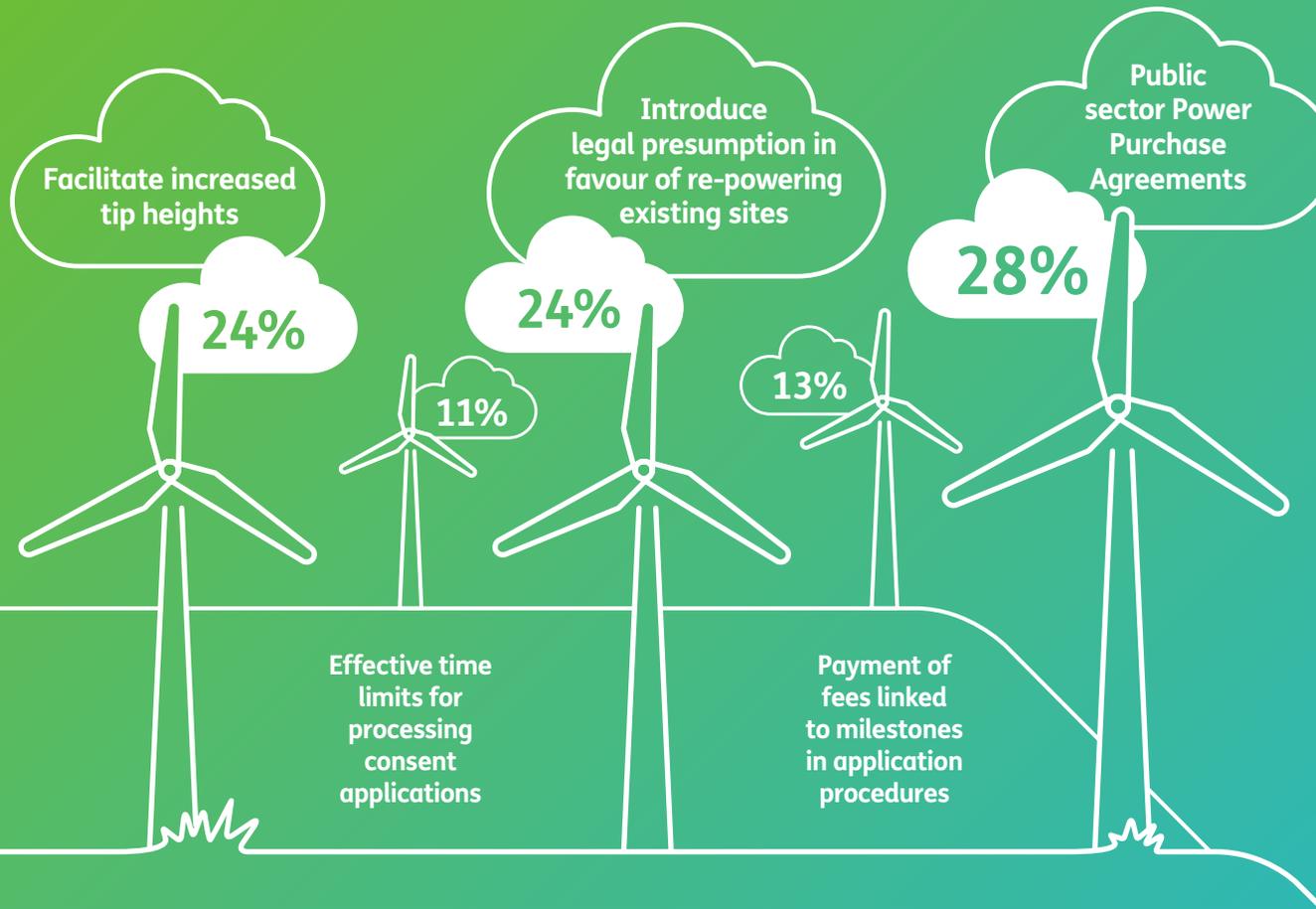


INSIGHT

Our results show strong support for imposing an obligation on developers to install district heating in new developments. There is economic risk in this approach, if imposing such an obligation acts as a significant disincentive to developers. The Scottish Government may well therefore look to implement this policy through the planning system and provide guidelines to local planning authorities on when to make development conditional on the installation of district heating. Interestingly, this follows the adoption of such a policy in London, which has been successful.

RENEWABLES SURVEY RESULTS

What is the single most useful change that the Scottish Government could make to promote onshore wind development?



INSIGHT

It is interesting that there was no clear ‘winner’, with three policy measures receiving a similar level of support. It is clear, therefore, that the industry believes there are several policy steps that the Scottish Government can take to promote further onshore wind development in Scotland. Some of these may be controversial but they do highlight the fact that it is not solely up to the UK Government. It is also interesting that the changes to the consenting process do not figure more prominently – apparently the industry is now used to navigating the challenges of our planning system.



A restriction of tip heights for onshore wind developments.



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