Energy Report 2019

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RE-Source
European platform for corporate renewable energy sourcing

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BayWa r.e.

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Energy Report 2019

Foreword by Paula Abreu Marques,
Head of Unit Renewables and CCS Policy,
Directorate-General for Energy, European Commission

When the European Commission proposed its "Clean energy for all Europeans" package in 2016, providing a fair deal for consumers and global leadership in renewables were two of three pillars on which the proposal was based. At the time, there were several reasons to put renewables and the consumer at the centre for the next regulatory framework: public acceptance and civil society engagement in renewable energy and energy efficiency projects, is needed to make the energy transition happen. An energy market fit for renewables drives down energy prices for consumers, provides the consumer with more choice, and allows for a more pro-active role by producing their own energy. It also provides flexibility and the opportunity to respond to price signals. Finally, consumer engagement would be a way to mobilise the necessary private capital for the energy transition.

Fast forwarding to 2019, this Energy Report confirms that placing renewables and the consumer at the centre of the energy transition was the right choice. Today, renewable energy is not only providing a fair deal for consumers, it is actually providing cost competitiveness. For European companies, corporate sourcing of renewables has been increasing steadily since 2015, with some encouraging signs of new markets for corporate sourcing opening up in 2018. The good news from this report is twofold. European companies see themselves as leaders in the renewable energy transition and they are making the choice for renewables primarily for economic reasons, alongside their determination to reduce environmental footprint.

This Energy Report is also very timely. European Member States are in the midst of developing their final national energy and climate plans, which are due by the end of 2019. In these plans, one of their tasks is to report upon existing barriers for and measures to facilitate corporate renewable power purchase agreements. The six country specific analyses in this report are not only valuable feedback for the Member States concerned, but also provide a useful source of information for the other Member States that are equally exploring ways to facilitate a more pro-active role for their companies to source renewable energy.

Finally, I can only concur with the final words in this report that corporate sourcing of renewable power is only the first step in the right direction. With the discussion on the European energy system for 2050 in full swing, we already have to start thinking about how we can extend companies' roles to promote renewables in transport, heating and cooling, and across the full supply chain.

1. What you need to know about the Energy Report 2019

About the Energy Report series

The Energy Report series was launched in 2015 by BayWa r.e. in order to find out more about energy consumers' support for the energy transition. The first edition focused on private households in Germany and provided a comprehensive picture on the attitudes of Germans towards the energy transition. The second edition, published in 2017, focused on German companies. A total of 1,000 decision-makers from small, medium-sized and large companies were interviewed. The results made it clear that the corporate decision-makers supported the energy transition in Germany in principle, but the implementation within German companies was still rather hesitant.

In order to track evolving attitudes and see how they vary across Europe, the current issue of the Energy Report surveys corporations from six key energy markets in Europe regarding their attitudes towards the adoption of renewable energy. It is the first systematic, quantitative opinion survey of its kind that has been carried out among 1,200 decision-makers in medium-sized and large companies. It covers the UK, Germany, Italy, Spain, France and Poland. It provides meaningful and comparable insights into their attitudes towards the energy transition, policy issues, sustainability targets and their plans to source renewable energy over the next five years.

Can corporations truly become the driving force of the renewable transition?

While the Intergovernmental Panel on Climate Change (IPCC) released its starkest warning yet on the global impact of failing to limit global warming to 1.5°C in October 2018, the renewable energy transition in Europe is at a crossroads.

It is evolving from being subsidy-driven to market-driven. A structural change in which corporations become the driving force. The commercial and industrial sector alone accounts for two thirds of the world's end-of-use electricity.[1] Indeed, it is no overstatement that if we are to stand any chance of averting the worst effects of global climate change, it will be corporations and not governments which can make a crucial difference.

But are corporations convinced? Do they recognise their fundamental role in driving the renewable transition? What progress has been made and what factors are holding corporations back? Do they see an opportunity or a challenge? The latest BayWa r.e. Energy Report provides answers to these questions by analysing the views of corporations across six key European countries on how they view renewable energy.

The evolving role of European corporations

The use of renewables in the EU has increased significantly in recent years. Their share in energy consumption doubled from around 8.5 per cent in 2004 to 17.0 per cent in 2016.[2] An important factor in this trend has been the political will in Europe to set and pursue important climate targets set by the EU.

As a result, most of this past growth was driven by politically determined subsidy schemes, which provided investment opportunities for financial investors and, to a lesser extent, the final consumer. Only in more recent years has the energy consuming industry contributed a small, but growing, share to the shift to cleaner power by directly obtaining increasing amounts of its energy from renewable sources.

In some countries, renewables have already become an attractive form of power supply or investment in self-consumption for corporations, making it possible to reduce energy costs, hedge against the risk of increasing energy prices and meet sustainability objectives.

[1] *IRENA: https://www.irena.org/newsroom/pressreleases/2018/May/Corporate-Sourcing-of-Renewables-Growing-Taking-Place-in-75-Countries*
[2] *Eurostat: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Renewable_energy_statistics/de#Wichtigste_statistische_Ergebnisse*

Many corporations see the benefits of renewables but are held back by bureaucracy or barriers relating to investment costs and payback. As an industry, we must ensure that a range of renewable supply options, from PPAs to own installations, are available and meet the needs of corporations. We must also work with governments to help pave the way for an improved regulatory framework.

Matthias Taft, Member of the Board responsible for the energy business, BayWa AG

To reach the next level and truly drive the decarbonisation of our economy, however, companies must take an even more active role by leading the investment in renewable energy and increasingly replacing subsidy driven schemes with market-based contracts and solutions.

To support this evolution, the RE100 network was launched at Climate Week NYC 2014. The global initiative aims to accelerate the transformation of the global energy market and aid the transition to a low carbon economy. Just over 150 RE100 companies have committed to sourcing 100 per cent of their global electricity from renewable sources by a specified year.

But this is just the start and there is much work ahead if the worst predictions of the IPCC are to be avoided. The key findings of the Energy Report 2019 show where progress has been made, where more focus is needed, and where all parties need to work more closely together.

89 %

agreed that companies play a leading role in driving the renewable energy transition.

Companies across all surveyed countries, company sizes and industries chiefly agree on the leading role they have in driving the renewable energy transition (89 per cent).

76 %

of companies surveyed felt bureaucracy is hindering additional investments in renewable energy.

At 79 per cent, frustration was highest for companies in Spain and the UK, while Germany and France recorded 73 per cent, and Poland and Italy ranged in between.

48 %

intended to invest in e-mobility.

There is a clear trend towards investments in e-mobility across all company sizes, countries and industries. Of the surveyed companies, almost half (48 per cent) intended to invest in measures that increase the use of e-mobility within the next five years.

92 %

of the companies surveyed that already use renewable energy started corporate sourcing in order to reduce their energy costs.

In deciding whether to invest in renewable energy, costs are the main factor. The most frequently mentioned reason for corporate sourcing of renewable energy was the reduction of energy costs (92 per cent), while the main barriers for investing in renewable energy were the long time for payback (44 per cent) and high investment costs (38 per cent) – investment costs were seen as a barrier by 47 per cent in Poland and 46 per cent in the UK, while in Germany this dropped to 30 per cent.

75 %

of the companies surveyed favoured investments in solar plants.

When asked about the renewable energy facilities they are planning to invest in, most of the respondents across all countries and industries favoured investments in solar plants (75 per cent), while 50 per cent are also considering investments in wind energy.

74 %

felt well informed about available renewable energy options.

Most respondents felt well informed about the renewable energy options that are available to their companies (74 per cent). This was highest in the UK (82 per cent), Italy (79 per cent) and France (74 per cent).

55 %

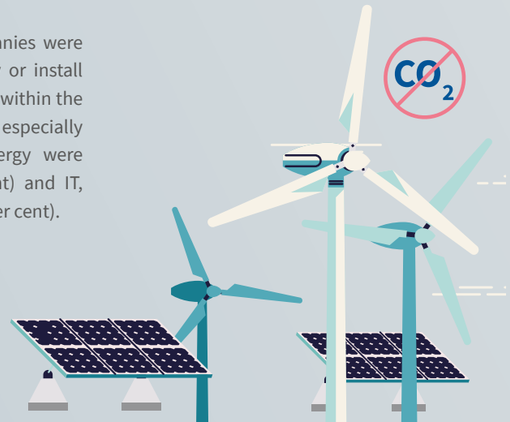
have targets regarding the reduction of greenhouse gas emissions, energy efficiency or the use of renewable energy.

More than half of the surveyed companies (55 per cent) have targets regarding the reduction of greenhouse gas emissions, energy efficiency or the use of renewable energy. While companies in Germany, the UK and France mainly focus on greenhouse gas emission targets, companies in Poland, Italy and Spain aim to increase the overall use of renewable energy.

54 %

of all surveyed companies were planning to use renewable energy.

54 per cent of all surveyed companies were planning to use renewable energy or install their own renewable energy plants within the next five years. Industries that were especially keen on sourcing renewable energy were agriculture & farming (74 per cent) and IT, telecommunications & media (66 per cent).



80 %

were convinced that companies that use renewable energy have a better public image.

More than 80 per cent of respondents were convinced that companies that use renewable energy not only have a better public image but also have a business advantage over their competitors.

70 %

of companies in Germany, the UK and France perceived the legal framework for the use of renewable energy as favourable.

Over 70 per cent of companies in Germany, the UK and France felt satisfied with the work of their governments and perceived the legal framework for the use of renewable energy as favourable. But the picture becomes less positive when looking closer. In Poland, Italy and Spain, 40 per cent of respondents were unsatisfied with the work of their governments and their legal framework.

Responsibility for energy is best internalized in companies in the UK. 70 per cent of surveyed companies already employ an internal energy manager or energy procurement manager. (Chapter 2)

For German companies, energy efficiency plays a particularly important role. They have the most ambitious goals in improving this sustainability measure. (Chapter 4)

Polish respondents saw investment costs as a highly relevant barrier. 47 per cent of the Polish companies surveyed stated that these costs would prevent their companies from sourcing renewable energy. (Chapter 3)

French companies felt particularly responsible for promoting the energy transition (95 per cent). Nonetheless, 50 per cent of French respondents did not know whether their companies were planning to invest in renewables within the next five years or said that they were not planning to invest in renewable energy. (Chapter 2 and 4)

Spanish companies were particularly dissatisfied with the uncertain national legislation in their country, but very ambitious when it comes to renewables: 76 per cent of surveyed companies in Spain are planning to increase the use of renewable energy. (Chapter 3 and 4)

Compared to all other countries, Italian companies were especially keen on planning to use renewable energy or to install their own renewable facilities. 63 per cent of surveyed companies wanted to source renewable energy within the next five years – although their satisfaction with the legal framework for renewables in Italy was below-average. (Chapter 3 and 4)

2. What European companies think about the energy transition

Governments face a number of challenges in the transition to renewables. In the wake of the controversial decision by the US government in 2018 to withdraw from the Paris Climate Agreement, European companies did not waver and continued to focus on taking action on climate change. As the results of the Energy Report clearly show, they consider the switch to renewables as crucial and remain fully committed to the energy transition.

The energy transition and corporate renewable energy engagement

A total of 89 per cent of the companies that took part in the survey believe they have to play a leading role in driving the renewable energy transition. This sentiment is shared by decision-makers in companies of all sizes from all countries.

This high level of agreement between corporate managers is driven by a number of clear underpinning factors relating to the environment, public perception and commercial considerations. When asked about the growing impact of corporate renewable energy programmes, respondents from all countries and company sizes concurred (see figure 1). Almost 90 per cent said that companies that use renewable energy have a better public image, while 80 per cent felt it also gave them a business advantage over their competitors. It was also felt (by 75 per cent) that potential employees will increasingly consider a company's 'green credentials' when choosing their employer.

Energy responsibilities and knowledge about renewables

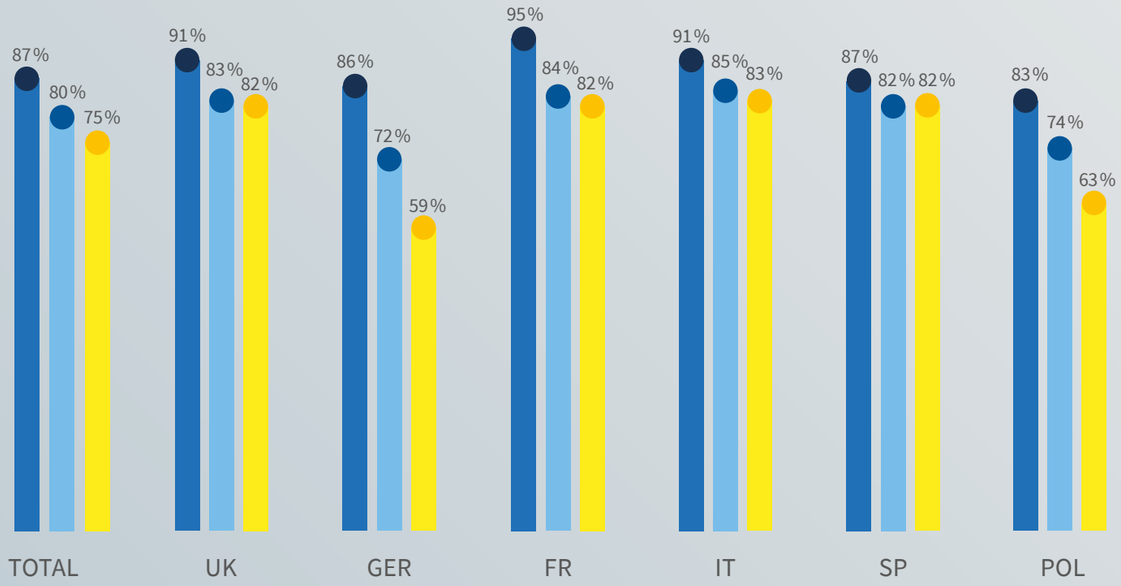
The perceived importance of the topic is also reflected in the competencies of the surveyed companies. Nearly two thirds of the companies employ internal energy managers or energy procurement managers (60 per cent) who are responsible for tasks such as monitoring energy consumption and energy efficiency, for procurement and portfolio management, as well as for planning internal generation capacities.

Among the front-runners is the UK where about 70 per cent of the surveyed companies employ an energy manager or energy procurement manager. This may be down to the fact that the energy market in the UK is highly deregulated, giving companies a variety of options to choose from when procuring energy. As UK companies are driven by reducing costs and advancing CSR goals, many of them see renewable energy as a clever way to save money while protecting the environment.

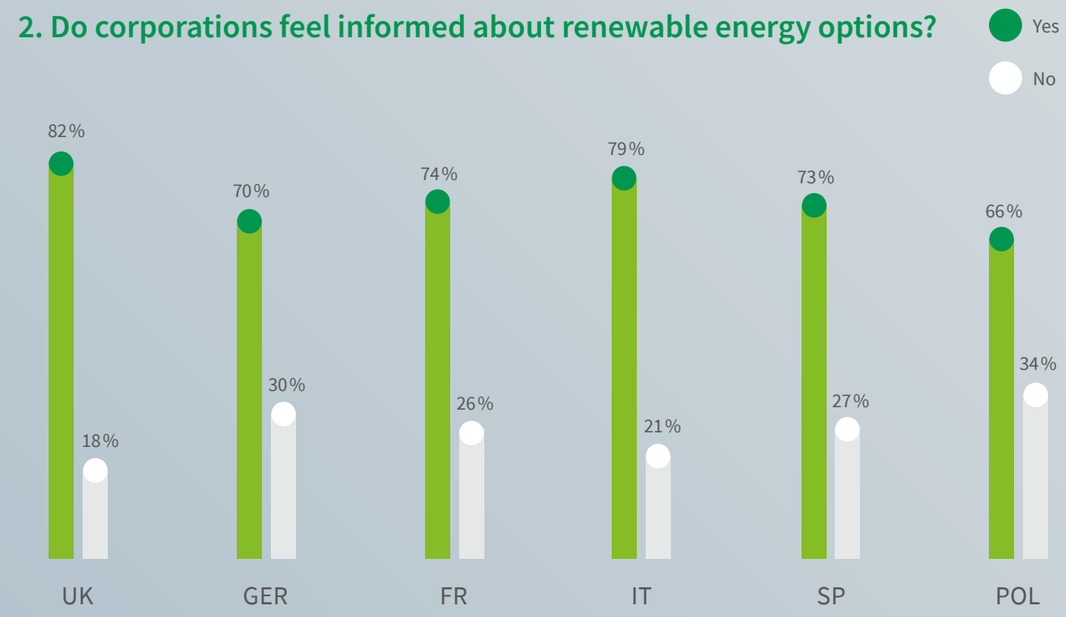
Although the majority of companies surveyed already employ energy managers, there are still gaps in knowledge when it comes to the wide range of opportunities that renewables offer. About one third of respondents felt ill-informed about the many options that renewables offer their companies (26 per cent). This is also true for respondents from Spanish companies: 27 per cent of them said they did not have sufficient information about all renewable energy options available to them (see figure 2).

One of the reasons for this gap could be the negative experiences Spanish companies have had with renewable energy policy in the past. Until recently, Spain had several renewable energy taxes which – in comparison with other European countries – not only made the use of renewables significantly more expensive for private individuals and companies, but also had a negative impact on the image of clean energy. In addition, severe penalties for failing to register facilities still lead some people to question if renewable energy might be illegal. Even though the current Spanish government have abolished some taxes, it will take some time before we see this reflected in a more positive view from companies.

1. How do corporations perceive renewable energy?



2. Do corporations feel informed about renewable energy options?



3. Motivations and obstacles for the use of renewables

Although companies are highly motivated to contribute to the energy transition, as chapter two of the Energy Report shows, they are torn between opportunities and obstacles when it comes to investing in renewables.

Motivational factors to source renewable energy

Asked about the reasons why they use renewable energy, the surveyed companies stated similar motivations, which were all driven by economic and environmental considerations (see figure 3).

The most important reason they stated was the reduction of energy costs (92 per cent). The desire to contribute to the preservation of the environment and to support sustainability targets ranked second (89 per cent). The desire to be independent from energy prices and to be able to better predict energy costs came in third with 87 per cent. Energy costs are the decisive criterion for companies from all countries and of all sizes, and industries, to use renewable energy.

How European politics affect the corporate use of renewable energy

A look at the prerequisites for the use of renewable energy in companies reveals a general satisfaction with the framework that governments provide in each respective country. About two thirds of the surveyed companies (68 per cent) were satisfied with the work of their governments and perceived the general political engagement as a step in the right direction. In Spain, Italy and Poland, however, satisfaction with the political framework was lower. About 40 per cent of surveyed companies said they were not satisfied with the political framework in their country (see figure 4).

Similar to the legal situation in Spain, the renewable energy frameworks in Italy and Poland are also transitioning. Italy, for example, abolished the feed-in-tariffs in 2013, which caused a collapse of the PV market. Consequently, new installations dropped from around 7GWp/year in 2010 to only 400 MWp in 2017. The Italian government is currently planning to introduce new feed-in tariffs for renewable energy in 2019, but fundamental changes such as this cause confusion among many companies. The same is true for Poland where the legal framework for renewable energy was uncertain until 2016, when the government introduced a new PV law. Encouragingly, the PV market has grown consistently ever since, and renewables are becoming more and more popular among companies.

Thanks to these political developments, which reflect the dynamic nature of the renewable energy market as a whole, the satisfaction levels in Spain, Italy and Poland should rise over the coming years.

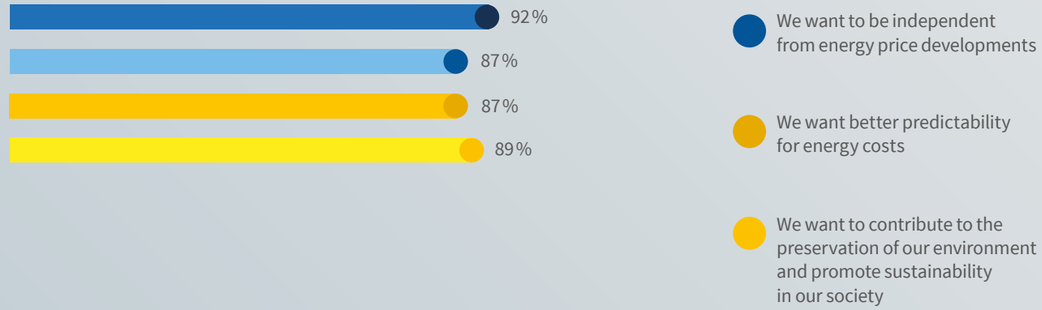
Although respondents tended to appreciate the overall regulatory frameworks in their countries and the fact that they were encouraged by their governments to invest in renewables, a majority of them identified overly complex bureaucratic regulations as a major problem, which made investing in renewable energy more difficult (76 per cent).

By investing in new renewable projects, creating new deal structures to open up markets, and introducing new technology solutions to storage and grid management, we see it as our role to lead by example and show how corporations can drive the renewable transition.

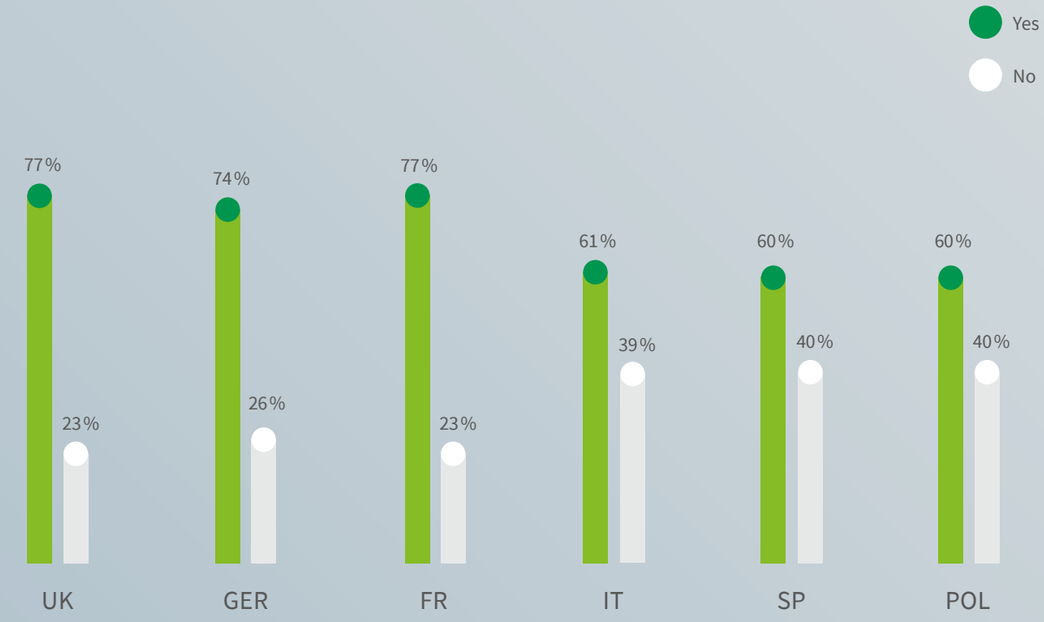
Vanessa Miler-Fels, Renewable Energy Strategist, Energy & Sustainability, Microsoft Cloud Operations & Innovation

Microsoft

3. What are the top four reasons for using renewable energy?



4. Are corporations satisfied with the framework their government provides for renewable energy?



wbcsd

Growth in Corporate Renewable PPAs observed over the past years is the result of collaboration across the renewable supply chain. Corporate buyers, developers and lenders have come together outside of deal negotiations to find common positions within WBCSD's Forum. This report shows when governments are providing a stable and favourable legal framework, corporate demand will drive further renewable deployment in Europe.

Mariana Heinrich, Manager – Climate & Energy, World Business Council for Sustainable Development (WBCSD)

The survey yielded similar results in all countries, company sizes and sectors. While broad policy may be favourable, it is in the detail where frustration is being caused and the greatest risk exists for complexity and bureaucracy to mean potential goes unrealised. This is a clear call for national governments to act and improve national legislation to make renewable energy more attractive to invest in.

Companies seem to be afraid of long payback periods

Besides overly complex bureaucratic regulations, respondents also stated numerous concrete barriers that prevent them from making investments in renewables (see figures 6).

One of the main obstacles respondents mentioned was the long payback period for investments in renewable energy (44 per cent). 54 per cent of the companies with between 5,000 and 10,000 employees cited extended payback periods as the most frequent hindrance. Roughly the same number of companies from the wholesale & retail industry stated the problem (52 per cent). For large companies with more than 10,000 employees, payback periods were less decisive (31 per cent).

This result makes it obvious that the industry needs to work harder on making corporations aware of the options available to them: A good example is Germany, where the battery used for peak shaving can enable a peak reduction of up to 25 per cent. Depending on the company's load curve and capacity charge, an investment in such a battery solution can have an amortisation period of three to seven years. Such a storage solution can easily be combined with a solar installation to decrease the system's payback time and in order to increase self-consumption. A battery solution brings the further advantage that it perfectly meets potential e-mobility needs (to avoid grid extension or limited charging power). In addition, there are also various contracting or leasing models that do not require investments at all.

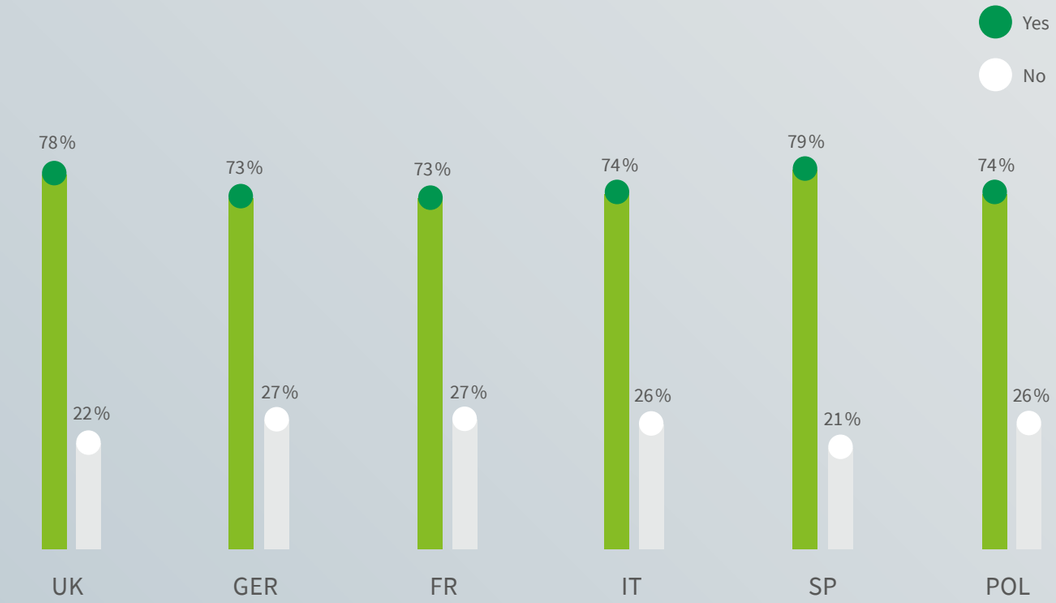
Another possible procurement option are Power Purchase Agreements (PPAs), which allow companies to be provided with renewable energy without having to operate their own facilities – however, this option is not available or attractive in some of the surveyed countries as yet. As mentioned above, there is a clear need to provide corporations with information on existing business models and opportunities.

High investments costs and risk of supply failure

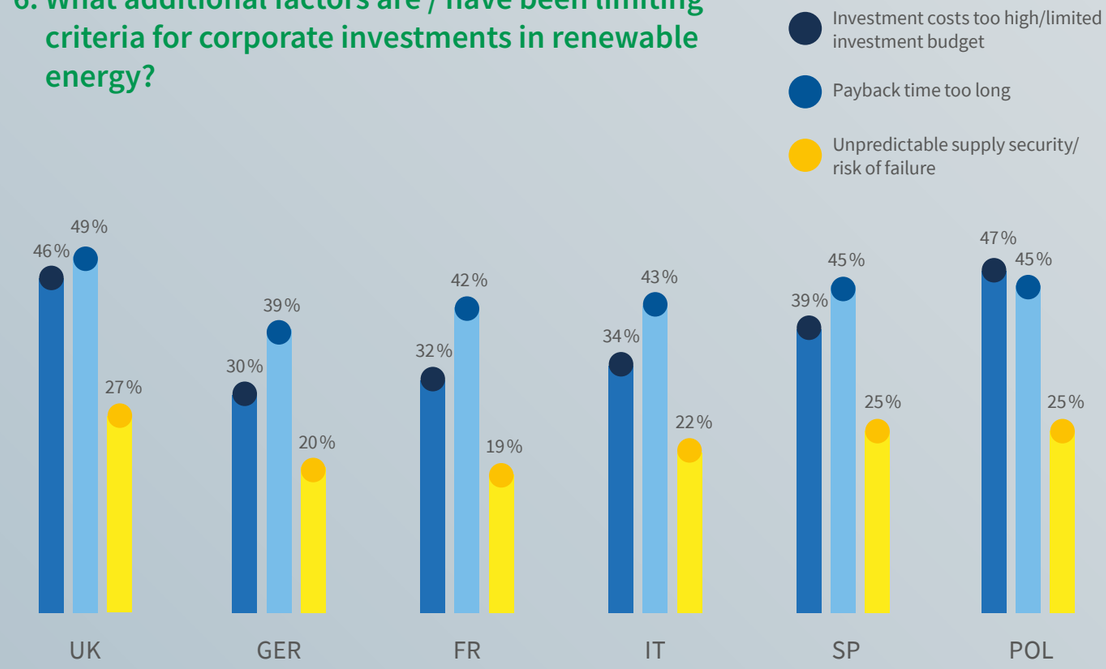
The second most cited obstacle is due to cost-driven factors: 38 per cent of respondents stated that the investment costs for renewable energy are too high or that their company has only a limited investment budget (see figure 6). As was mentioned above, more educational work still has to be done to ensure corporations are fully aware of the options available to them. But this is only part of the solution. The renewable energy industry must ensure it offers a broader range of options that meet the specific needs of corporations from different markets and of different sizes, and is therefore able to provide tailored solutions that can best address needs and budgets.

The third most frequently cited barrier to investing in renewables, but some way behind the top two responses, was the fear of unpredictable supply security or a risk of supply failure. This was regarded as a major obstacle by 23 per cent of respondents in all surveyed countries, although renewable energy technologies are technically mature, and plants use them to perform with a very high technical reliability. This does not compensate for the uncertain availability due to the fluctuating production capacities of wind and PV plants, but should improve the trust in supply security in the long term. In addition, operators of renewable energy plants have to provide the services agreed in the operation & maintenance contract as non-performance usually triggers liquidated damage payments.

5. Do bureaucracy and complex regulations limit corporate investments in renewables?



6. What additional factors are / have been limiting criteria for corporate investments in renewable energy?



* *top three responses shown*

4. Looking ahead: targets and plans for sourcing renewable energy

Although many energy decision-makers identified major hurdles with respect to investments in renewable energy, most of them, encouragingly, continue to pursue ambitious sustainability targets and investment plans, as the results of the survey show.

Sustainability targets on the rise

More than half of the surveyed companies (55 per cent) aim to reduce greenhouse gas emissions, increase energy efficiency or use renewable energy. The broad objective of increasing the use of renewable energy is a target for 66 per cent. Almost equally important among the companies surveyed is the goal of reducing greenhouse gases (65 per cent). Increasing energy efficiency comes in third in the survey (55 per cent) (see figure 7).

Spanish companies are particularly ambitious – 76 per cent of them want to increase their use of renewable energy. Despite respondents viewing the challenging political situation and legal framework (chapter 3) in Spain as a key barrier, this has not dampened their ambitions. With changes coming through that will remove current legislative barriers, this should help companies to realise their goals. Benefiting from some of the highest levels of solar radiation in Europe, as well as large areas of available space, Spain's potential for renewables is significant. If the ambition that exists can now be unlocked through a more favourable legislative framework, the future for Spain is bright.

In Germany, increasing energy efficiency plays an above-average role and 66 per cent of the surveyed companies want to increase it. This could be due to several factors, including the strict regulations for energy audits in Germany, the high public awareness of climate-change-related issues and the fact that employees want to work in companies that place great importance on sustainability. Implementing greater energy efficiency is also in many cases a very cost-effective measure and therefore the preferred way for many German companies to become greener and reduce their energy costs.

More than half of surveyed companies have investment plans

In total, 54 per cent of all surveyed companies plan to use renewable energy or install their own renewable energy capacities within the next five years. Industries that were especially keen to source renewable energy were the agriculture and farming sector (74 per cent) and the IT, telecommunications and media sector (66 per cent).

A reason for this may be the comparatively high need for energy on the part of the IT, telecommunications & media sectors. Another reason may be an especially high interest on the part of the agriculture and farming sector in a sustainable energy supply, which farmers hope will give them a competitive advantage. By contrast, the banking and insurance sector (42 per cent) and public sector (37 per cent) have shown less than average interest in sourcing renewable energy. This could be down to the fact that these sectors have comparatively lower energy needs.

7. What are corporations' top three sustainability targets?

** of companies that stated they have sustainability targets in place.*

This report shows European corporate buyers are increasingly aware of the strengthening business case for renewables.

By pioneering innovative approaches and helping to shape regulatory frameworks, RE100 members have been instrumental in making corporate renewable energy use more mainstream. We expect more and more companies to step up their ambition and work with policy makers, regulators and energy suppliers to drastically accelerate clean power deployment.

Sam Kimmins, Head of RE100, The Climate Group

Companies favour investments in PV facilities

When asked about what renewable energy types they planned to invest in, most respondents, across all industries and countries of origin, gave solar as an answer (75 per cent). This result is not surprising considering the wide range of installation and application options, including rooftop systems for self-consumption, combined with the sharp decrease in prices for PV systems. The latest edition of the International Technology Roadmap for Photovoltaic Results (ITRPV) shows that the overall price difference between January 2016 and December 2017 amounts to 40 per cent (see figure 8). Since then, during the year 2018, prices experienced a further significant drop of around 20 per cent due to the removal of trade barriers as well as an unexpected reduction of installations in China.

Investments in green mobility

In addition, there is a rising tendency towards investments in e-mobility in all surveyed countries and across all company sizes and industries. Of the companies that were surveyed almost half (48 per cent) stated they intended to invest in measures that would increase their use of e-mobility over the next five years.

This coincides with the implementation of favourable policy frameworks throughout Europe: In Germany, Italy, Poland and Spain, for example, e-car buyers can look forward to tax reductions and exemptions, while in the UK and France they receive bonus payments and premiums - in addition to the fact that e-mobility is a relatively easy way to implement renewable energy technology in a company, these incentives are certainly another explanation for the clear investment intentions in the surveyed countries.

If companies remain committed to the intention to significantly increase their investments in e-vehicles and e-vehicle fleets, this will lead to a condition in which companies will not only be considering how they will source more of their energy from renewables but will also need to consider the associated requirements for transitioning to electric vehicles, including the expansion of intelligent power grids and installation of the infrastructure for recharging electric vehicles.

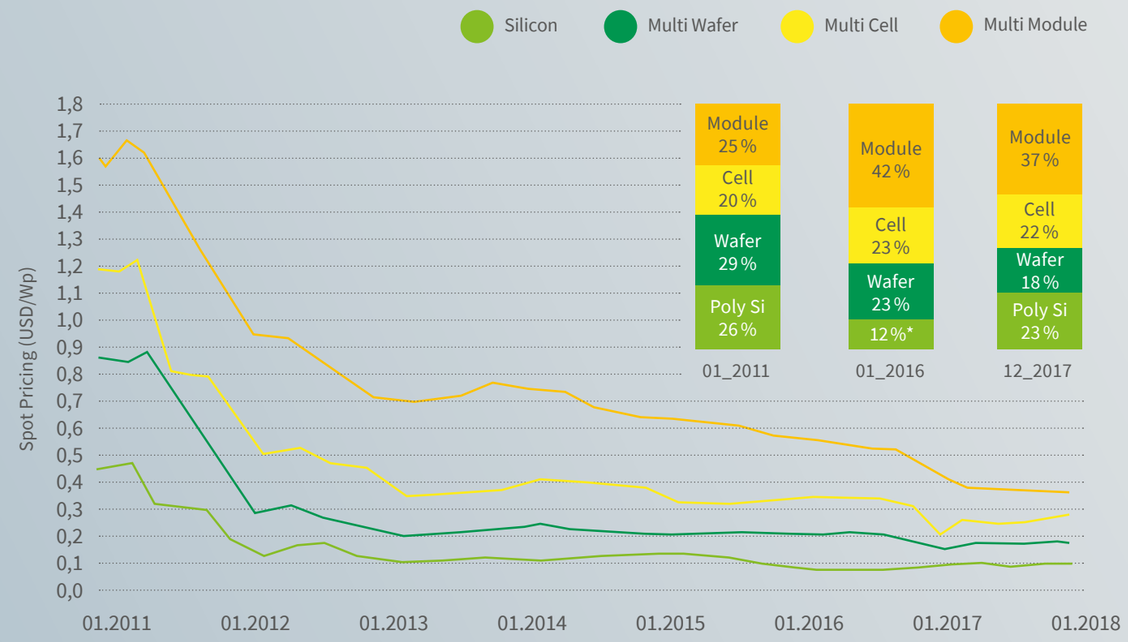
[3] https://pv.vdma.org/documents/105945/26776337/ITRPV%20Ninth%20Edition%202018%20including%20maturity%20report%2020180904_1536055215523.pdf/a907157c-a241-eec0-310d-fd76f1685b2a

The growing momentum and impact of corporations working to scale renewable energy is clear. Yet despite the progress made to date, more must be done to maximise Europe's full potential for corporate investment in new sources of renewable energy and associated environmental and economic benefits.

The RE-Source Platform aims to increase the number of active corporates from 100 to 100,000.

Bruce Douglas, Coordinator, RE-Source Platform / Deputy CEO, SolarPower Europe

8. Price Trend for c-SI modules[3]

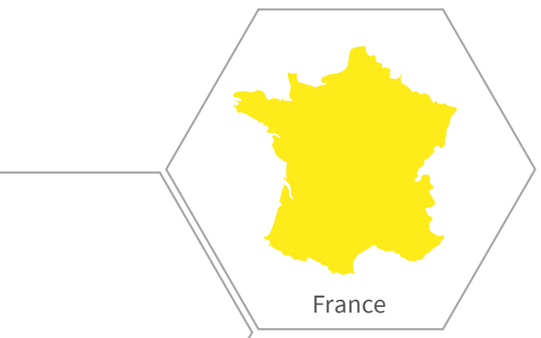


* Poly Si

5. Green Europe? A country comparison

It all now depends on the actions the French government takes in the next five years. And there are some quite positive signs – according to the latest plans, the French government aims to triple France's onshore wind power capacity by 2030 and multiply by five its solar power generation, enabling it to boost the share of renewables in its energy mix to 40 per cent.[4] Another promising project that is currently in development is a tender for the airport in Paris. If successfully realised, this would be the first PPA in France and another major step in the right direction.

Julien Chirol,
Sales Manager for France at BayWa r.e.



France: the big supporters of the energy transition

RE capacities installed: 46,682 MW[5]

Even though French companies felt particularly enthusiastic about promoting the energy transition (95 per cent), they still face substantial obstacles. Of all surveyed countries, France has one of the lowest carbon emission rates per person[6] because nuclear energy constitutes a major factor in the French electricity sector. Therefore, renewable energy still plays a rather minor role.

Roof modules for supermarkets are becoming a successful business model though. The number of roof installations has increased, and this market segment has grown steadily. Many companies, however, are still not aware of the many advantages that installations offer. This is also due to the specific energy landscape in France that still focusses on nuclear power to a comparatively high extent.

[4] Reuters (2018): https://www.reuters.com/article/us-france-energy-renewables/france-plans-to-triple-wind-power-capacity-by-2030-idUSKCN1NW1Z8
[5] Capacity data is based on the Renewable Electricity Capacity and Generation Statistics of the International Renewable Energy Agency (IRENA) http://resourceirena.irena.org/gateway/dashboard/
[6] European Environment Agency (2017): https://www.eea.europa.eu/themes/climate/trends-and-projections-in-europe/trends-and-projections-in-europe-2017/country-profiles-greenhouse-gases-and-energy/france-ghg-and-energy-country-profile.pdf/view

Many German companies have already installed their own solar power systems, and we are getting closer to establishing the first PPAs in the German market. The LCOE (levelized costs of energy) is dropping because prices for PV components are decreasing. These developments, combined with the continued interest in improving corporate sustainability, will encourage German companies to further invest in renewable energy.

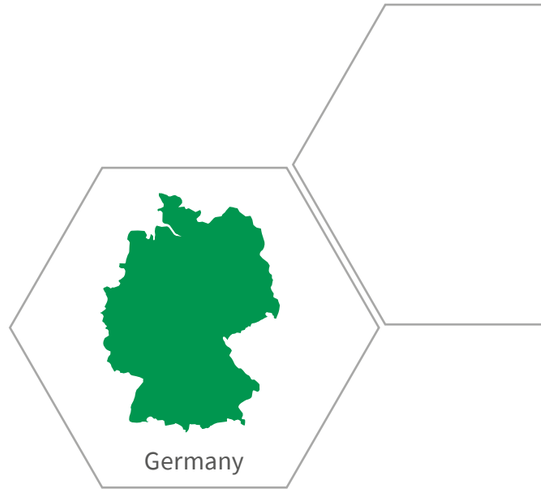
Jochen Hauff,
Head of Strategy, Energy Policy & Sustainability at BayWa r.e.

Germany: the front-runners of renewable energy are slowing down

RE capacities installed: 113,061 MW[5]

Germany plays a leading role in the energy transition and ranks fourth worldwide with respect to installed renewable energy capacity. And capacity is still increasing further: the German renewable energy sector encompasses a total of more than 330,000 jobs.[7]

The energy transition enjoys widespread support in Germany. The tender system in Germany for wind and solar projects generally works well, but there is increasing resistance to wind energy projects among the German population. Electricity costs are comparatively high for some companies, whereas for others they are quite low depending on whether they are part of energy-intensive industries and exempted from paying energy taxes or the EEG levy. In general, however, energy costs are not higher than in other European countries.



[7] German Federal Ministry for Economic Affairs and Energy (2018): https://www.bmwi-energiewende.de/EWD/Redaktion/Newsletter/2018/03/Meldung/direkt-erfasst_infografik.html

To achieve the goals for 2030, Italy introduced new FITs for solar, wind, hydro, geothermal and waste gas in early 2019. Furthermore, there will be additional auctions for about 5 GW for wind and solar. For non-FIT plants it is planned to introduce a new PPA platform to guarantee long-term PPAs. The new law came into force at the beginning of 2019. This has the potential to initiate a restart of the renewable energy sector from 2020 that could then result in high growth rates.

Helmut Leiter,
Sales and Project Manager at BayWa r.e. Solar Projects

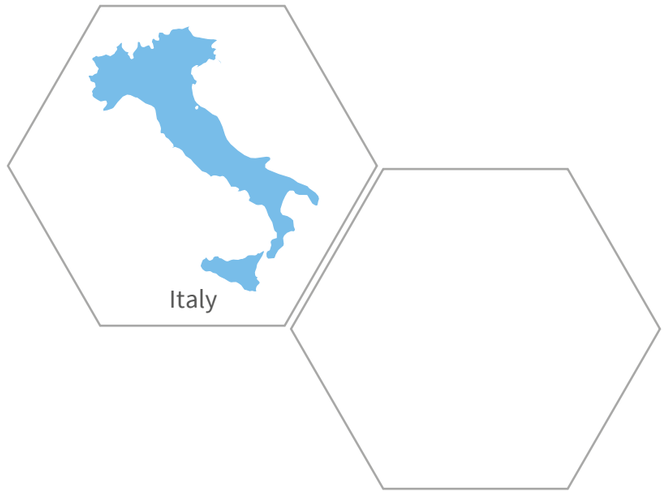
Italy: renewable energy enthusiasts

RE capacities installed: 51,962 MW[5]

Italian companies were especially keen on installing their own renewable energy capacities. This fact is reflected in the size of the country's renewables sector. In Italy more than 37,000 people are permanently employed and more than 15,000 temporarily employed in the renewable energy sector. In 2017 about 930 MWp of new capacity was installed. Investments in this sector amounted to 2,940 million euro in 2017 and 5,074 million euro for O&M.[8]

On the other side of the coin there were also major throwbacks, like the abolition of feed-in tariffs (FIT) which caused a major collapse in the PV market in 2013. Nevertheless, renewables remain very popular and a lot of new small plants have been installed in the last couple of years.

The Italian government defined clear renewable energy goals but has not devised an adequate roadmap yet on how to achieve them. Italy will quit carbon-based electricity production in 2025 at the latest. In the current energy strategy from late 2017, called SEN (Strategia Energetica Nazionale), the government emphasised that the LCOE of solar and wind production would be cheaper in the following year compared to fossil energy production plants.[9]



[8] Gestore Servizi Energetici (2017): https://www.gse.it/documenti_site/Documenti%20GSE/Studi%20e%20scenari/Presentazione%20Relazione%20Energetica%20Nazionale%202017%20-%20GSE.pdf
[9] Newsletter for the European Union (2018): http://www.newslettereuropean.eu/italian-national-energy-strategy-sen-next/

In 2016 there was a highly important change in the Polish law. The government decided to support and expand PV systems. The legal framework for renewables has been relatively stable and things have gone in the right direction ever since. Renewable energy is becoming more popular and the conditions for investing in PV projects are good. The current trend is still positive, which will improve satisfaction among Polish companies in the long term.

Łukasz Zaziąbł,
Regional Sales Manager Poland at BayWa r.e.

Poland: on the fast track

RE capacities installed: 8,110 MW[5]

Poland is a comparative newcomer with respect to renewable energy, but the solar sector has developed well in the last five years. So far, however, renewables have not had a major impact on the Polish economy.

The development of renewable energy in Poland started with wind energy projects but, in time, the PV sector became the driving force of the Polish renewables sector. The Polish PV market has grown constantly since 2019. Growth in this sector during 2019 is expected to amount to some 0.5 GW.[10] Investors are currently focusing on PV because installations of PV plants are relatively easy to realise and have a positive public image, as a lot of jobs have been created in the industry. Self-consumption installations are also becoming more and more popular.

Poland currently has to buy a lot of energy from abroad because national production rates are too low to cover the increasing demand for energy. As a consequence, the public image of renewables has steadily improved. One of the main drivers of this development is the relatively high level of air pollution, which many people in Poland attribute to the coal industry.

[10] Renewables Now (2018): https://renewablesnow.com/news/overview-polands-180-degree-turnaround-to-green-energy-bears-first-fruits-604409/

We have recently seen Spain become home to one of Europe's first subsidy-free large-scale utility projects. The 175 MW project Don Rodrigo in Andalusia, represents a turning point for renewables in Europe. Without any reliance on the Spanish government, it completely removes legislative change as a risk factor and opens the door to commercially driven development, independent of the state.

Claus Bünermann,
Managing Director of BayWa r.e. España S.L.U.

Spain: planning pioneers

RE capacities installed: 48,185 MW[5]

Of the companies surveyed in Spain, 76 per cent are planning to increase their use of renewable energy. Their primary motivation for pursuing ambitious renewables targets is that the Spanish renewable energy market is changing. The country currently ranks tenth worldwide in terms of installed renewable energy capacity. By 2020, 4 GW will be added by tenders and there are currently some 5 GW of PV capacity installed, with another 30 GW still pending approval. The market has seen significant growth in corporate PPAs.[11]

Spain, however, also has a negative track record as far as renewable energy is concerned, as the legal situation has been volatile. On the one hand, the Spanish government promoted investments in renewable energy but, on the other, it has also changed the legal framework many times. As a result, many businesses and citizens who had invested in PV systems incurred substantial financial losses.

In addition to the considerable increase in electricity costs of 80 per cent over the last ten years,[12] this led to a particularly bad image of renewable energy in Spain. Failing to register renewable energy systems correctly also carried severe financial penalties for businesses. Therefore, the financial and bureaucratic hurdles for sourcing renewable energy became higher and as a result there is less trust in renewables among companies than in other EU countries.

Spanish companies are particularly interested in self-consumption systems, which make electricity cheaper and improve their public image. This is why renewable energy will prevail in Spain in the long term, as it is the cheapest form of energy and the climatic conditions for wind and solar systems in Spain are ideal. Changes to the Spanish legal framework which the government is currently implementing should go a long way to beginning the process of unlocking the significant potential Spain has for renewables.

[11] *Everoze (2018): http://everoze.com/clear-push-to-corporate-ppas-for-spanish-renewables/*
[12] *El confidencial (2015): https://www.elconfidencial.com/economia/2015-08-21/factura-luz-facua-subida-precio_980186/*

Annual investments in renewable energy are lower than at any other time in this decade. In terms of solar energy, the market conditions are challenging. Solar farms continue to be built, but only on a very low level. In the UK residential market, the situation is similar. However, the potential for renewable energy is still significant, with all the fundamental elements of the sector supporting its continued deployment.

Gordon MacDougall,
Managing Director of BayWa r.e. UK Limited

UK: fighting the post-gold-rush era

RE capacities installed: 40,269 MW[5]

The UK renewable energy sector has seen considerable progress, which has largely been responsible for a reduction in carbon emissions of 43 per cent compared to 1990 levels. In times of Brexit, however, the annual level of investment in renewable energy is lower than in any other year this decade, with recent spikes driven by a "gold-rush" of subsidy closures.

Furthermore, the government withdrew all support for solar and onshore wind power, which is why there are currently no tenders for onshore wind or solar in the UK. Waning government support for renewable energy in addition to an end of the Renewable Energy Obligation (ROC) scheme in 2016 meant that investment became less attractive. Overall, the opinion polls suggest that politics are currently lagging far behind public opinion, as public support for renewable energy seems to be considerably stronger than the political will to advance renewable energy in the UK.

6. Summary: Quo vadis, European energy transition?

The facts are straightforward: The deployment of renewable energy must increase six-fold in order to meet goals outlined in the Paris agreement.[13] This increase will require fundamental shifts within current national and European policies, as well as in corporate behaviour, procuring and investment strategies worldwide. There is good news however: The Energy Report of 2019 clearly shows that European companies are on board. This provides European companies with the opportunity to become one of the major drivers in accelerating the energy transition.

The reasons for this concordant ambition may vary: from the desire to create a green image for the customer, the intention to save on energy costs, and finally the conviction that companies have a social obligation to contribute to climate protection. What is crucial is that most companies surveyed already have tangible sustainability targets and concrete investment plans for corporate sourcing, energy efficiency or e-mobility.

But what needs to be done in order to unlock the full potential of corporate sourcing of renewables that will tremendously increase the chances of achieving the global climate targets? First of all, and most importantly, politics, utilities, energy service providers and companies alike must contribute.

National and European politics: Laying the foundation for the energy transition

One of the most crucial tasks of national governments and the European parliament is to create the legal basis for the success of the energy transition and to actively promote corporate sourcing. This includes:

- Developing and enabling frameworks and regulations by facilitating the opening of new sectors and markets
- Creating uniform, transnational regulations which enable companies with subsidies in several European countries to roll out a consistent sustainability strategy
- Reducing bureaucracy and red tape on a national and European level to encourage companies to invest in renewable energy
- Actively promoting innovation in the renewable energy sector that will provide companies with even more options to choose from when they decide for corporate sourcing
- Incentivising environmentally friendly corporate decisions and investments
- Fostering regular exchange with energy decision makers and influencers within corporations

Utilities and energy service providers: Provide comprehensive advice and individual solutions

Given that a third of corporate energy decision makers surveyed still had significant knowledge gaps, education is an essential task for utilities and energy service providers. Even more important, however, is the expansion of their consulting expertise:

- Becoming more customer focused and competently filling the consultant role by providing companies with comprehensive advice on all existing solutions in order to identify solutions that best fit their individual needs
- Communicate more clearly that sourcing renewable energy on a corporate level has significant potential to save on costs, while also meeting sustainability and environmental goals
- Easing doubt and providing companies with information on the long-term profitability of renewable energy investments. This also includes explaining the amount of operational costs for the supply of electricity, as well as the independence from price volatility caused by natural gas, coal or CO_2 price developments which conventional power sources are subject to.
- Stay in constant exchange with political players and demand improvements in the legal and regulatory frameworks within the interests of companies

[13] *IRENA (2018): Global Energy Transformation: A roadmap to 2050. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA_Report_GET_2018.pdf*

Individuals and companies want to take climate action by investing in renewable energy generation and sourcing renewable energy. A simple and inclusive legal framework is essential to accelerate the transition to an affordable and clean energy market. This will enable many more people to live better lives within the limits of the planet.

Karol Gobczyński, Head of Climate & Energy, Ingka Group, IKEA largest franchisee

Corporations: Driving the change by recognizing the energy transition's economical potential

Corporate sourcing of renewable energy is already taking place in over 70 countries all over the world.[14] The results of the Energy Report show that one of the main reasons for this development is that companies are aiming to save on energy costs by investing in renewables.

This is a perfectly legitimate economic goal that corporate sourcing of renewable energy can make a decisive contribution to. But the potential of such investments goes much further: By shifting towards more direct sourcing models, companies can not only decrease the cost of their power supply and remain unaffected by price escalation and price volatility. By investing in renewable energy, and considering the following calls to action they also contribute to socio-economic benefits such as job creation and welfare gains:

- Rework existing sustainability strategies and work continuously to achieve targeted goals
- Demand professional advice and not be intimidated by the strategies from big companies that have already implemented extensive renewable energy projects: Given the diversity of regulations and the variety of available solutions, corporate sourcing options are profitable for almost every company and can be implemented incrementally - whether it's a rooftop, a leasing model or building an e-mobility fleet
- Building up internal expertise, e.g. by hiring proprietary energy procurement managers
- Take an active position on sustainability and corporate sourcing and demand an improvement within the political framework

The future of corporate sourcing of renewable energy

If all the parties involved consider these calls to action and work hand in hand to achieve the climate goals agreed upon in Paris, corporate sourcing of renewable energy will become a model with which companies in Europe and worldwide can make a decisive contribution to the energy transition.

However, corporate sourcing of energy is only the first step in the right direction. Companies' carbon footprints extend well beyond their electricity consumption. The future corporate commitment to use renewable energy should therefore not stop at electricity generation, but rather focus on all relevant scenarios – including transport, heating and cooling.

The Energy Report 2019 shows that companies, political players and energy providers have already successfully embarked on this path. Over the next few years, it will be important to maintain that direction and accelerate the pace of development together.

[14] *IRENA (2018) Corporate Sourcing of Renewables: Market and Industry Trends. REmade Index 2018. https://irena.org/-/media/Files/IRENA/Agency/Publication/2018/May/IRENA_Corporate_sourcing_2018.pdf*

About

Study Design

The Energy Report 2019 was commissioned by BayWa r.e. renewable energy GmbH. The study examines the energy supply in companies with more than 500 employees based in one of the following countries: UK, Germany, Italy, Spain, France or Poland. The study was conducted amongst corporate decision-makers with decision-making powers in one of the following areas: energy providers, factory or company equipment, property and buildings, technical equipment and machinery or raw and fuel materials.
Responsible institute for programming and sampling:
Lightspeed GMI
Method: Online survey
Sample: n = 1,200 respondents / companies (200 per country)
Survey period: 6 to 17 August 2018

About BayWa r.e.

Across solar and wind, at BayWa r.e we r.e. think energy - how it is produced, stored and best used. We are a leading global developer, service supplier, wholesaler and energy solutions provider. We deliver renewable energy solutions worldwide, and have brought 2.5 GW of energy online, while managing 6.1 GW of assets. BayWa r.e is a leading supplier to the solar wholesale market. We also have a rapidly growing energy trading business. Part of the €16 billion BayWa Group, every day we are working hard to find new solutions, push technological boundaries and actively shape the future of energy.

About the RE-Source Platform

The RE-Source Platform is a European alliance of stakeholders representing clean energy buyers and suppliers for corporate renewable energy sourcing. This platform pools resources and coordinates activities to promote a better framework for corporate renewable energy sourcing at EU and national level. The multi-stakeholder platform is bringing together the interests of both buyers and sellers, to unlock the potential for corporate sourcing of and promising financing stream's for renewable energies. Learn more at: **http://resource-platform.eu/about/**

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