

Aberdeen & Grampian Chamber of Commerce

Energy Transition

38th Survey | Autumn 2023



Aberdeen &
Grampian
Chamber of
Commerce



Research
Chamber



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Sponsor forewords

ETZ Ltd is proud to partner with Aberdeen & Grampian Chamber of Commerce and KPMG once again in support of the Energy Transition survey, the publication of the 38th edition coming as progress continues to be made on realising the significant opportunities presented to the North East of Scotland by the shift towards low carbon energy.

The most encouraging indicators from the latest findings are that the vast majority of respondents consider our region as being very important in terms of delivering domestic energy security.

And this is backed up by increasing levels of confidence in the Aberdeen region becoming a globally recognised renewable energy hub, leading on our national energy transition ambitions.

This is, of course, the central focus of ETZ Ltd; to reposition the region as a globally recognised energy cluster focussed on the delivery of net zero.

Our industry has every reason to be confident in this regard. As a result of the ScotWind and INTOG (Innovation & Targeted Oil & Gas) leasing rounds a massive 17GW of agreed floating wind projects will be cited within 100 nautical miles of Aberdeen accounting for 73% of all such projects in Scottish waters. Indeed, planned floating wind projects off Scotland's coast currently make up almost a third of the global floating wind pipeline so, given our existing expertise in subsea engineering capability, this really is a sector where we can achieve genuine market leadership.

Furthermore, the decision of the UK Government since the last survey to support the Acorn CCUS project at St Fergus is hugely welcome and confirmation that the waters off the Buchan coast are one of the most cost-effective locations to advance CCUS in the UK given the capacity for CO2 storage in the North Sea and the existing oil and gas infrastructure available to repurpose for CO2 transportation and storage.

The awarding of an investment zone to the North East of Scotland is a further significant boost to our region and we are grateful to both the Scottish and UK Governments for recognising the need to support us as we continue to transform our regional economy.

And yet, despite these welcome interventions, the survey still shows industry confidence is tempered with by relatively high degree of uncertainty in terms of achieving a long term and stable environment for investment. At a geopolitical level, the war in Ukraine shows no sign of abating and the effects of the cost-of-living crisis continue to bite. Policymakers are grappling with the best solutions in the face of constant flux

but the focus on energy security and supply continues to dominate.

However, across the North East of Scotland, our energy industry is rising to these challenges. No-one is labouring under the impression that these will be overcome overnight but the work currently underway across the sector to achieve an accelerated transition demonstrates the continued commitment of our world class energy supply chain to reaching this goal.

Our reputation as an innovative and productive region is both hard won and well deserved, and with continued resilience and optimism, we will secure our position as one of most attractive locations anywhere in the UK, and indeed across the world, for investment in low carbon technologies.

The scale of the task to reposition this region as the Net Zero Energy Capital of Europe is vast. However, in taking the temperature of the sector this biannual survey provides valuable insight into both the challenges and opportunities facing all of us.



Maggie McGinlay
Chief Executive
Energy Transition Zone

Welcome to the 38th edition of the Energy Transition Survey.

Over the years this bi-annual survey has provided a window into the health of the northeast's oil and gas sector, and in more recent times, charted its course towards a more sustainable future.

Once again, the survey has been a collaborative effort led by the Aberdeen and Grampian Chamber of Commerce in partnership with KPMG and ETZ Ltd and aims to capture the sector's mood and provide invaluable insights into its transformation.

This edition tells us that most companies expect continued revenue and profitability growth and there has been an uptick in confidence in UK opportunities. There has also been a surge in companies operating at optimum levels compared with last time. A relatively stable (slightly increasing) oil price has likely helped, and respondents still report 70% of activity involving fossil fuels.

How we transition in the coming years will have huge knock-on impact for supply chains, the environment, jobs and skills, and the economy locally and nationally. Positively this survey tells us the sector continues to diversify, with

respondent's predicting an equal 50:50 split between oil and gas production and alternative activities by 2030. This will happen through a mix of actions including decommissioning, offshore wind, carbon capture and storage, and hydrogen. Though 63% of respondents are taking on more energy transition work, this figure shows a slight decline since the last survey, suggesting strategies may be shifting.

These latest findings are published as the industry faces an important test: will it maintain focus on the energy transition, despite improved market conditions for oil and gas and some policies turning in its favour?

In the six months since the last survey, much has happened to impact the region's energy mix. This includes financial support for the Acorn CCS project, and more recently the Statera Kintore Hydrogen project receiving government backing.

UKCS exploration continues to be prominent on the UK Government's agenda, as demonstrated with the approval of the Rosebank Field and the award of 27 new exploration licences were announced. Additionally, annual oil and gas licensing rounds will be mandated with the carbon impact of new developments versus imported LNG (Liquefied Natural Gas) being considered, as announced in the King's Speech this month. While in September the Prime Minister revised target dates and commitments within the Government's Net Zero strategy.

It will be important to understand how recent policy announcements will affect the sector's outlook, but what is more critical is that the sector remains focussed on the big picture and the ultimate prizes to be won. Reaching Net Zero can deliver a host of benefits for consumers and the economy as a whole: a cleaner environment, lower bills, and warmer homes. A strategy that has the transition at its heart will also be key to attracting and retaining talent, but it requires a huge effort. If we take the foot off the pedal, we risk never fully realising the great opportunities for jobs and investment in our region.

The northeast has huge potential to be a driving force in facilitating the transition to a lower-carbon economy and a Net Zero future. With lots of questions over the political situation in the short term, businesses who want to win in the future need to keep making decisions for the long-term outlook of the sector. That means remaining focussed on the journey to Net Zero and what their role in it will be. Because ultimately, that is the only destination.

Thank you to those who contributed to the survey and to those who engaged in discussions throughout the process. Please enjoy reading these latest results.



Robert Aitken
*Director,
KPMG Transaction Services,
Aberdeen*

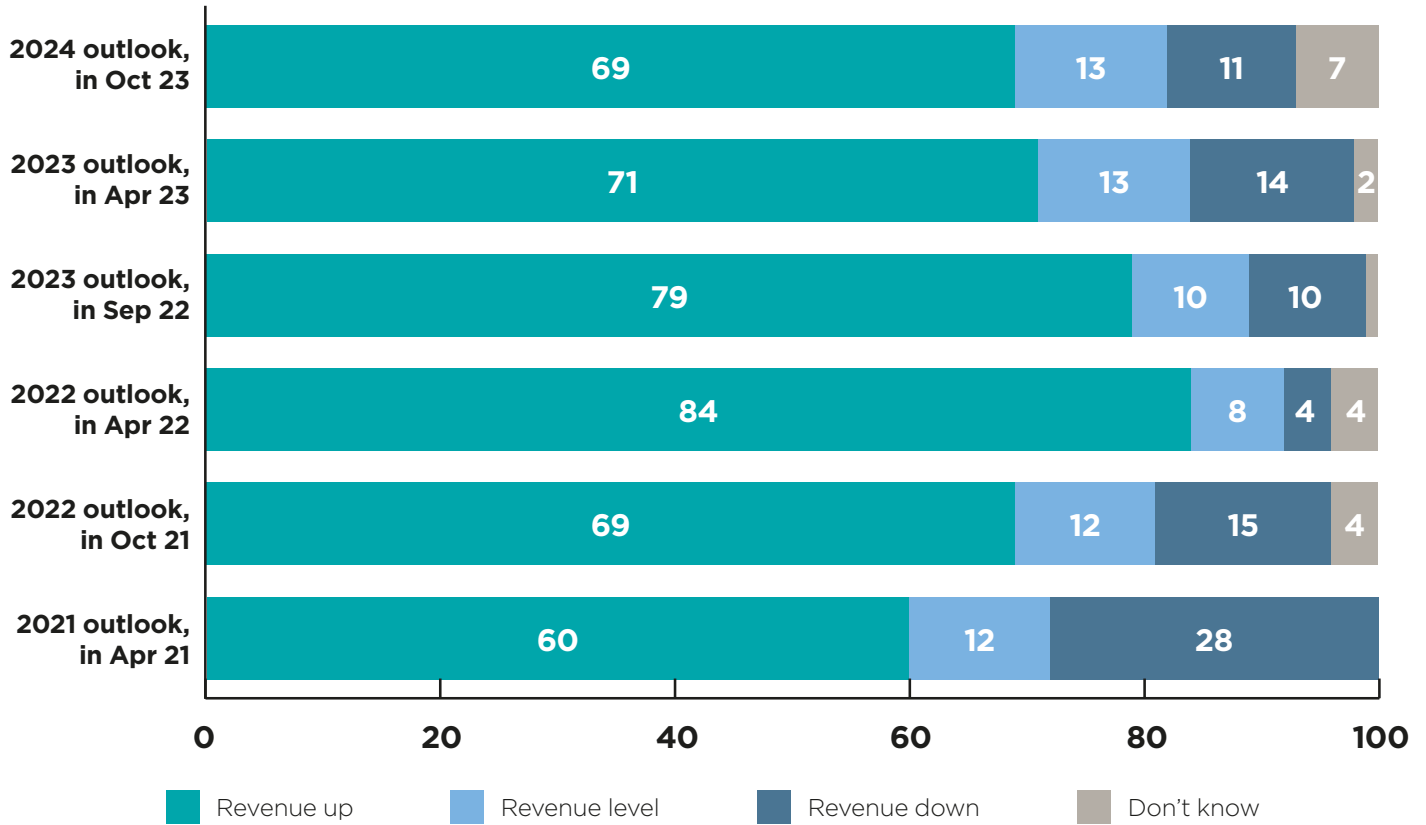
Sector trends and outlook talking points



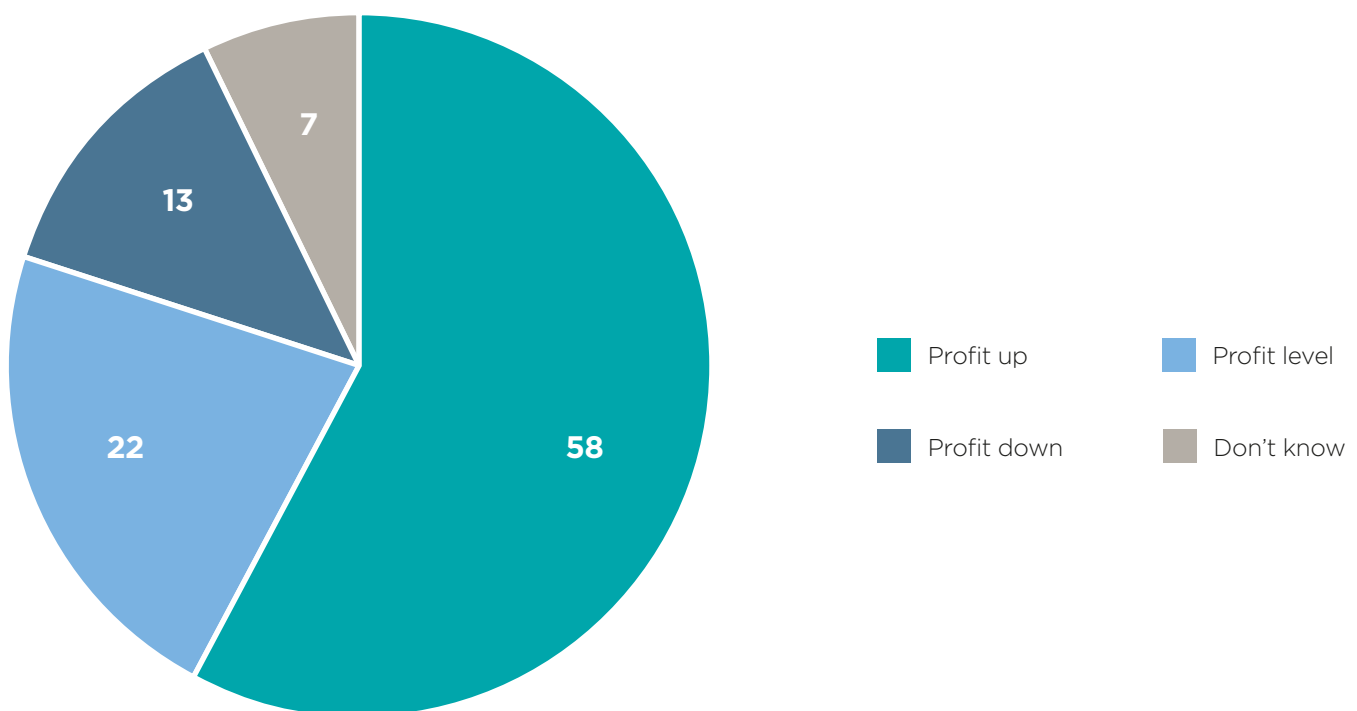
- Majority of the sector believes that revenues will rise in 2024 (albeit down versus last three surveys) and more than half expect profits to rise next year.
- All measures UKCS showing a decline from April apart from production.
- Drops in value of overseas work, most marked in exploration.
- Percentage of businesses working at optimum levels has increased in both the UKCS and internationally.
- Government policy and product/service demand remain the key factors in determining future UKCS activity.
- Increasing importance of demand, workforce availability and access to capital in determining international activity.
- UKCS confidence increased slightly since the low of April. Optimism in overseas activities remains much stronger.

1. Majority of the sector believes that revenues will rise in 2024 (albeit down versus last three surveys) and more than half expect profits to rise next year.

Q: To what extent do you expect your organisation's revenue to change in 2024, compared to 2023:



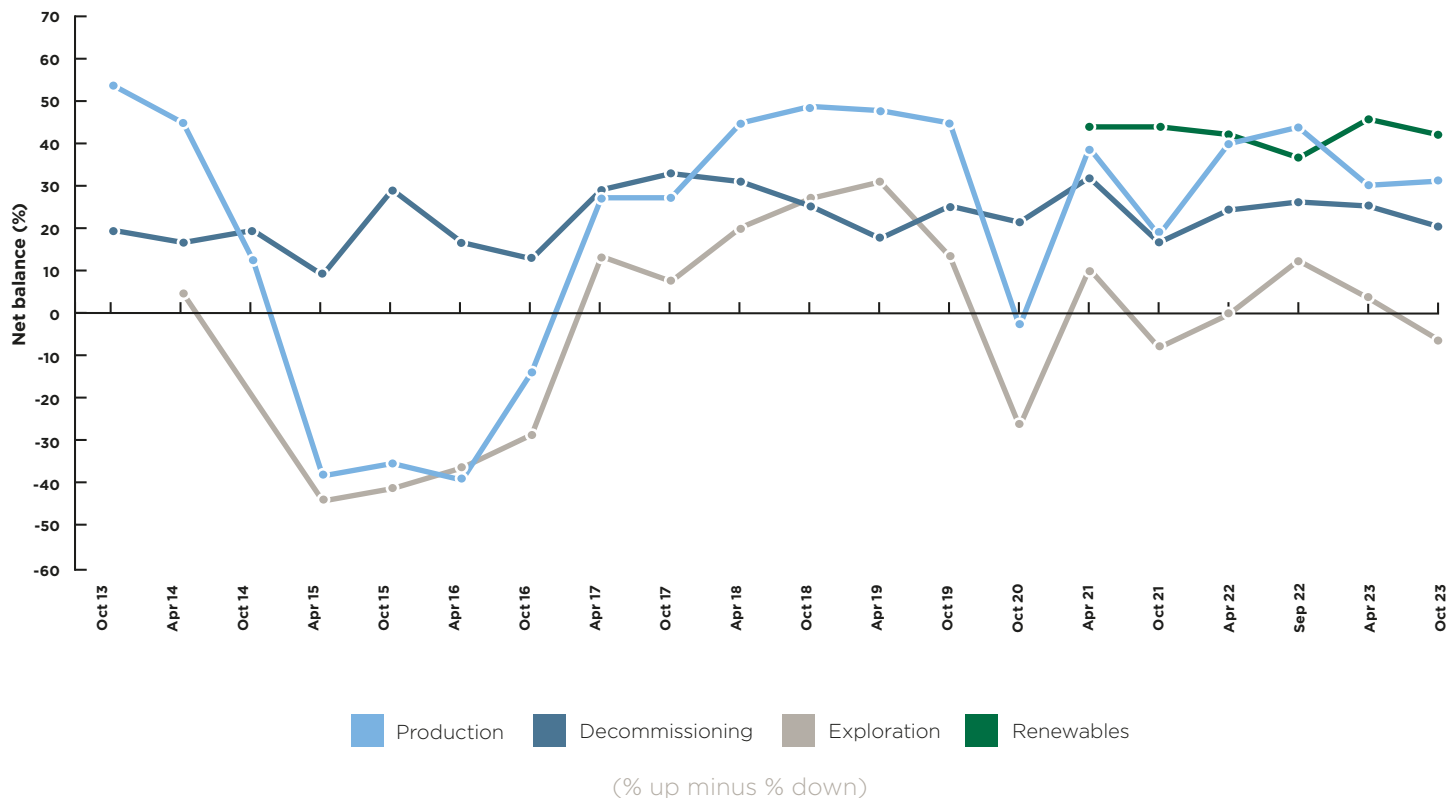
Q: To what extent do you expect your organisation's profit to change in 2024, compared to 2023:



(% sector view of revenue/profit change v previous year)

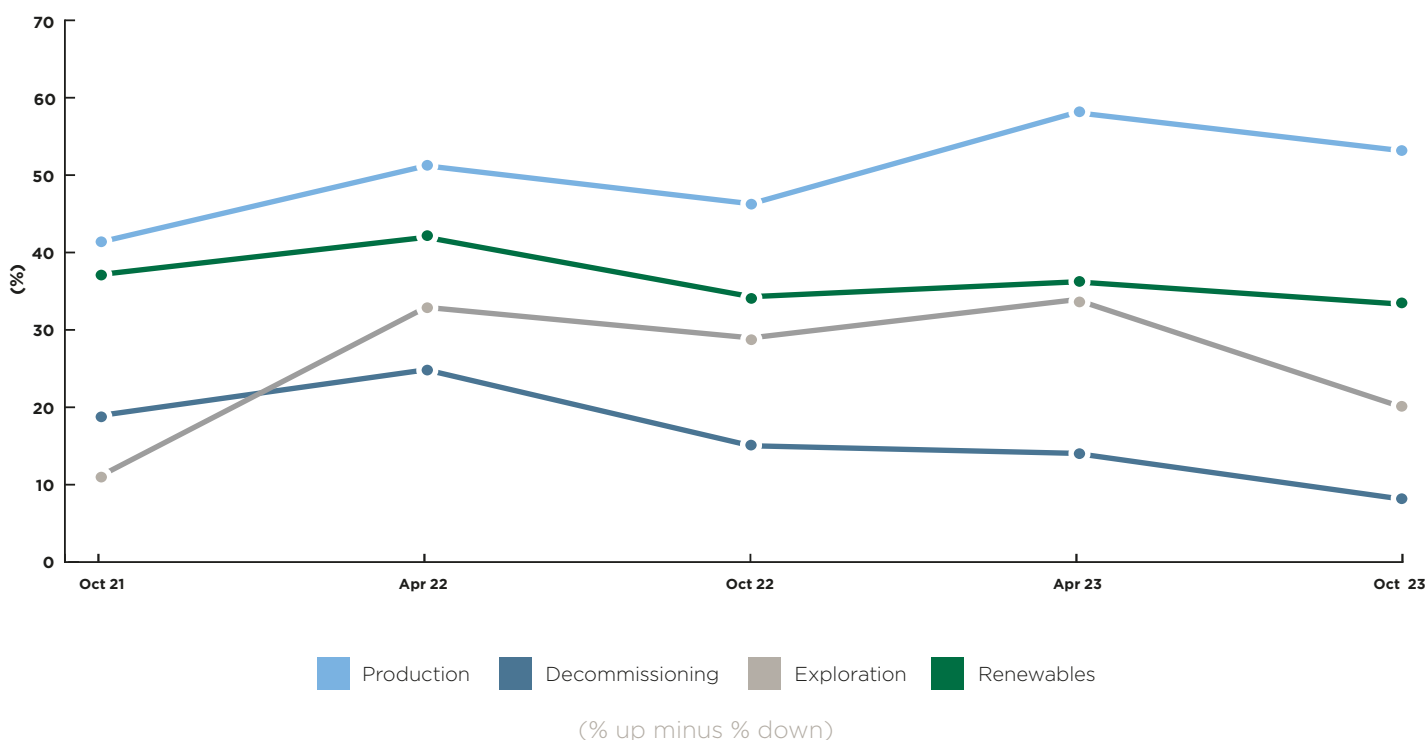
2. All measures UKCS showing a decline from April apart from production.

Q: What are the trends in the total value of your organisation's work in the UKCS of:



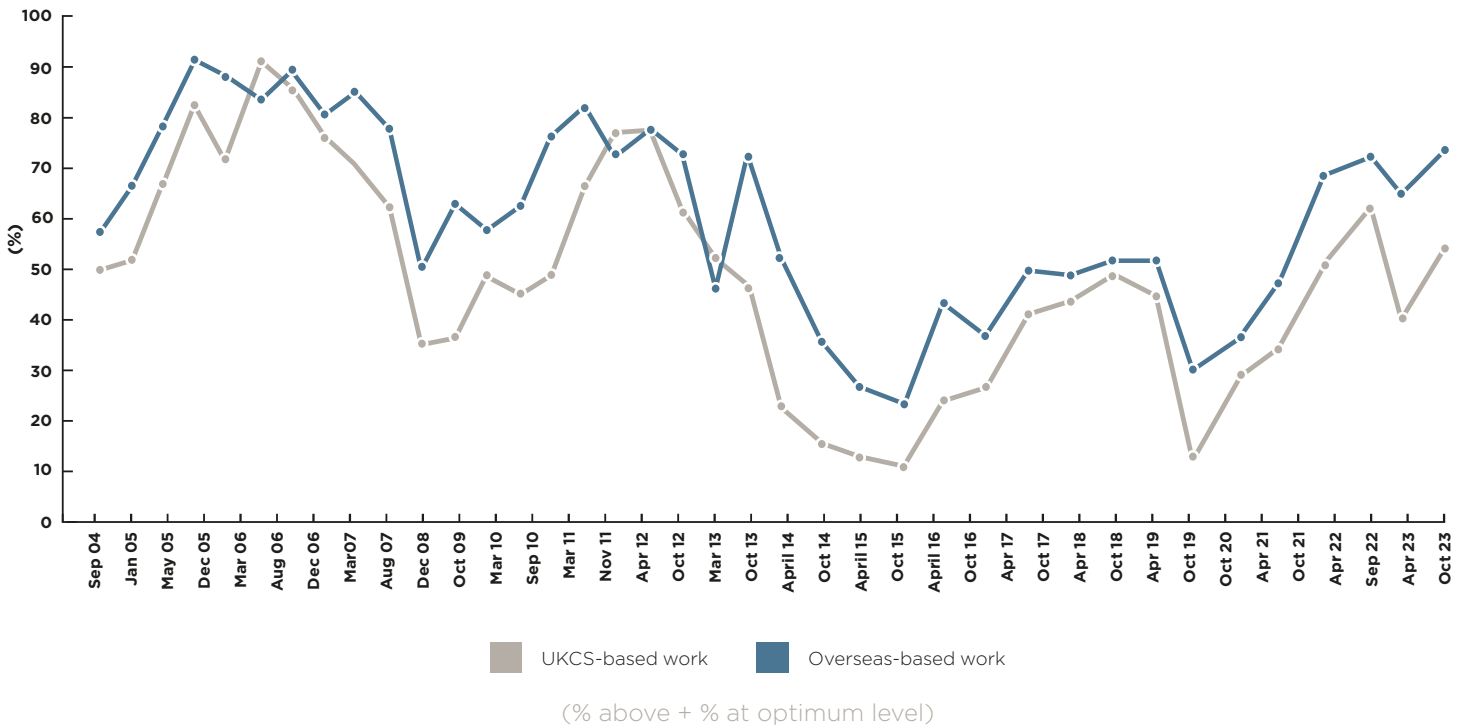
3. Drops in value of overseas work, most marked in exploration.

Q: What are the trends in the total value of your organisation's work outside the UKCS:



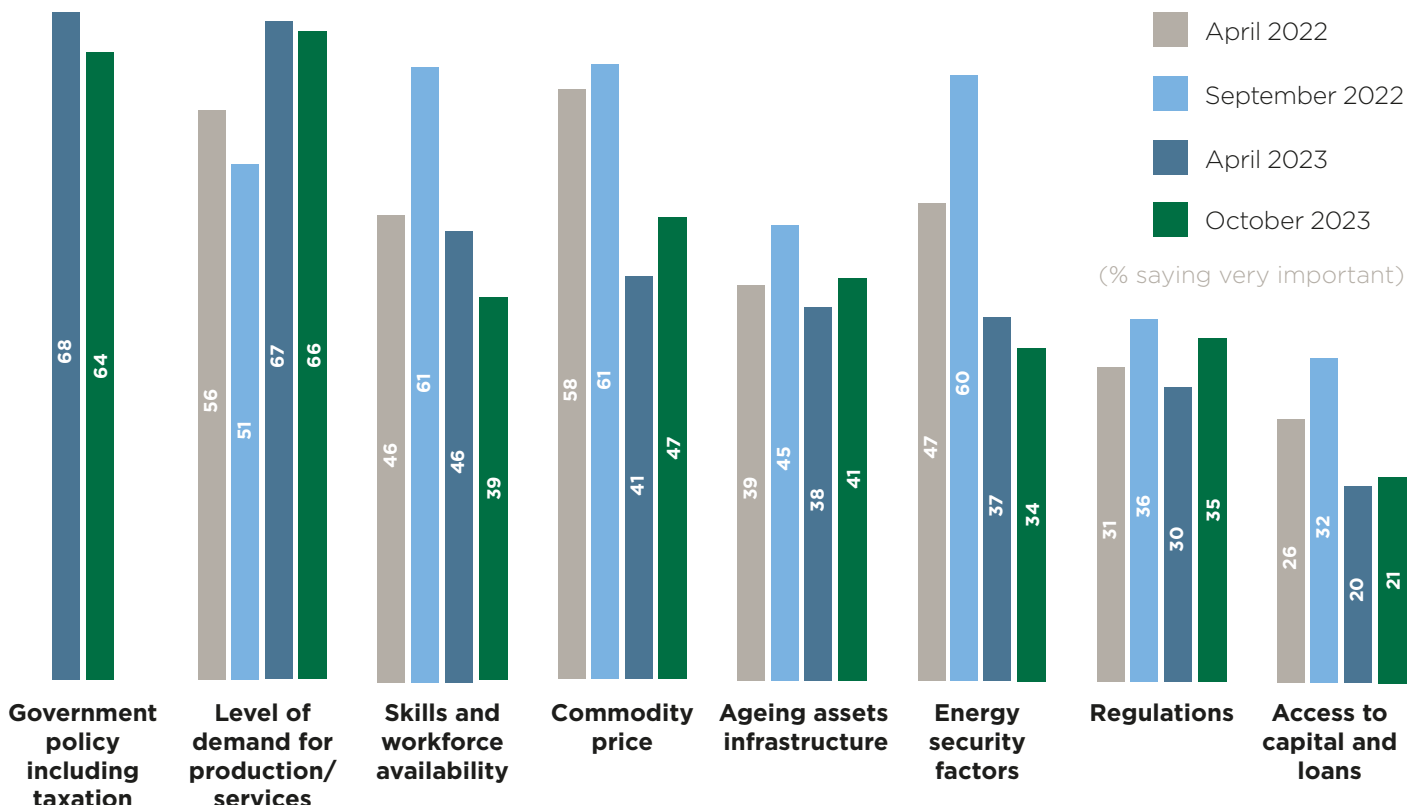
4. Percentage of businesses working at optimum levels has increased in both the UKCS and internationally.

Q: Is the level of UKCS-based/overseas-based work leading to you operating at above or below optimum levels?



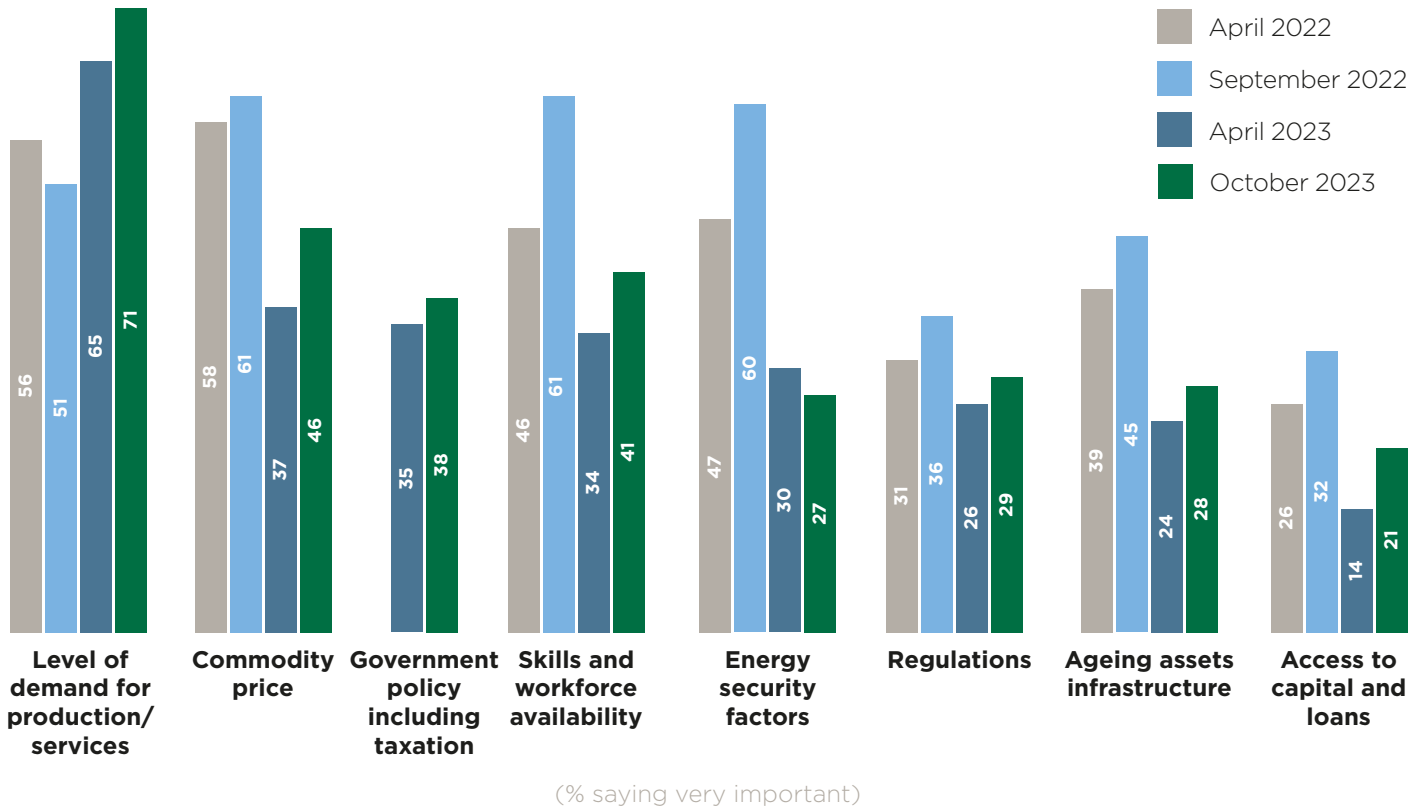
5. Government policy and product/service demand remain the key factors in determining future UKCS activity.

Q: UKCS; How important are the following factors in the level of activity over the next year?



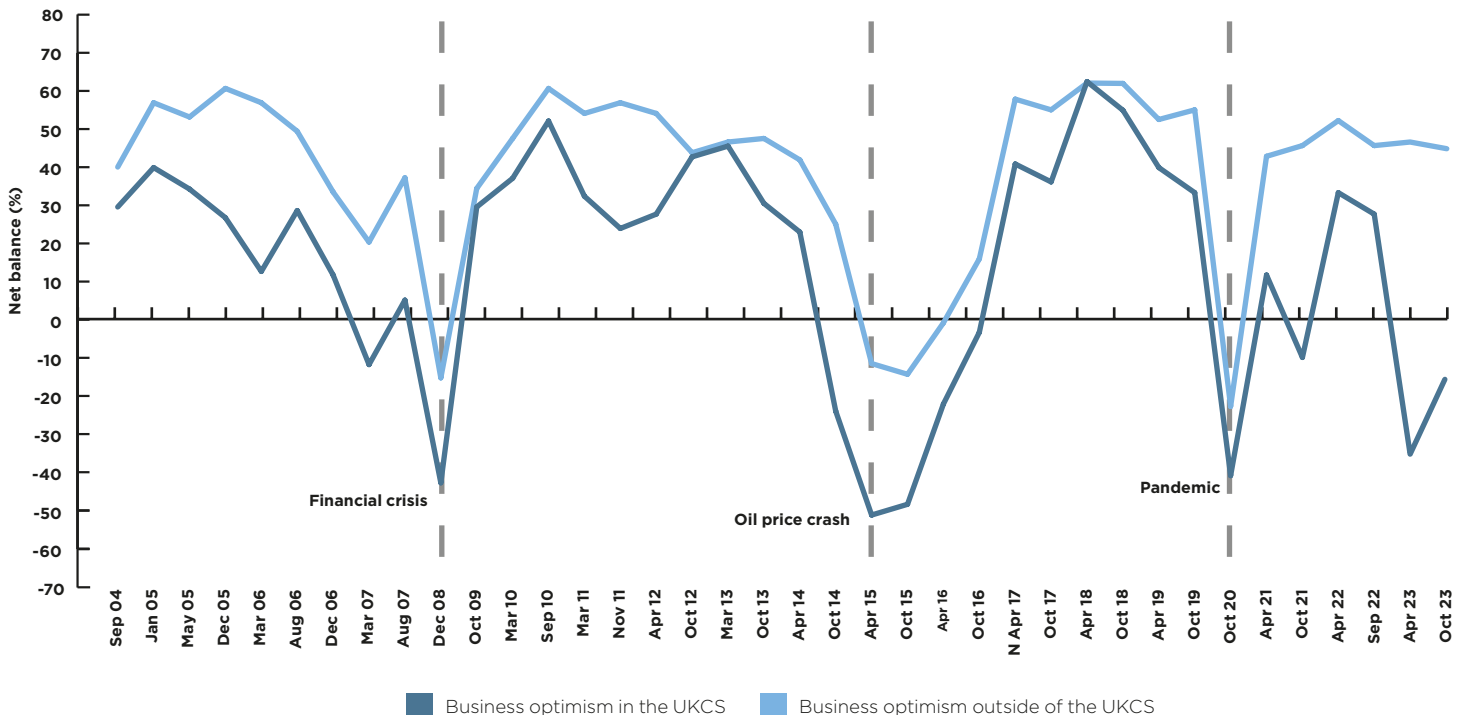
6. Increasing importance of demand, workforce availability and access to capital in determining international activity.

Q: Outside UKCS; How important are the following factors in the level of activity over the next year?



7. UKCS confidence increased slightly since the low of April. Optimism in overseas activities remains much stronger.

Q: Compared to 12 months ago, how confident are you about the business situation in the oil & gas sector in the UKCS and outside of the UKCS over the next year?



Energy Transition Case Study - Fraserburgh Harbour



For several years, Fraserburgh Harbour has been keenly aware of the need to work towards decarbonisation. Not least as a supplier to the offshore wind industry (the Harbour is O&M base for Ocean Winds' Moray East windfarm), the topic of decarbonisation has been high on our agenda, as we understand the criticality of aligning our own objectives with those of our customers.

Earlier this year, we commissioned Sealand Projects to produce a decarbonisation report for the Harbour, identifying and measuring our carbon emissions and providing us with a strategy to reach Net Zero across scopes 1 and 2 by 2035 and reduce scope 3 emissions by 65% by 2040.

Electrification of Fleet & Fossil Free Fuel

Like so many ports and harbours, the majority of our emissions lie within scope 3, and our ongoing programme of emissions reductions within this scope includes the deployment of an e-cargo bike (secured via a grant award from Nestrans), which replaces a van when taking meter readings around the Harbour. We have also commissioned an electric work boat (due to be operational Q2 2024) to decarbonise Harbour clean-up work/maintenance activity, and plan to replace our gas-powered forklift truck fleet with electric equivalents.

We are actively investing (where

technology allows) in replacing diesel vehicles, plant and equipment with HVO.

Future plans include development of a strategy to generate our own energy in a viable way from renewable energy sources into a Smart Grid around the Harbour, and best use of regenerative power, created by our shiplift when undocking vessels back into the water.

Ahead of the Game - the Impact of Shore Power

The report identified that our provision of shore power already reduces the carbon emissions from visiting vessels by ~80%.

We're proud to have provided every berth in Fraserburgh Harbour with ship to shore power since 2015 and we expanded the scheme in 2019 when the Harbour berthing was reconfigured to accommodate a more diverse source of income. The smallest vessels such as the leisure and inshore working boats have hook up on the Pontoon, thus increasing capability to serve the offshore support vessels and some of the very biggest vessels within Scotland's large pelagic fleet.

The Harbour Masterplan - an Energy Transition Enabler

The Fraserburgh Harbour Masterplan is, in itself, a clear illustration of the Harbour's decarbonisation strategy. A vision and strategic framework for developing the Harbour over the

next 20 years across all client groups, it optimises Fraserburgh's unique position through experience, location and capability to support the huge expansion in offshore wind and the associated demands for quayside space and Harbour access.

We believe it is an essential component in our nation's transition to green energy and achieving Net Zero and it reflects one of our key objectives; to be a leading light locally in the energy transition - not just as a provider of offshore wind industry services, but also as an organisation which is focused on leading our community in its commitment to the wider energy transition and its reduction on carbon emissions.

A fundamental element of the Masterplan our wider community work. For example, we engage with Fraserburgh Academy on a number of projects, from careers events in conjunction with offshore wind operators, to work experience opportunities and collaboration with teaching staff to inform particularly local elements of the curriculum. In this, we are not only educating the next generation on the various facets of the energy transition, we are also ensuring local pupils understand the impact of the Harbour upon their own future, and the opportunities available to them.

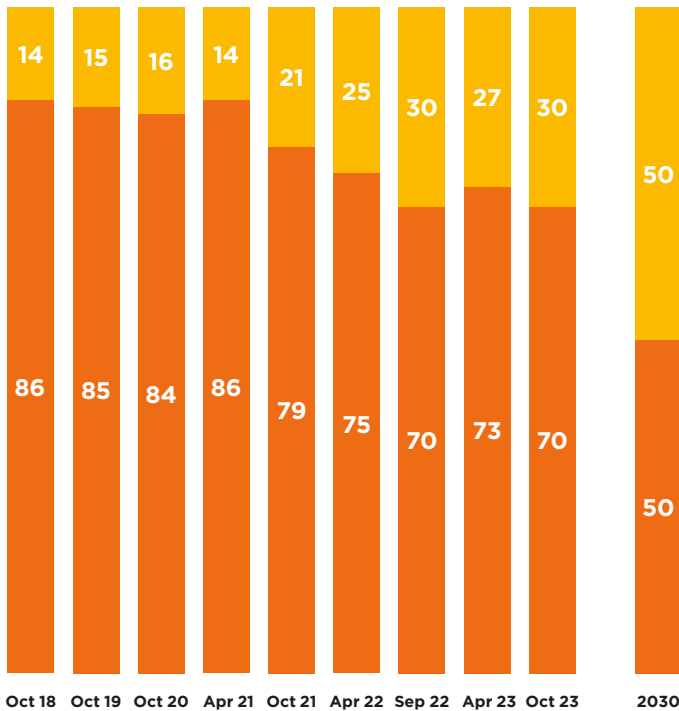
That engagement with the next generation is, we believe, the essence of a successful, sustainable decarbonisation strategy and energy transition.

Sector diversification talking points

- Slight growth since April in proportion of work outside oil & gas. And 2030 forecast has shifted from 55:45 oil and gas to 50:50. Greatest growth forecast in decommissioning, offshore wind, CCUS & hydrogen.
- 63% of respondents are actively or organically diversifying their operations from oil & gas (down from 68% Apr-23).
- Market stability, diversification challenges, employment costs & recruitment issues are the biggest long-term concerns for sector businesses.
- Profitability/ROI is the top barrier to diversification. Political & regulatory environment seen as worsening. R&D costs and export challenges on the increase.
- Nearly all respondents believe the Aberdeen/ North East energy sector will play an important role in providing UK energy security and leading the UK's energy transition ambitions.
- Increasing levels of optimism about the Aberdeen region becoming a globally recognised renewable energy hub, although respondents more now pessimistic at UK level.
- Significantly growing belief in the resilience of the region/sector to succeed, despite the barriers and challenges.

8. Slight growth since April in proportion of work outside oil & gas. And 2030 forecast has shifted from 55:45 oil and gas to 50:50. Greatest growth forecast in decommissioning, offshore wind, CCUS & hydrogen.

Q: What is the breakdown of your business activities today and forecast at 2030?



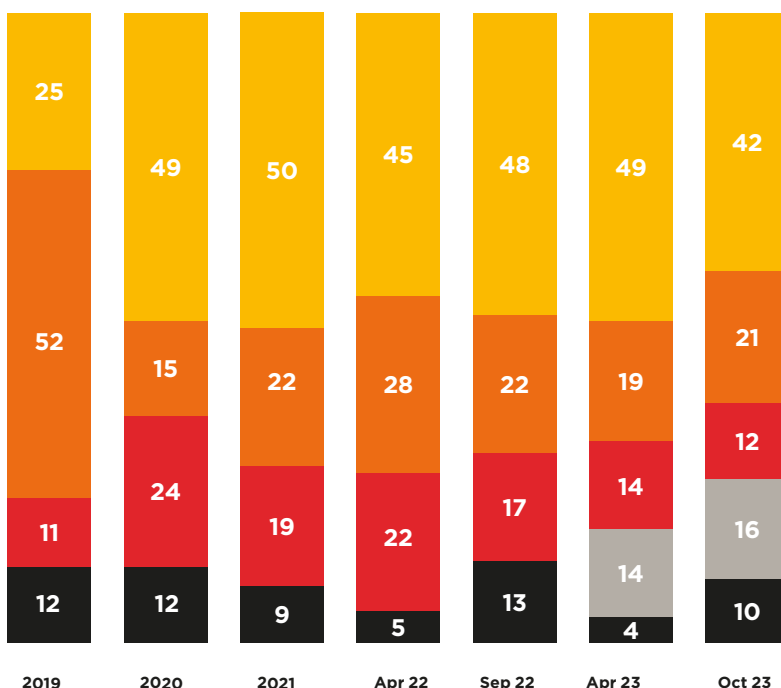
% business outwith oil & gas

	Current % Oct 2023	Current % April 2023	Expected % at 2030
Total Non-Oil & Gas	30	27	50
Offshore wind	4.3	3.3	8.0
Other (geothermal, Marine, waste to energy, ...)	4.9	6	6.5
Decommissioning	6.7	4	10
Subsea engineering	1.7	5	2.7
Carbon capture & storage	2.8	0.9	8.1
Hydrogen production and/or transportation	0.9	0.7	3.9
Onshore wind	0.8	0.8	1.4
General/civil engineering	2.4	1.5	3.5
Nuclear	0.8	0.9	1.2
Power generation	1.7	1.2	2.2
Solar	1.1	1.1	1.5
Electrification	0.9	0.5	2.1
Grid/infrastructure	0.7	1.1	1.1

Note: 2030 data drawn from the October 2023 survey. Data is the mean.

9. 63% of respondents are actively or organically diversifying their operations from oil & gas (down from 68% Apr-23).

Q: Which of the following best describes your business' strategy and approach to energy transition?



- Actively diversifying outwith O&G
- Organically increasing non O&G
- Don't Plan to change O&G proportion
- Increase activities in O&G
- None / Don't know

Q: If diversification is of low or no interest to your organisation, please tell us why?

The majority of respondents did say that it was of interest but that there were barriers.

'Renewable diversification is important, but the confusing Scottish Government policy gives the company little hope that anything will happen.'

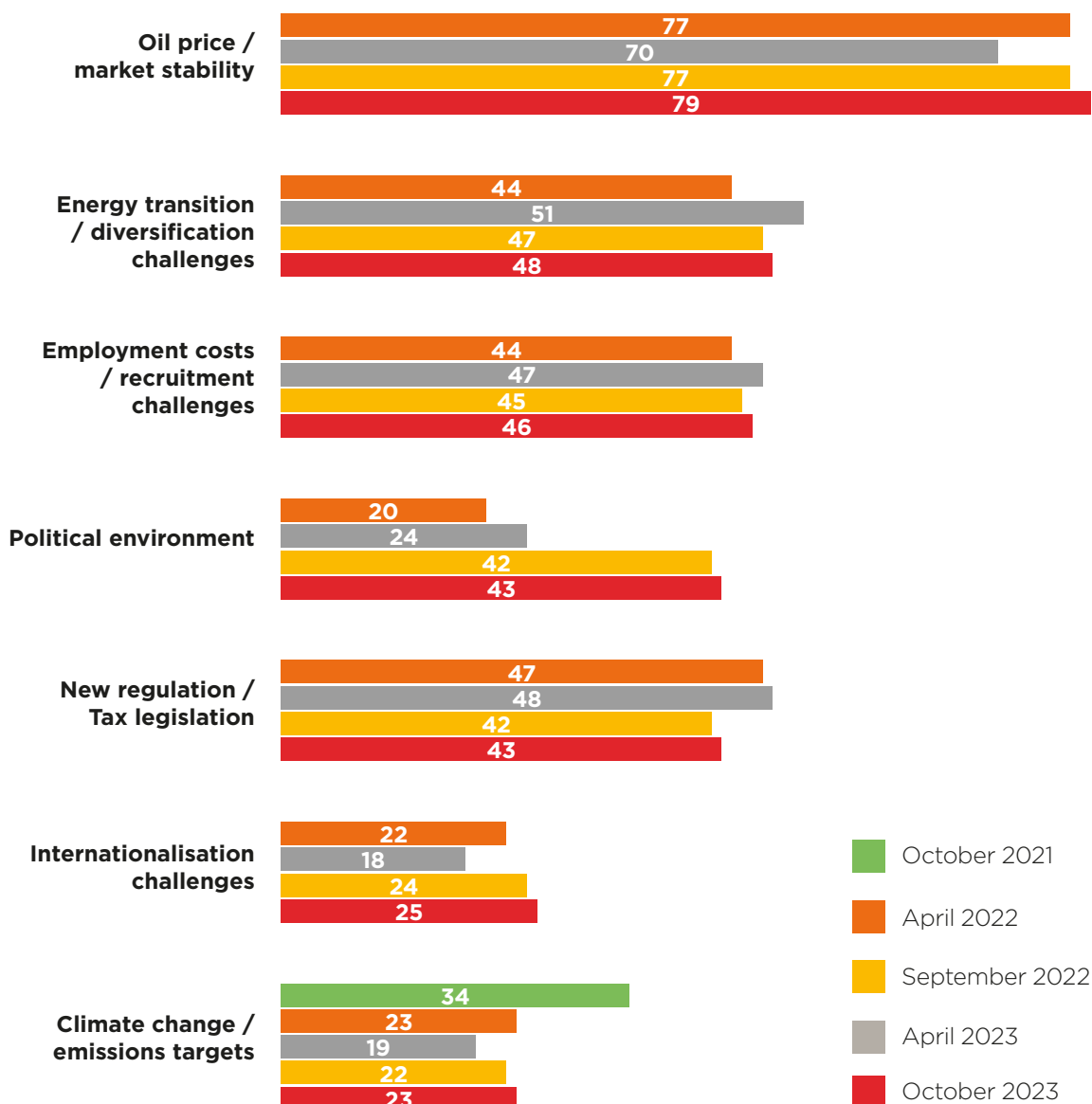
'Diversifying is of interest to my business, but you require funds from oil and gas development to fund alternative oil and gas energy and transition to renewables.'

'It is of interest - of course we have to grow and evolve. However, it will not overtake our oil and gas projects'

10. Market stability, diversification challenges, employment costs & recruitment issues are the biggest long-term concerns for sector businesses.

Q : What are the top three concerns for your organisation's long-term future (i.e. next 10 years)?

	Top priority	2nd	3rd	Total
Oil price / market stability	43%	21%	17%	79%
Energy transition and diversification challenges	11%	17%	25%	48%
Employment costs and recruitment challenges	18%	15%	11%	46%
Political environment	12%	21%	18%	43%
New regulation / tax legislation	11%	20%	20%	43%
Internationalisation challenges	5%	3%	5%	25%
Climate change and emissions targets	6%	12%	11%	23%
Other	5%	3%	5%	2%

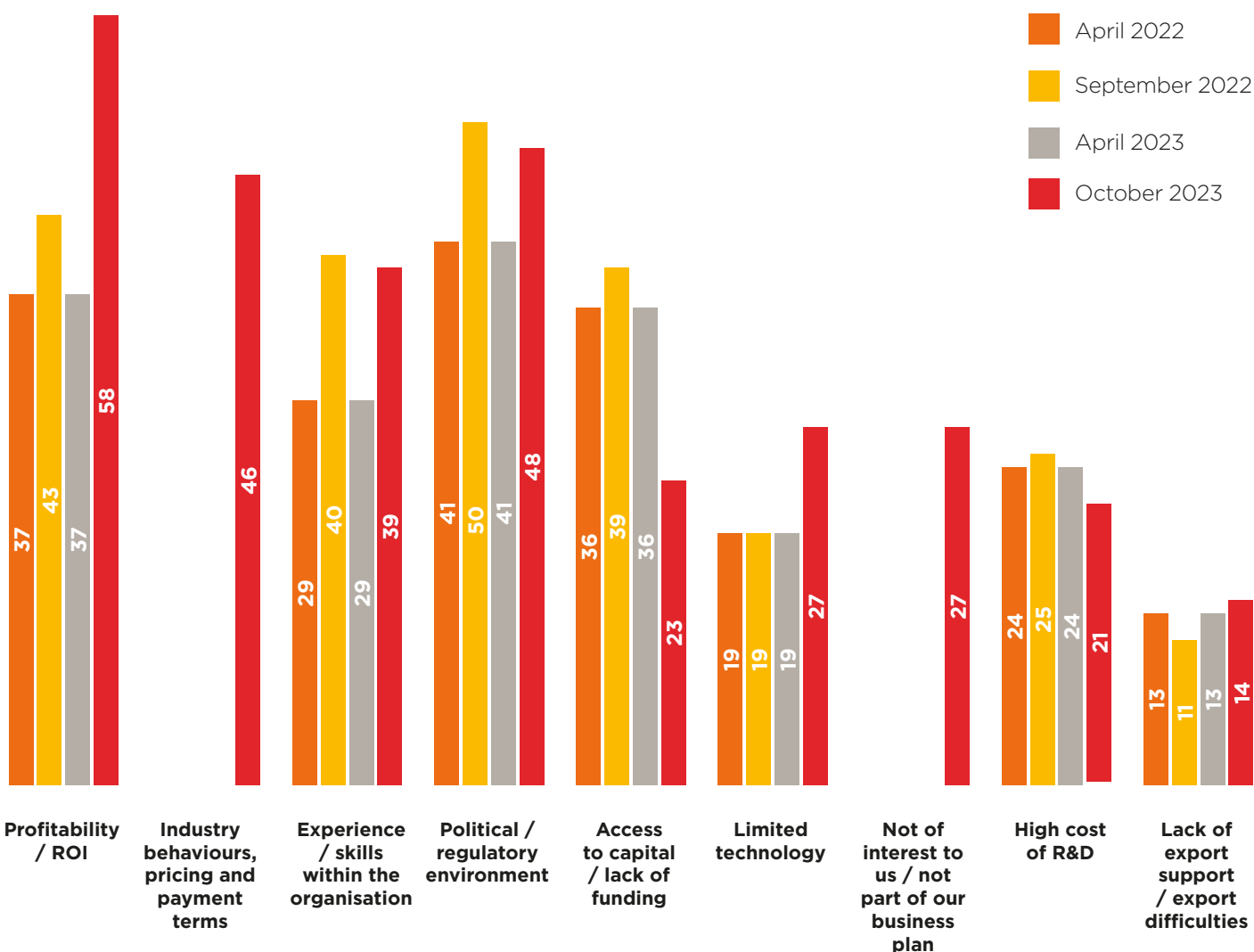


11. Profitability/ROI is the top barrier to diversification. Political & regulatory environment seen as worsening. R&D costs and export challenges on the increase.

Q: Which of the following do you consider as the main barriers / challenges to diversification into renewable energy?

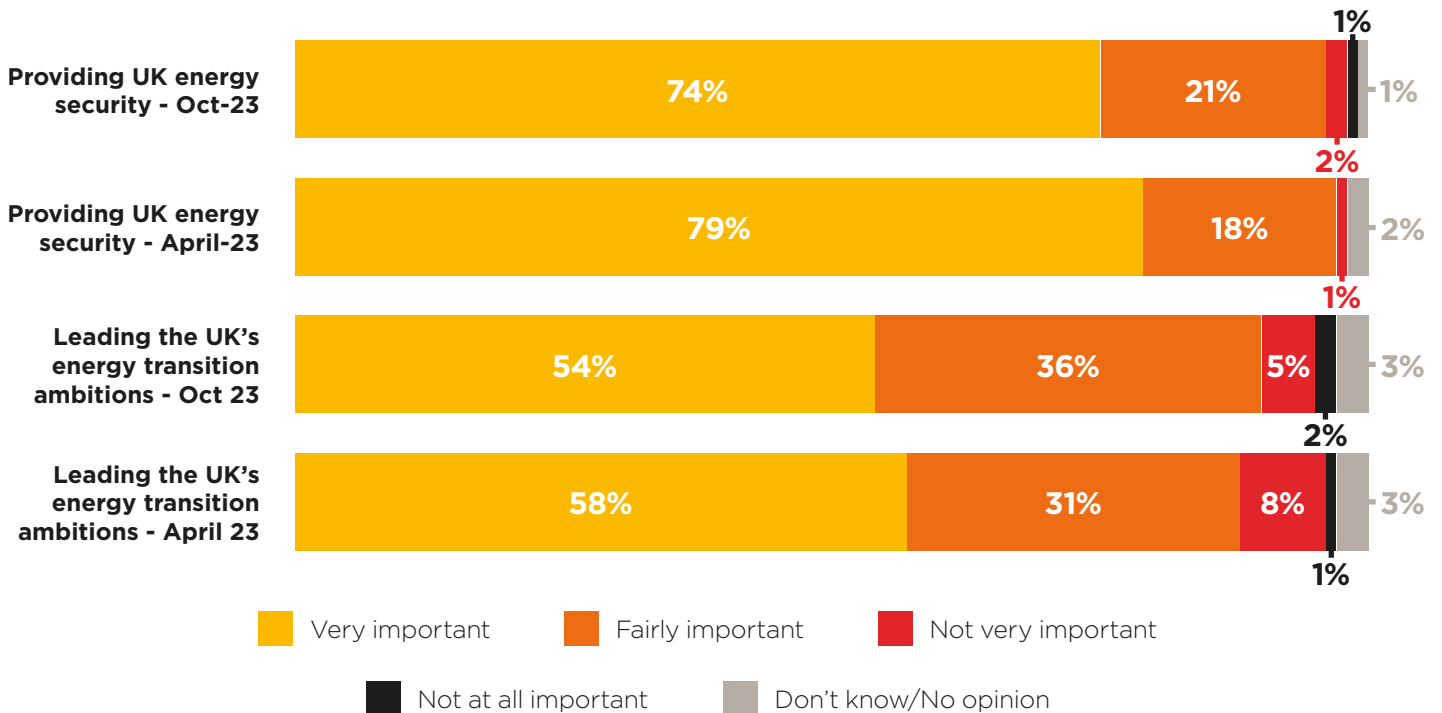
	Top priority	2nd	3rd	Total Oct 23	Total Apr 23
Profitability / ROI	24%	17%	17%	58%	62%
Political / regulatory environment	18%	21%	9%	48%	41%
Industry behaviours, pricing and payment terms	13%	12%	21%	46%	60%
Experience / skills within the organisation	13%	14%	12%	39%	45%
Limited technology	11%	7%	9%	27%	19%
Not of interest to us / not part of our business plan	11%	6%	10%	27%	19%
Access to capital / lack of funding	10%	11%	2%	23%	20%
High cost of R&D	3%	8%	10%	21%	15%
Other	5%	7%	7%	19%	12%
Lack of export support / export difficulties	2%	5%	7%	14%	7%

Q: Which of the following do you consider as the main barriers / challenges to diversification into renewable energy?



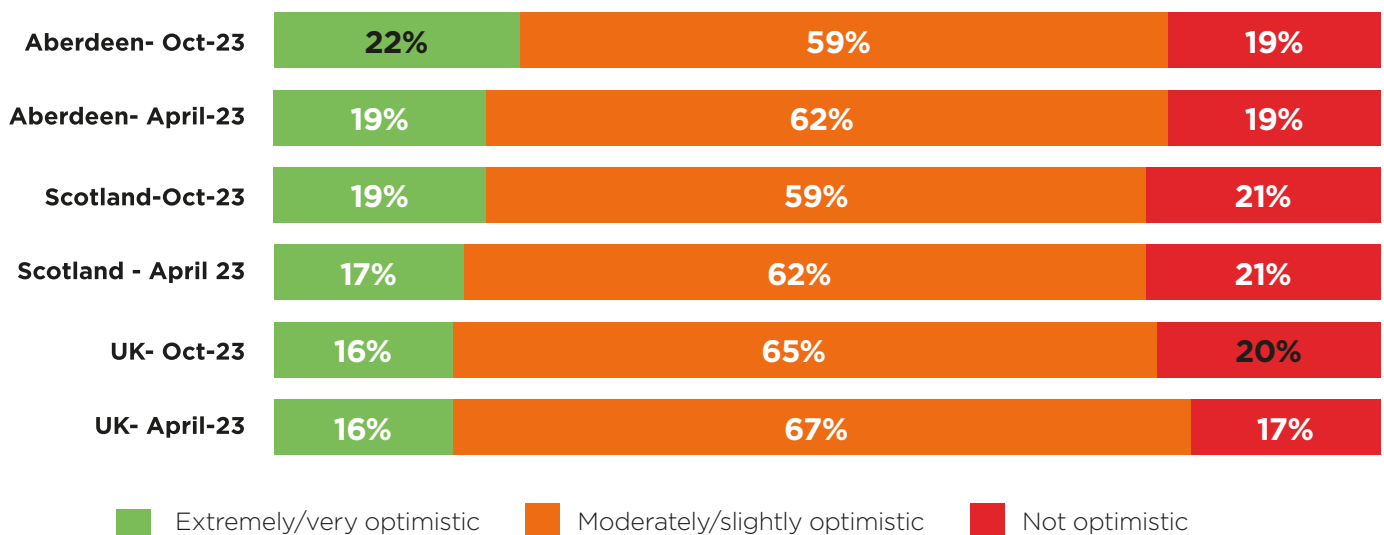
12. Nearly all respondents believe the Aberdeen/ North East energy sector will play an important role in providing UK energy security and leading the UK's energy transition ambitions.

Q: How important do you view the Aberdeen and North East energy sector's role in providing UK energy security and leading the UK's energy transition ambitions



13. Increasing levels of optimism about the Aberdeen region becoming a globally recognised renewable energy hub, although respondents more now pessimistic at UK level.

Q: How optimistic are you about the long-term future of a) Aberdeen, b) Scotland, & c) UK as leading the way as an integrated globally recognised energy hub focused on the delivery of net zero?

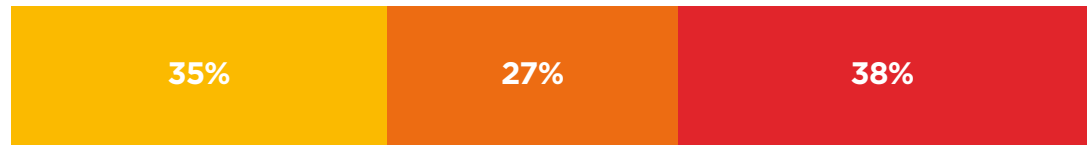


13. Significantly growing belief in the resilience of the region/sector to succeed, despite the barriers and challenges.

The resilience of businesses in the North-east to be successful in establishing the region as a global renewable energy hub (Oct-23)



The resilience of businesses in the North-east to be successful in establishing the region as a global renewable energy hub (Apr-23)



■ % 1-4
 ■ % 5-6
 ■ % 7-10

Why do you say that?

Why do you say that?		
Aberdeen	Scotland	UK
<p>Aberdeen has a highly skilled workforce having already been a hub for oil and gas energy for many years. I am very optimistic that these skills can play a major part in the development of the renewable energy sector and the gradual transition from oil and gas to a more sustainable future. However, support from Government, both at Holyrood and Westminster, for a gradual transition, is essential.</p> <p>I'm not sure Aberdeen City is that attractive a place to live these days, and remote working is now commonplace. I hope some of the efforts being made into improving the city centre make an impact. Are young people motivated to move to Aberdeen for work or study?</p> <p>I don't know.</p> <p>Lack of government certainty and investment - no offshore wind licences bid - non competitive supply chain/workforce/skills compared to outside UK</p>	<p>Scotland has great potential to lead the world in transition to renewables and great opportunity to export the technologies and skills. Aberdeen will play key role in driving Scotland plans</p> <p>There is concern that the downward spiral in oil & gas will result in companies and people moving internationally and creating a vacuum in resources, thus stifling the capability in the energy transition.</p> <p>The political climate is not joined up across UK, Scotland and NE. Add windfall taxation and other investments challenges and there is a real risk of driving away investors to more welcoming regions.</p>	<p>I believe that the UK has an existing world-class skills base that if properly supported can support the UK's energy transition. Aberdeen and Scotland are at the heart of this capability.</p> <p>The UK is losing ground to the EU, USA and other geographical markets that are proceeding at greater pace in the deployment of renewable technology. They have also set up the funding and regulatory framework to make this happen. Turing policy into meaningful action is a major issue in the UK.</p> <p>Decades of a revolving door of Energy Ministers who are clueless about the industry and never in post for long enough to learn.</p>

■ Extremely/very optimistic
 ■ Moderately/slightly optimistic
 ■ Not optimistic

Energy Transition Case Study - TWMA



Tell us a bit about your business.

TWMA is the world's leading drilling waste specialist. For more than 20 years, we have pioneered technologies for the safe and effective handling, storage and processing of drill cuttings generated from drilling operations. Our strategic focus is taking waste processing to the wellsite. This eliminates the requirement to ship drilling waste to shore for treatment. This allows operators to reduce the carbon emissions of their operation by 50%, while improving safety performance and lowering cost. Our flagship drill cuttings processing technology, the RotoMill®, is globally recognised as the safest and most effective method for the processing of drilling waste at source.

Can you tell us about the transition journey your business has been on?

TWMA's journey has been one marked by innovation and a commitment to sustainable practices. When we started over 20 years ago, the UK Oil & Gas sector was less focussed on the environmental implications of waste management. Over time environmental regulations have tightened, and now the North Sea has some of the most stringent environmental regulations of any basin in the world. TWMA solutions were developed to not only ensure environmental compliance, but also to recycle waste streams into valuable resources that can serve

to reduce customer project costs.

Through extensive research and development, we have introduced technologies and solutions that have transformed drilling waste management into a more sustainable, efficient and environmentally friendly practice, setting new standards for the industry.

In recent years environmental compliance has evolved from processing and cleaning waste streams to predetermined levels prior to disposal, to include efforts to reduce the carbon footprint of drilling operations. TWMA partnered with DNV to create an industry first emissions calculator for drilling waste management. This detailed model allows operators to evaluate and compare different waste management approaches to ensure the lowest carbon emissions approach is selected. TWMA always strive to deliver the lowest cost and carbon solutions to our clients.

Aligned with our drive to reduce the environmental footprint of drilling operations, this year we launched the latest generation RotoMill®. RotoMill® 2.0 represents two decades of experience and lessons learned and is the most energy efficient RotoMill® we have ever built. It incorporates our in-house developed X-link™ technology, designed for enhanced real-time operations to reduce POB, and will lead the way in delivering new drilling insights to our customers.

Our transition journey has been a blend of technological advancements, proactive adaptations to industry needs, and a steadfast dedication to environmental excellence. As we look to the future, we remain committed to advancing our methods, further integrating sustainability into every aspect of our operations.

What advice would you give to businesses embarking on a similar transition journey?

"For businesses embarking on a similar transition journey, it's crucial to prioritise long-term sustainability over short-term gains. Embrace innovation, but ensure every technological advancement aligns with core values and broader industry needs. Invest in research and development, as this will be the foundation for future growth. Encourage a company-wide culture that values adaptability and environmental responsibility and maintain open channels of communication with stakeholders. Genuine transition is a balance of technological evolution, ethical considerations, and stakeholder engagement." Gareth Innes, Chief Engineering and Commercial Officer, TWMA.

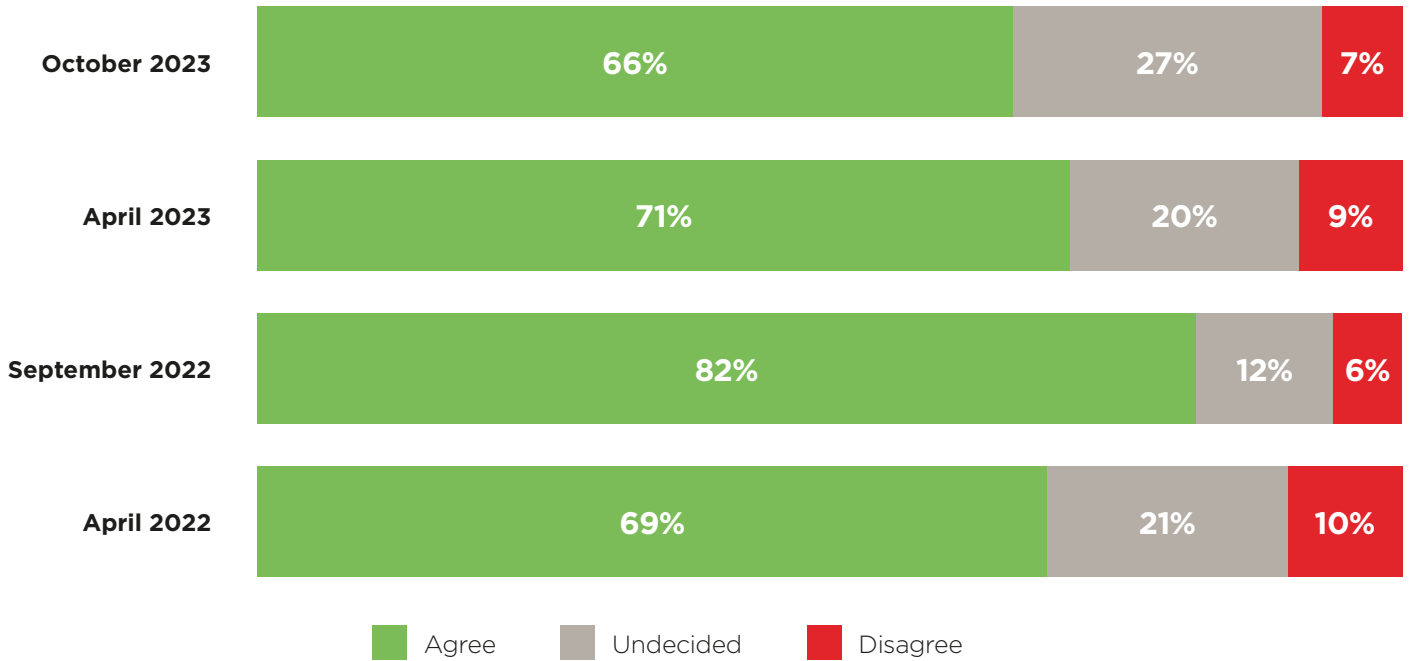
Net zero and ESG strategies talking points



- Further decrease in % of respondents believing that energy transition credentials are critical to their long-term success.
- A marked decrease in the number of firms saying they have developed net-zero strategies.
- Of those companies adopting net zero strategies we are seeing positive progress with these being on track.
- Less companies report having accelerated Net Zero plans compared to the last survey.
- There was a spectrum of responses when companies were asked about their ESG strategies- very similar to the Apr 23 data.
- Fewer customers requiring validation of suppliers' commitment to net zero/ESG strategies since last survey.

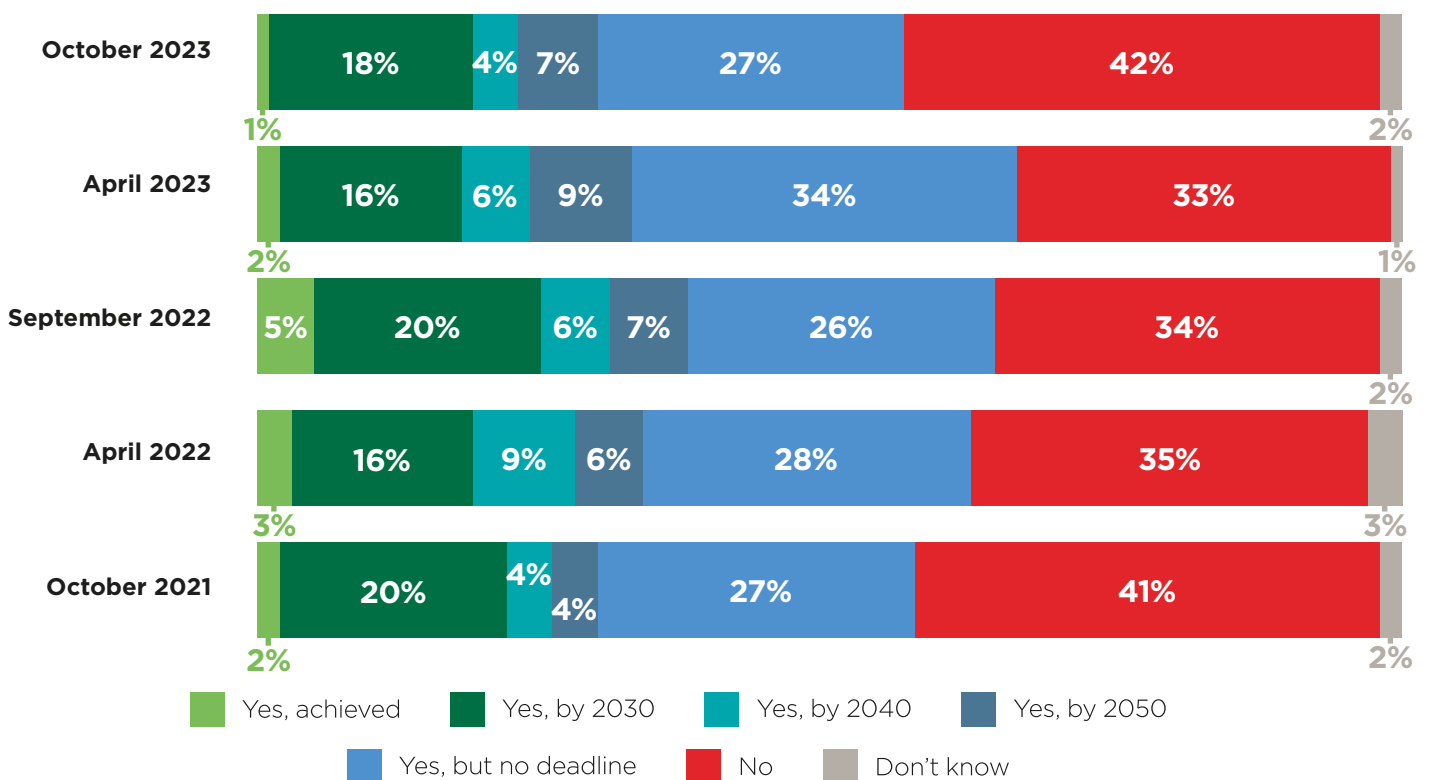
14. Further decrease in % of respondents believing that energy transition credentials are critical to their long-term success.

Q: To what extent would you agree that energy transition credentials are critical to your long-term success.



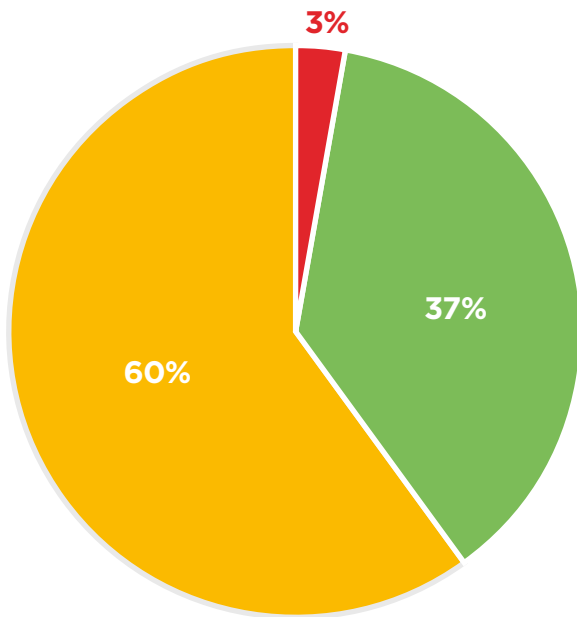
15. A marked decrease in the number of firms saying they have developed net-zero strategies.

Q: Has your business developed a specific net-zero strategy?



16. Of those companies adopting net zero strategies we are seeing positive progress with these being on track.

Q: On a RAG rating, do you feel that your business is on track with your net-zero strategy/strategy to reduce your carbon footprint?



Q: Why do you say that?

A comprehensive programme should be made available to SMEs to achieve targets. These should be supported financially and technologically.

A lot of policies have been implemented and actions already taken ahead of schedule.

Have planted 102,000 trees. Native woodland scheme.

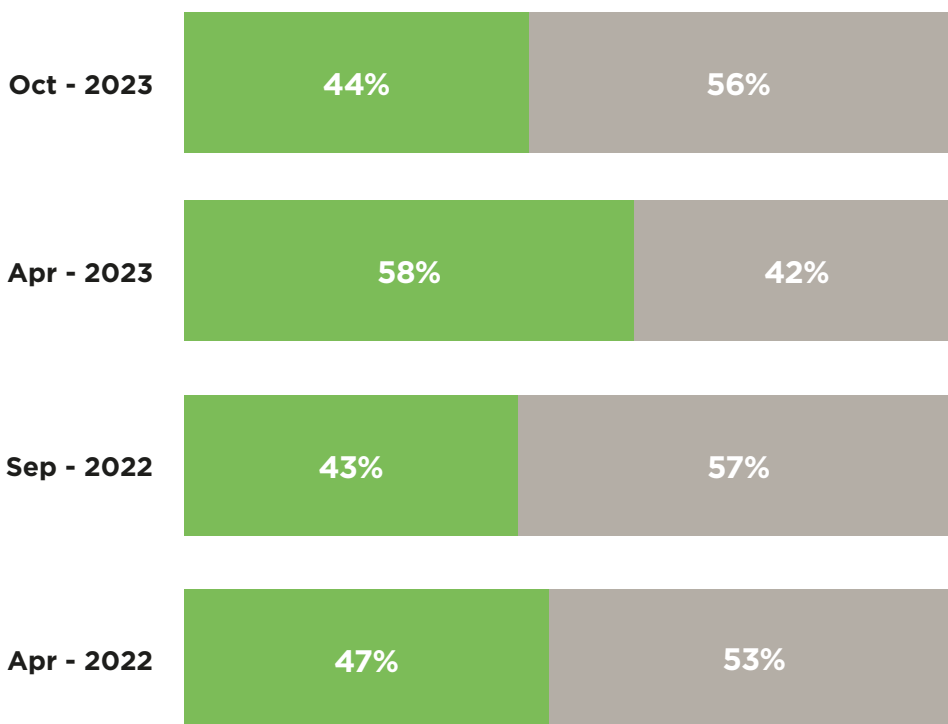
We have a net-zero strategy and have already developed products specifically with carbon neutrality in mind. Moreover, all our new product development is made with carbon footprint in mind. KPIs are set also by the company to target net-zero globally.

Majority of influence is in our supply chain of products and outwith our control. Our customers behaviour needs to change before we can drive reduction.

Green increased from 29% in April 23 (n=63 those that have a strategy in place)

17. Less companies report having accelerated Net Zero plans compared to the last survey.

Q: Have you accelerated your (net zero) plans in the last year?



Q: How are you tracking progress?

A central department are working on this specifically, tracking progress and providing regular updates to senior management.

Established CO2t baseline and will work towards and measure progress each year offering customers insights into their footprint/emissions as a result of existing purchases.

KPIs connected with our ISO 14001

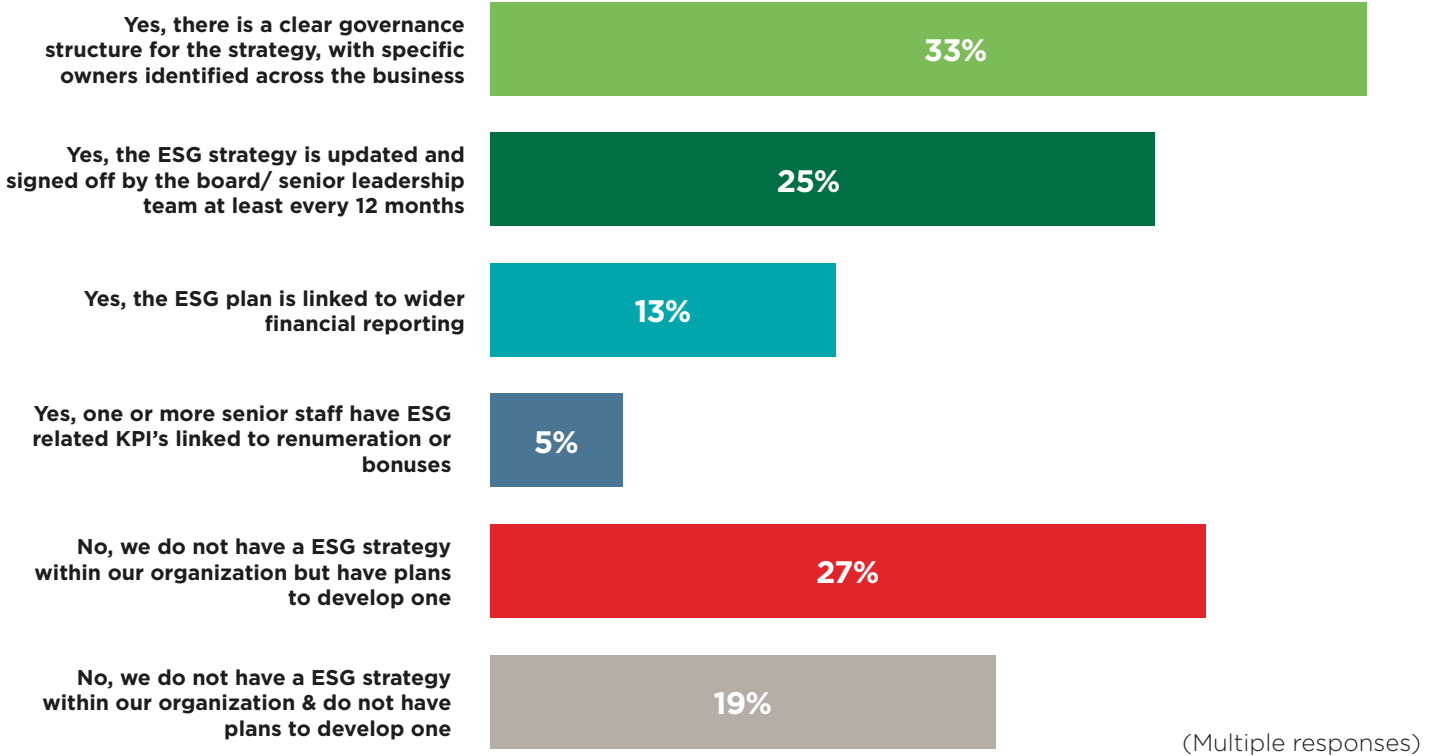
We follow a procedure and collect data to establish baseline emissions. Carbon footprints for Scope 1, 2 and 3 emissions are calculated and reported annually, and demonstrate a reduction in carbon intensity.

Yes No

(n=63 those that have a strategy in place)

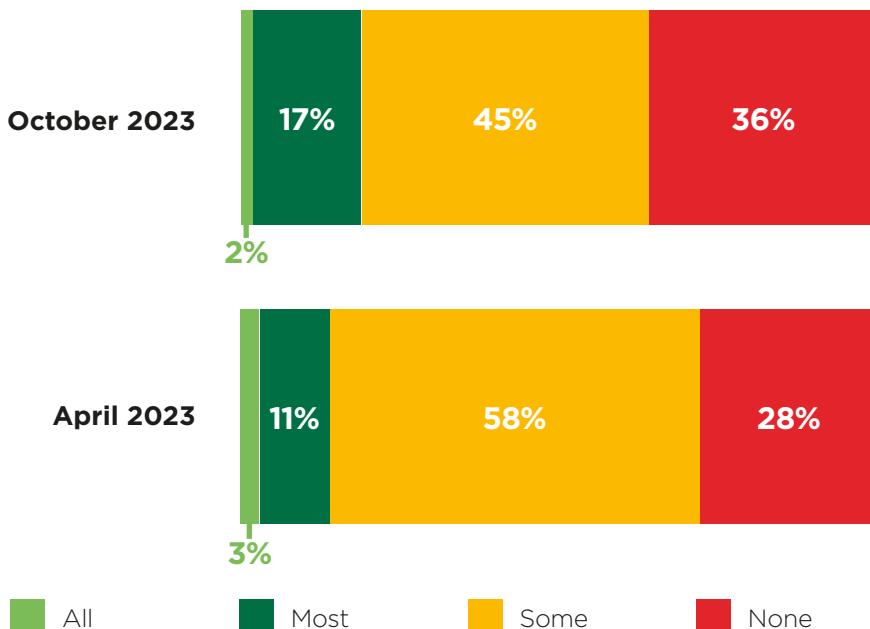
18. There was a spectrum of responses when companies were asked about their ESG strategies- very similar to the Apr 23 data.

Q: Do you have an Environmental Social Governance (ESG) strategy within your organisation, that has board/senior leadership level support?



19. Fewer customers requiring validation of suppliers' commitment to net zero/ESG strategies since last survey.

Q: To what extent are your customers requesting validation of your approach to net zero / other ESG commitments?



Q: Please specify what level of evidence / assurance customers are seeking?

Accreditations, audits and site visits regularly requested.

Clients request access to our policy documentation for review & comment on a regular and often periodic basis.

Independent audits

Most need to have an understanding but not necessarily formal accreditation or audit.

Questionnaires

Specific information relating to emissions as a result of their buying behaviours

Written and document proof



Energy Transition Case Study - Boskalis Subsea Services



Tell us a little bit about your business?

Boskalis Subsea Services Limited is a leading provider of vessel based subsea services and associated project management and engineering. With the largest fleet of Diving Support Vessels in the North Sea, and access to a global pool of Support Vessels, we have built an enviable reputation for safe execution of subsea projects on behalf of our client base. As part of the wider Boskalis groups' Offshore Energy division, we are at the forefront of improving our sustainability performance, helping our clients to benefit from the Energy Transition goals which we have set ourselves as a world leading contractor.

Can you tell us about the transition journey your business has been on?

As a group, Boskalis have always had a focus on the operational efficiency of our fleet, this is driven not only by our own targets to reduce emissions and costs, but also by marine legislation. Over the last 3 to 4 years, we have developed a sustainability and efficiency team, who focus on upcoming regulation changes, how our fleet operates and where we can make improvements. Maress, a tool we implemented, is a platform that gathers data from each

vessel daily, through reporting and sensors, to give us a clear picture of the performance of each vessel. This system takes fuel consumption, vessel location and operational data, providing a comparison of our efficiency in each operating mode. As well as the data, this gives us a tool to compare vessel operations and learn how they perform and where we can make improvements.

For Boskalis Subsea Services vessels, we have planned major vessel upgrades during winter 2023 that will see a step up in efficiency performance. BOKA Atlantis will be the first to install a hybrid battery system, as well as upgrading the DP (Dynamic Positioning) system and power management. We expect a reduction in fuel consumption, therefore emissions, and around 20% improvement in operating modes. Further to this, the upgrades will allow us to easily connect to shore power systems and will also drastically reduce the maintenance of our main engines, saving costs but also reducing the carbon footprint. Three other vessels in the Subsea fleet will see the same improvements over the upcoming winter period, meaning we will make a big step forward in enhancing vessel efficiency.

What advice would you give to businesses embarking on a similar transition journey?

Implementing these upgrades alone would not guarantee success in isolation, procurement of equipment off the shelf is an option, but to make best use of these upgrades we have worked closely with our supply chain. Ensuring we did not just bolt on the latest technology available, we investigated and discussed with our client base how each change would impact their operations. Designing and implementing an effective battery system for a DSV is an extensive exercise. Ensuring we are compliant with operational requirements, so what we install can be used to the best effect whilst working is where the value is delivered.

Another important aspect of pushing towards net zero goals was buy-in from stakeholders, not just clients but our staff too. Engaging with our onshore and offshore support teams, to agree our goals and how we achieve them supports any transitional changes we make. This internal knowledge share and collaborative approach means our teams understand the changes, are bought in and committed to continuous improvement.

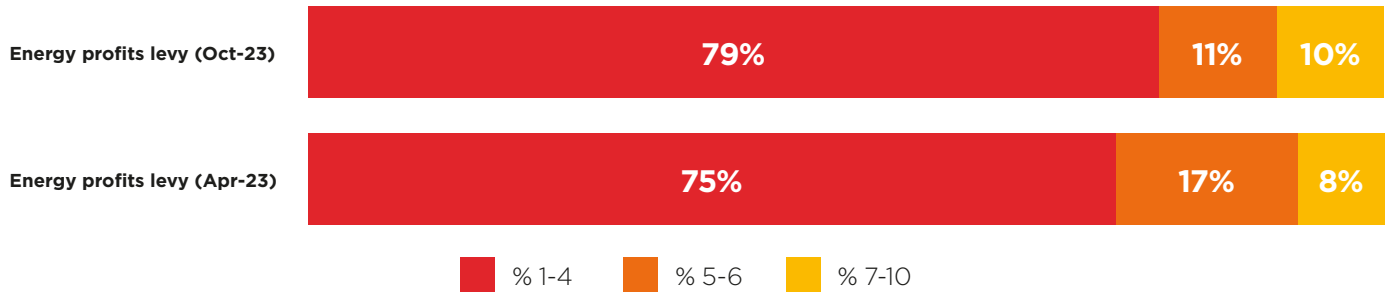
Government policy and regulatory environment talking points



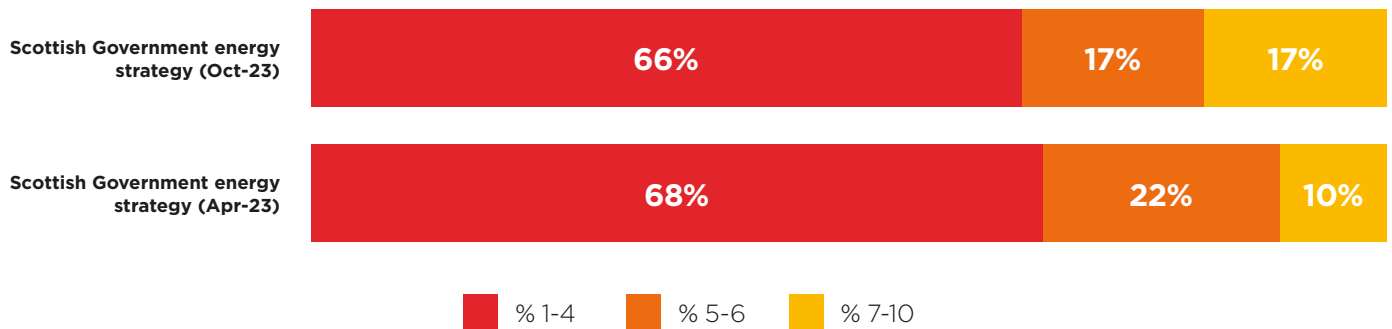
- Increasing evidence that EPL is having the most negative impact on energy sector/ investor confidence.
- Scottish Government energy strategy still having a negative impact on industry sentiment.
- Greater clarity over which political parties offering the best policies for domestic energy security. Conservatives up from 20% in April. Still high overall disaffection rating.
- Over half of businesses stating a view, believe that none of our political parties is delivering the best policies for energy transition. However, small increases in positive responses for Conservative, Labour and SNP v April data.
- Respondents firmly believe the right conditions and incentives to give the private sector the confidence to invest in new energy technologies are not being delivered by our governments.

20. Increasing evidence that EPL is having the most negative impact on energy sector/investor confidence.

Q: On scale of 1 to 10, where 1 is very negative and 10 is very positive, please rate the impact of the following on energy sector / investor confidence. (October 23)

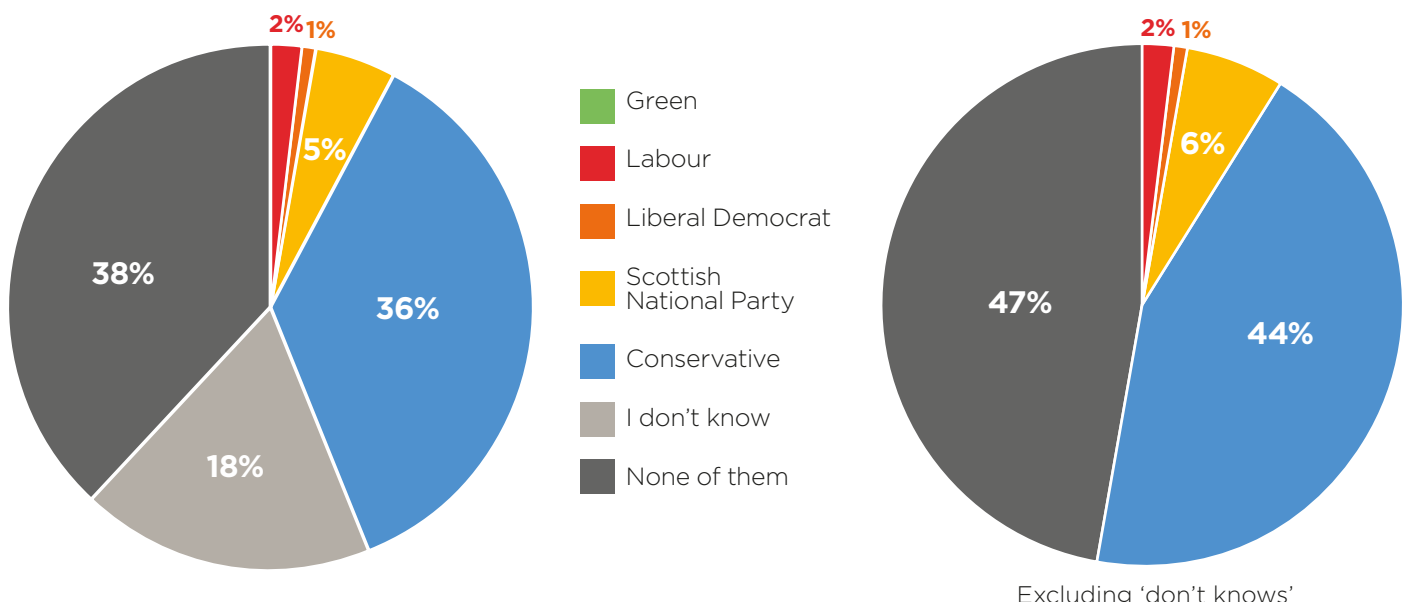


20. Scottish Government energy strategy still having a negative impact on industry sentiment.



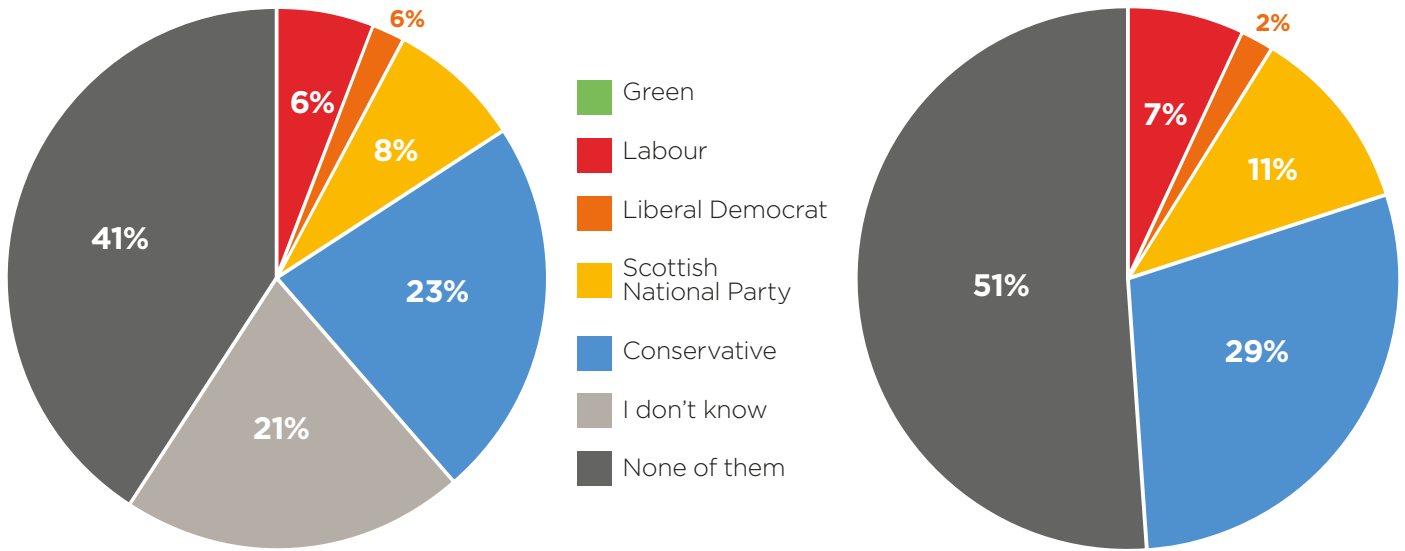
21. Greater clarity over which political parties offering the best policies for domestic energy security. Conservatives up from 20% in April. Still high overall disaffection rating.

Q: Which political party do you believe is delivering the best policies for domestic energy security?



22. Over half of businesses stating a view, believe that none of our political parties is delivering the best policies for energy transition. However, small increases in positive responses for Conservative, Labour and SNP v April data.

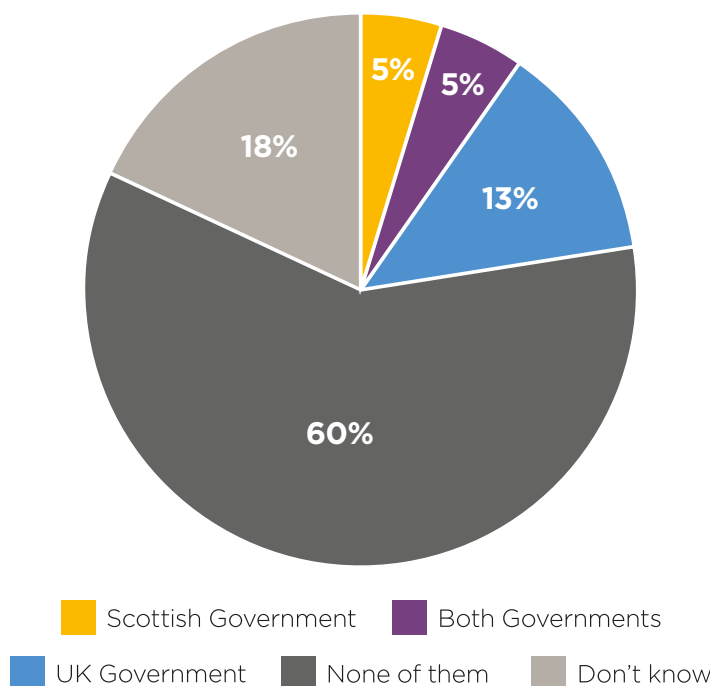
Q: Which political party do you believe is delivering the best policies for energy transition?



Excluding 'don't knows'

23. Respondents firmly believe the right conditions and incentives to give the private sector the confidence to invest in new energy technologies are not being delivered by our governments.

Q: Who do you believe has put in place the right conditions and incentives to give the private sector the necessary confidence to invest in new energy technologies?



Q: Why do you say that and what additional interventions do you believe would make a positive difference?

A decoupling of the price of Hydrogen from the price of Natural gas is needed in order to ensure that Hydrogen can develop in line with the learning curve. A Carbon Tax coupled with a H2 subsidy would help to achieve this and give both producers and consumers confidence in the new energies market.

Direct support for commercialisation of new products. Use of local content clauses in contracts. Direct transport links from Scotland to Europe. Better financial support to allow households and industry to switch to green power.

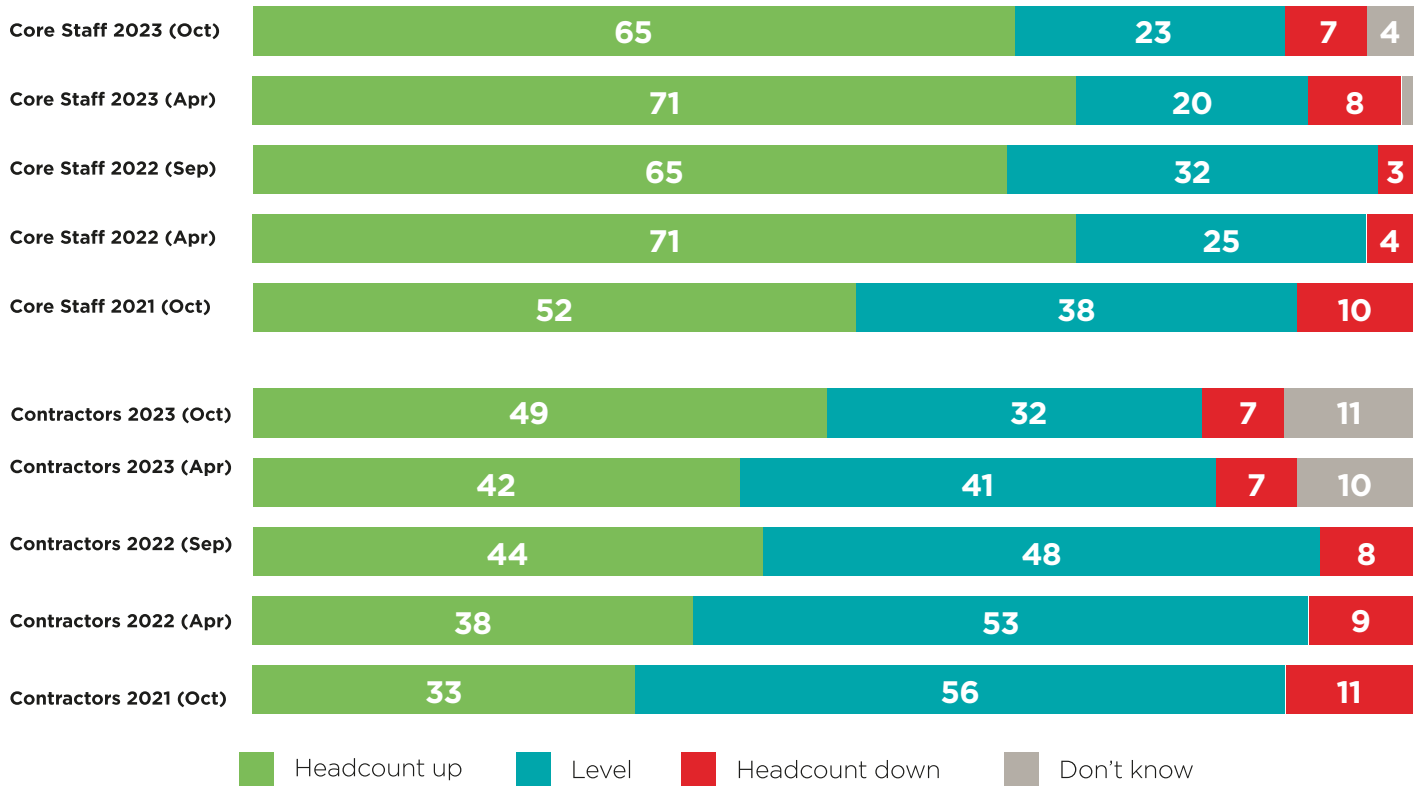
Getting an effective business model for Hydrogen implemented in the UK with associated funding is essential to stimulate the market. Without this framework there is no commercial to incentivise private sector investment.

Recruitment and skills gaps talking points

- Notwithstanding recruitment challenges, headcount still forecast to rise over next three years but with slight shift towards contactors rather than core staff.
- Continued significant increases in % of businesses experiencing difficulty in recruiting in the past 12 months.
- Specific challenges in recruiting skilled trades, technical and clerical roles.
- Similar levels of confidence in securing the necessary traditional and new skills to deliver on long term objectives to last survey but still much lower than April 22 position.
- Skills shortages being exacerbated by staff leaving the sector and high levels of (early) retirement.
- Increasing leakage of talent to overseas roles but decreases in numbers moving between companies or going self-employed.

24. Notwithstanding recruitment challenges, headcount still forecast to rise over next three years but with slight shift towards contactors rather than core staff.

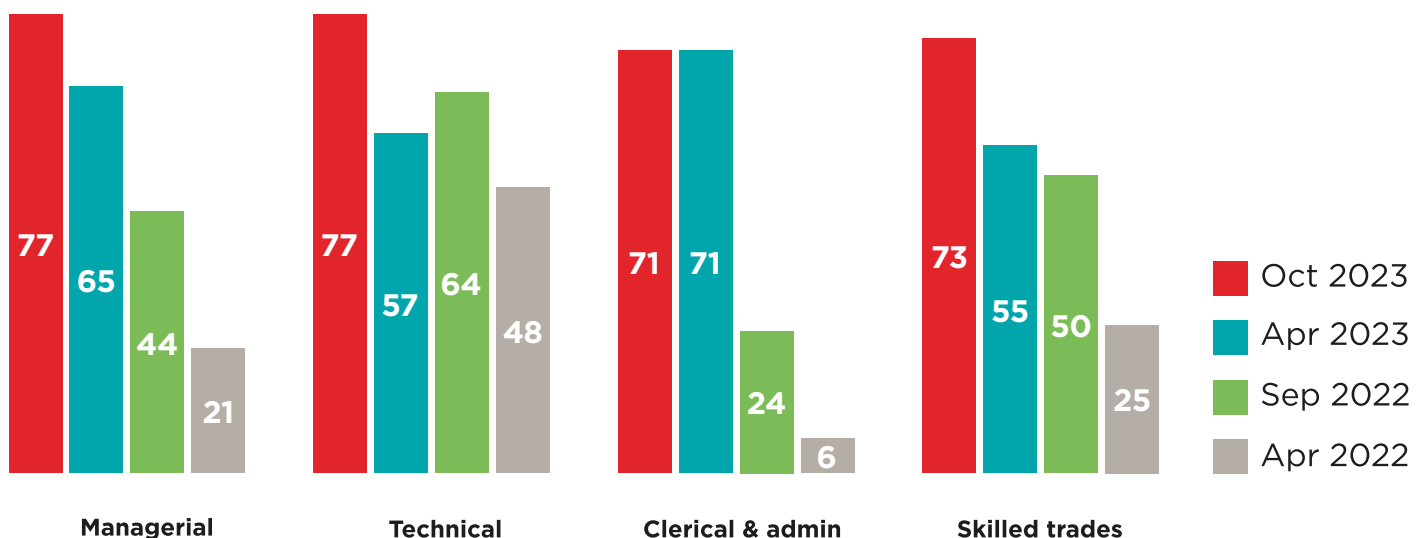
Q: How do you expect your headcount to change over the **next 3 years** for...



(% sector view of headcount change over the next 3 years)

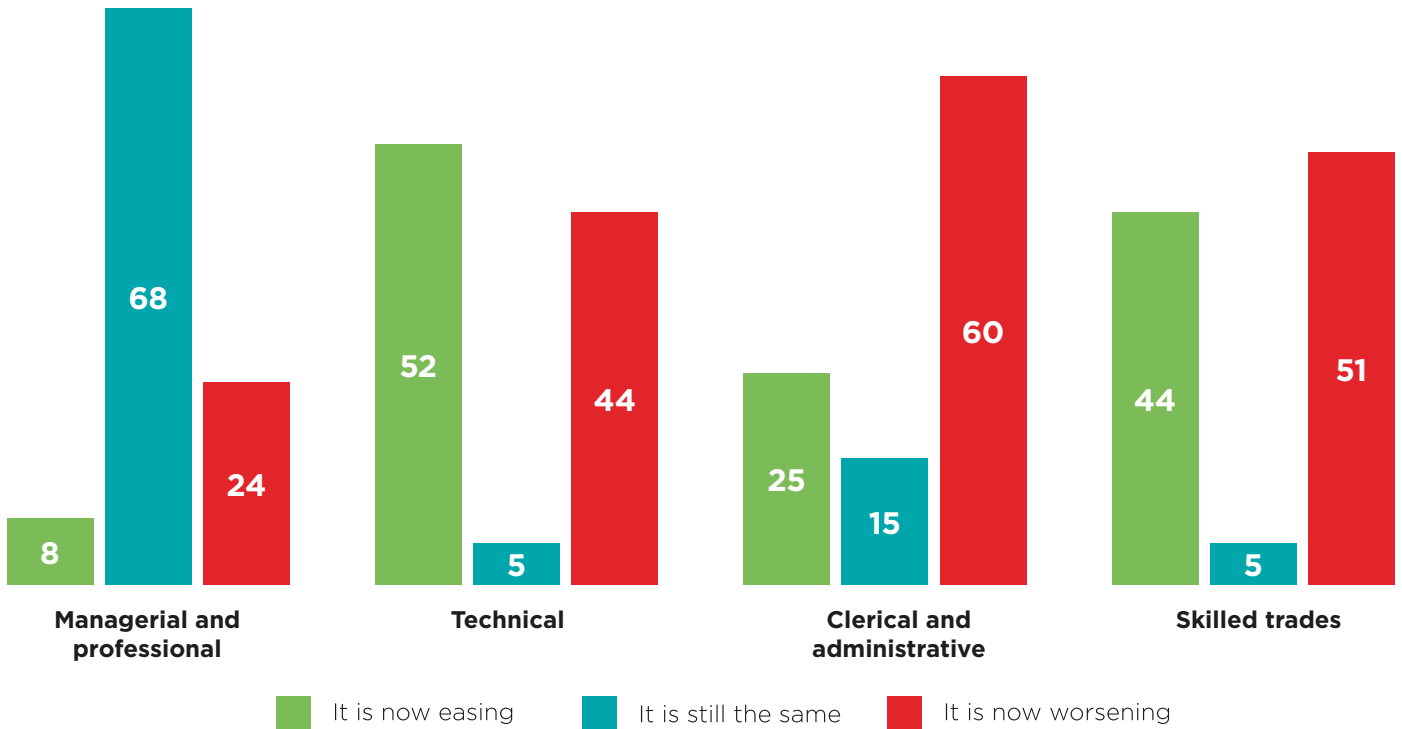
25. Continued significant increases in % of businesses experiencing difficulty in recruiting in the past 12 months.

Q: Have you experienced any difficulties in recruiting any of the following roles in the past 12 months? (% answering yes)



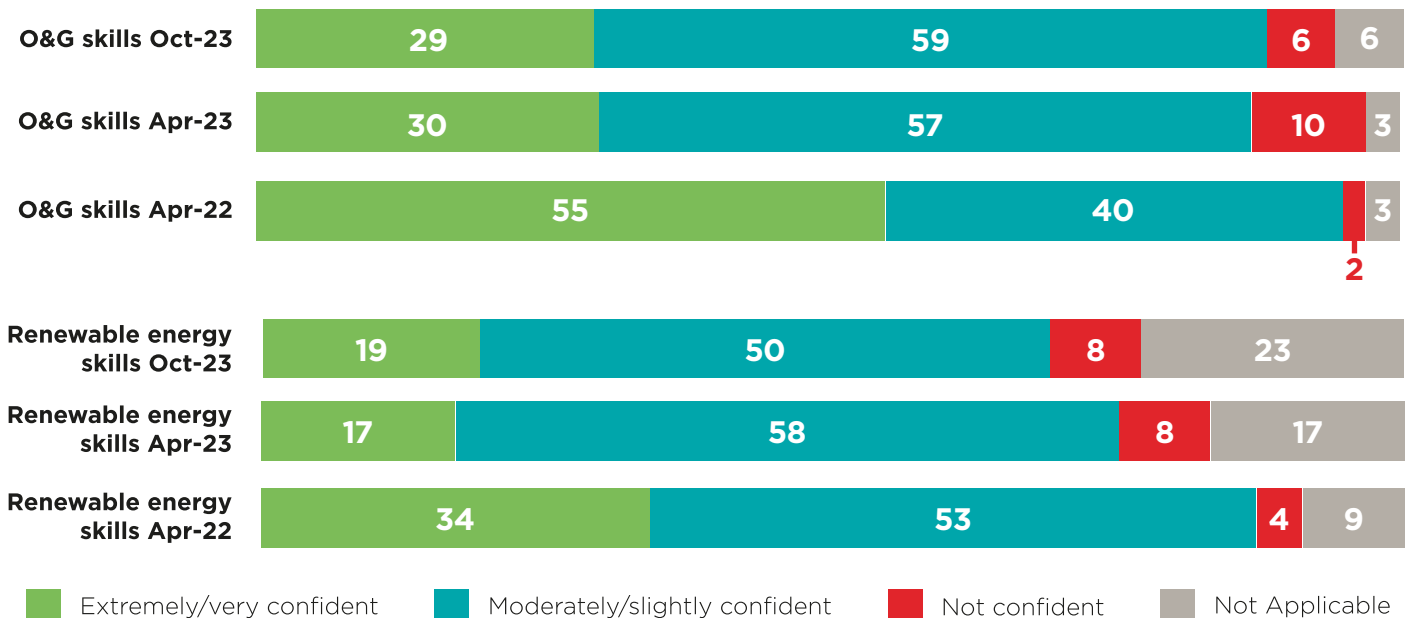
26. Specific challenges in recruiting skilled trades, technical and clerical roles.

Q: Have you experienced any difficulties in recruiting any of the following roles in the past 12 months and what is the status now?



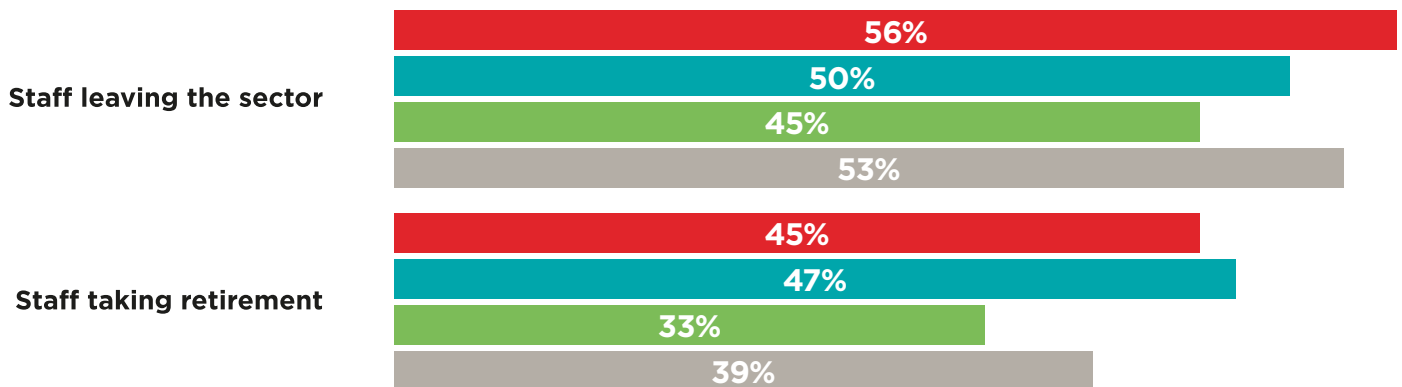
27. Similar levels of confidence in securing the necessary traditional and new skills to deliver on long term objectives to last survey but still much lower than April 22 position.

Q: How confident are you that your businesses will be able to secure the skills you need to deliver your longer-term strategic objectives?

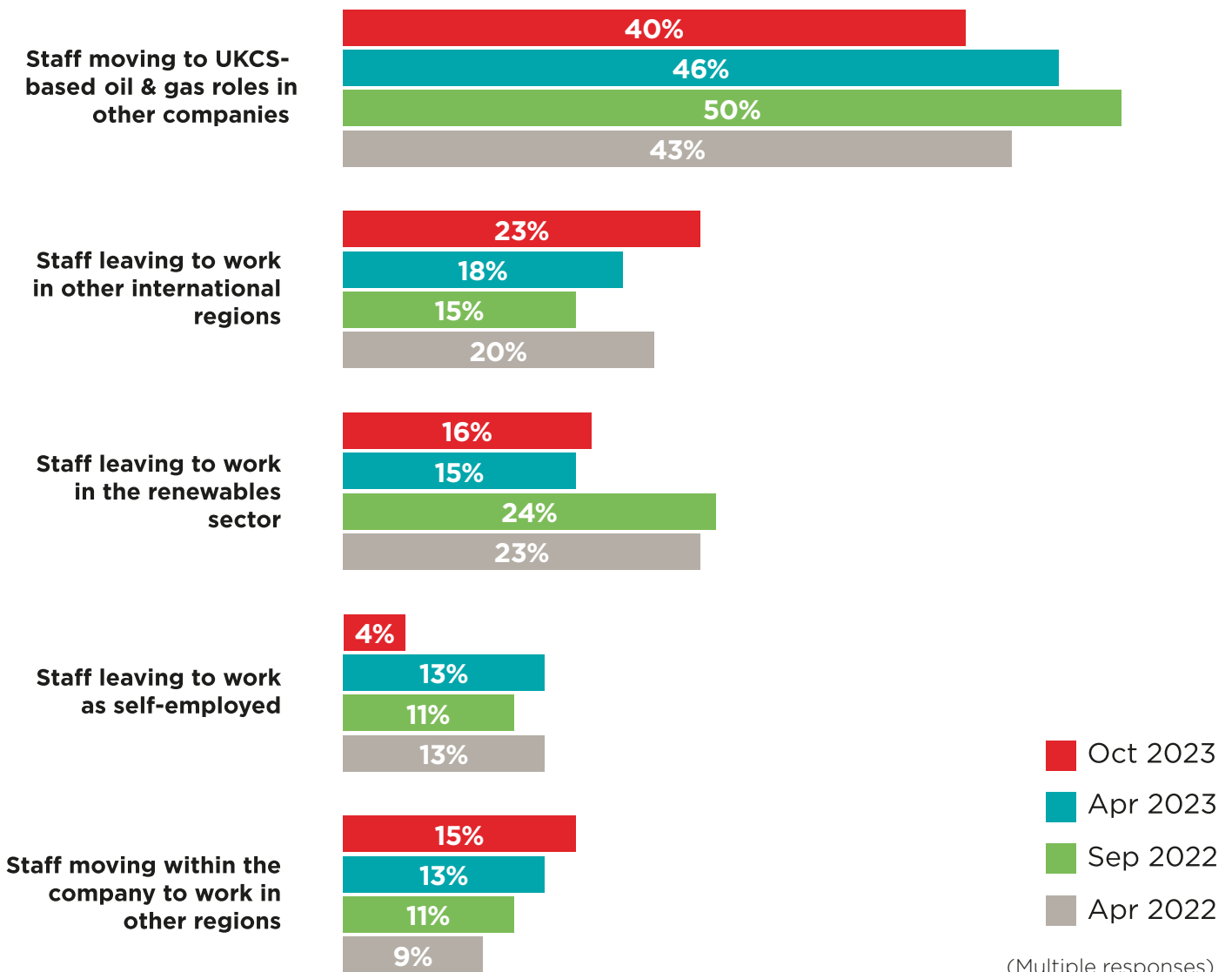


28. Skills shortages being exacerbated by staff leaving the sector and high levels of (early) retirement.

Q: Are you losing more UK-based qualified staff than usual to any of the following?



28. Increasing leakage of talent to overseas roles but decreases in numbers moving between companies or going self-employed



Chamber viewpoint

This biannual survey started life 19 years ago and despite the traditionally cyclical nature of the industry, over the last two editions we have seen some quite remarkable results highlighting both the huge challenges and opportunities facing the sector as we look to plot our energy transition path.

The key themes emerging are the five Ps

Policy | Profits | People | Pace | Place

Significant headwinds remain, not least with the EPL clearly responsible for deals being scrapped, investment deferred or moved and jobs lost. This is particularly challenging for our independent operators. To be clear, the price floor 'concession' was a meaningless gesture as it currently stands.

As a result, confidence in the future of UKCS operations remains depressed, with only a small uptick since the Spring.

There remains frustration about the short-term nature of the statements being made by many politicians in relation to energy that demonise any company or anyone involved in oil & gas. There is a real sense that these politicians and their advisors simply don't 'get it' (or choose not to) and policy is being shaped by a very vocal but small minority.

Those in the industry we regularly engage with are keen to see long-term thinking that is cognisant of the complexity of matters surrounding demand, supply, domestic energy security and the timing of the transition. This has to be devoid of partisan politics and any narrative that suggests there is denial from the sector about the climate emergency and the imperative for the world to act.

The message is clear. For as long as it is needed, if the alternative is importing oil and gas from overseas at much higher carbon cost, the UK must favour domestic production.

However, since May we have seen positive progress on a number of fronts for both the industry and the North-east Scotland region.

The recent King's Speech announcement of annual licencing rounds provides a vital confidence boost for the sector and the firms supporting it. But with the caveat that if activity in the North Sea remains financially unattractive, it will be an empty gesture.

At the time of writing, we are just days away from welcoming Sir Keir Starmer and senior shadow cabinet colleagues to Aberdeen to discuss future energy policy and ask them to confirm GB Energy will be headquartered in Aberdeen if they are elected.

Although there continues to be a delay to the publication of Scottish Government's energy strategy, there are some signs of encouragement to be taken that it will better reflect the realities of current domestic energy supply and demand factors and the huge significance the sector has in the nation's economy. In a letter to the Chamber of Commerce, Humza Yousaf said: "...we do not want to be importing oil and gas from elsewhere with a greater carbon footprint."

We are seeing real signs of activity that backs up the ambition that the Aberdeen region will become a globally significant player in the development and delivery of low carbon energy solutions. Helped by the welcome (albeit overdue) backing for Acorn CCUS from Westminster, investment in grid capacity, the strong progress being made with Energy Transition Zone and many other initiatives. This is reflected in increasing confidence levels in question 13.

And the award by UK and Scottish Government of Investment Zone status to the North-east will help accelerate this and the wider sector diversification activity at the heart of the City Region Deal and Regional Economic Strategy.

The survey revealed mixed messages around the pace of transition. Respondents report a 3 percentage point shift in their current activities towards low carbon activities since the last survey with the expectation being that 50% of their work will be outside of traditional oil and gas by 2030. Mainly driven by offshore wind, CCUS and hydrogen.

Anecdotally, however there is a feeling within industry that the pace of this could stall, due to more oil and gas related projects which offer greater certainty and profit margin.

Concerns around visibility of projects, rising costs, profitability and return on investment for renewables work remain the biggest barrier to diversification for firms with lack of pace around licencing, planning and related matters also being central to this.

To deliver all of this the sector needs people and the vast majority of firms reported difficulty recruiting staff and raised concerns that the problem may not yet have peaked. Specifically finding the right people for skilled, technical and clerical roles has got even more difficult since the last survey.

Although patchy across the sector, the majority of respondents believe that their headcount will need to rise over the next few years to enable them to deliver required work- and they forecast this will be achieved through a mix of staff and contract workers.

However, the growing risk of a skills shortage is being exacerbated by staff leaving the sector, high levels of early retirement and difficulties in attracting the next generation of the workforce. There is international competition for talent, but also growing competition domestically. One recent example given was of 2,500 scaffolders being hired for a nuclear project in England.

Traditionally, Aberdeen has been a magnet for the very best people but, the low carbon energy future is likely to be more location agnostic meaning firms in the North-east will need to work harder to sell the location and lifestyle.

In summary, there are huge opportunities but the economic warning signals remain clear. Get the timing of the transition wrong and this will lead to tens of thousands of job losses and the associated destruction of communities we saw in the 1980s. Something all parties say they will not allow to happen again- but the policies of some risk sleepwalking towards a repeat, with the biggest impact this time in the North-east of Scotland.



MIIU

Russell Borthwick
Chief Executive,
Aberdeen & Grampian
Chamber of Commerce

Policy recommendations and industry actions

1) Too important to be a political football

The evidence of ET38, and that of previous editions of this survey, point to a real and pressing need to find a solution to political and regulatory uncertainty. Adverse government policy, political narrative and the perception of a worsening regulatory environment, is resulting in a sustained lack of confidence in the future viability of doing business in the UKCS.

That degree of uncertainty in the future, which has had a significant knock-on impact on investment decisions and is already costing jobs, is unlikely to dissipate in the months leading up to a UK General Election or in the early months of a new government being formed. And time is of the essence.

The announcement in the King's Speech of an Offshore Petroleum Licensing Bill has a potential dual purpose. Firstly, it recognises that the UKCS will be at the heart of providing energy security, driving economic growth and accelerating energy transition for the whole of the UK with safeguards in place through independent assessment being made according to strict tests on energy security and domestic energy requirements.

Secondly, the predictability afforded by legislated-for annual licensing rounds is designed to give the energy sector more confidence over medium to long term.

But to be truly effective these matters should be administered by an independent body, developing recommendations which could command cross-party consensus and insulate the sector from the upset and uncertainty of major policy switches according to short-term political cycles. A kind of Bank of England for energy policy.

2) Remove (or at least reform) the Energy Profits Levy

We welcome the UK Government's commitment to continued oil and gas production in the North Sea to enhance our domestic energy security. However, there is compelling evidence that the Energy Profits Levy (EPL) is having a detrimental impact on investment in the UKCS and thus undermining the government's policy goals.

This and other editions of our survey demonstrate that confidence in the UK sector remains at historically low levels and clearly deviating from other basins. There is clear evidence from those in the energy sector that discretionary capital is moving elsewhere due to the severity and duration of the tax. The experience of operators also suggests that under traditional reserve-based lending mechanisms, the UKCS has become "uninvestible" for many.

The introduction of a price floor, though welcome, has not made a practical difference. The terms of this state that the tax will be disapplied if prices return to an average of both \$71.40 per barrel for oil and £0.54 per therm for gas, for two consecutive quarters. An extremely unlikely scenario meaning that it will remain in place until March 2028.

The 20-year average figure used to set the current price floor is not inflation adjusted. If it was, the 20-year average would be circa \$94 per barrel.

"Excess profits" are simply not being made. In each of the last four surveys we have seen a reducing number of firms expecting revenue growth. Add this to increasing costs of doing business and only around half expect profits to grow in 2024.

We urge the UK Government to remove the Energy Profits Levy to secure the investment required in the energy sector to enhance our energy security today, secure jobs and help fund the new technologies of tomorrow.

If the EPL is to remain until 2028, as per current government policy, then two key changes are recommended. First, the investment allowance attached to the EPL must be retained and widened to include low carbon related activities that will help accelerate the energy transition. Second, the trigger price for the levy to fall away needs to be adjusted for inflation.

3) Change the narrative

The sector is clearly being demonised from many sources and this is reducing future confidence, driving away the investment needed and acting as a barrier to the future workforce choosing the energy sector as a career destination of choice.

The publicly held energy future debate is largely being framed by the position of a noisy minority of climate activists and the challenge for the industry, our governments and politicians of all hues is to create a more balanced view.

This will set the tone from the top in terms of investor confidence and the confirmation that the energy sector is one where young people can make a difference, be part of the solution and have a long, fulfilling and prosperous career.

The prevalent discourse is impacting lending policies and government agencies are no longer supporting the export activities of companies whose portfolio of activity encompasses oil and gas. This has to change, otherwise the UK will be at a significant disadvantage in a globally competitive environment.

There are challenges for industry too in terms of creating the conditions to attract and retain staff. What can firms do to instil good cultures and workplace practices that make people want to make long term careers for themselves in energy?

The things that make Aberdeen a prime location for becoming a recognised renewable energy hub is largely human capital, supply chain critical mass and its 'hub' status with all services, technologies and people condensed in the same region.

With the low carbon energy future likely to be more location agnostic, collectively, this region has a job to do to tell the story of a place that people should come to live, work, build careers and businesses; one that offers exceptional quality of life.

4) Up the pace

Concerns around visibility of projects, rising costs, profitability and return on investment for renewables work remain the biggest barrier to diversification for firms with lack of pace around licencing, planning and related matters being central to this.

The speed at which renewable projects can proceed, due to the requirement for multiple consents, is frequently raised as an issue. Tangible examples of similar project progressing more quickly in other parts of the world risks Scotland and the UK being left behind.

Planning processes must be simplified and sufficient resources provided to the responsible agencies to inject the necessary pace.

About the survey

The 38th AGCC Energy Transition (previously Oil & Gas) survey is supported by KPMG, our partner since 2017 and Energy Transition Zone. The report has become established as a vital source of industry intelligence for businesses, policy makers and the media and the feedback gathered is instrumental in ensuring that the industry's voice is heard, enabling us to set out the practical challenges faced by the sector and ensure the necessary policy interventions are put in place.

Research approach

The online survey was updated with partner input to reflect the current environment and was live between 4th September and 2nd October 2023. Direct approaches were made to previous responders, sponsor networks, other trade bodies and followed up by telephone calls to key contacts. The survey was promoted more widely through Chamber news channels and in other media. 111 businesses (10 operators and 101 contractors/service companies), collectively employing over 56,000 people in the UK, completed the survey. The survey was managed by Research Chamber, Aberdeen & Grampian Chamber of Commerce's in house commercial research arm.

Thank you

The Research Chamber/Aberdeen & Grampian Chamber of Commerce would like to thank all energy businesses who responded to this survey. Without their voice, we could not have delivered this research. Your continued support is invaluable to us in meeting our commitment to bring you independent and impartial insights into the key issues facing your business and the wider sector.

We would also like to thank our partners, KPMG UK and ETZ Ltd for their ongoing support of this strategically important research work, helping the sector's voice be heard.

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Contact us at researchchamber@agcc.co.uk