

# State of the European Renewable Energy Market

H2 2020

Market Overview and Key Trends for Corporate Buyers



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## H2 Key Findings

### Decarbonisation and Renewables Drive Recovery

Widespread decarbonisation commitments continue to drive corporate demand for renewable energy procurement across the European market, despite the effects of the COVID-19 disruption.

### An Increasingly Dynamic Regional Market

The European renewable energy market continues to evolve at a very quick pace. Corporate buyers need to ensure they are evaluating the right projects in the right markets at the optimal time.

### Innovation Accelerates

Corporate renewable energy buyers are pioneering a range of deal structures outside of the traditional fixed-for-floating model, rising from H1 observations.

### Continued Solar Surge and Flexible Deal Sizes

Solar continues to surge, with bids for solar projects coming from all European markets in the H2 data set. Renewable energy developers are showing greater flexibility in PPA size, offering increased opportunities for projects under 50 MW.

## 2021 Trend Observations

### Supply Chain Engagement Ramps Up

Companies are not only working to address their own operational emissions, but are also placing increased importance on decarbonisation throughout their value chain.

For more information, check out our [latest announcement](#).

### Preparing for Projects Coming Online

Many power purchase agreements (PPAs) signed for wind and solar projects during 2020 and earlier will start to come online in 2021. Preparing to manage these contracts will be key to their success.

For more information, check out our [article](#).

### Goal-Setting Accelerates

Setting ambitious renewable energy and sustainability goals continues to rise, as a popular strategy for companies to accelerate recovery after disruption.

For more information, check out our [toolkit](#).

### CDP Exemption Deadline Approaching

The exemption, which accepts contracts for transactions outside of identified market boundaries into CDP reporting, will expire on December 31st, 2021. Companies looking to leverage the clause will need to start exploring their renewable energy opportunities right away.

For more information, check out our [market alert](#).



# Summary of H2 YTD Data

The H2 2020 YTD data set, which informs this report, considers corporate request for proposal (RFP) and request for information (RFI) responses that have been gathered between July and November. It represents close to 750 renewable energy offers across Europe, submitted from more than 50 solution providers across 12 countries, resulting in a strong overview of the European renewable energy market for corporate buyers. The addition of the H2 data set brings the total number of European offers received by Schneider Electric in 2020 YTD to over 1500.

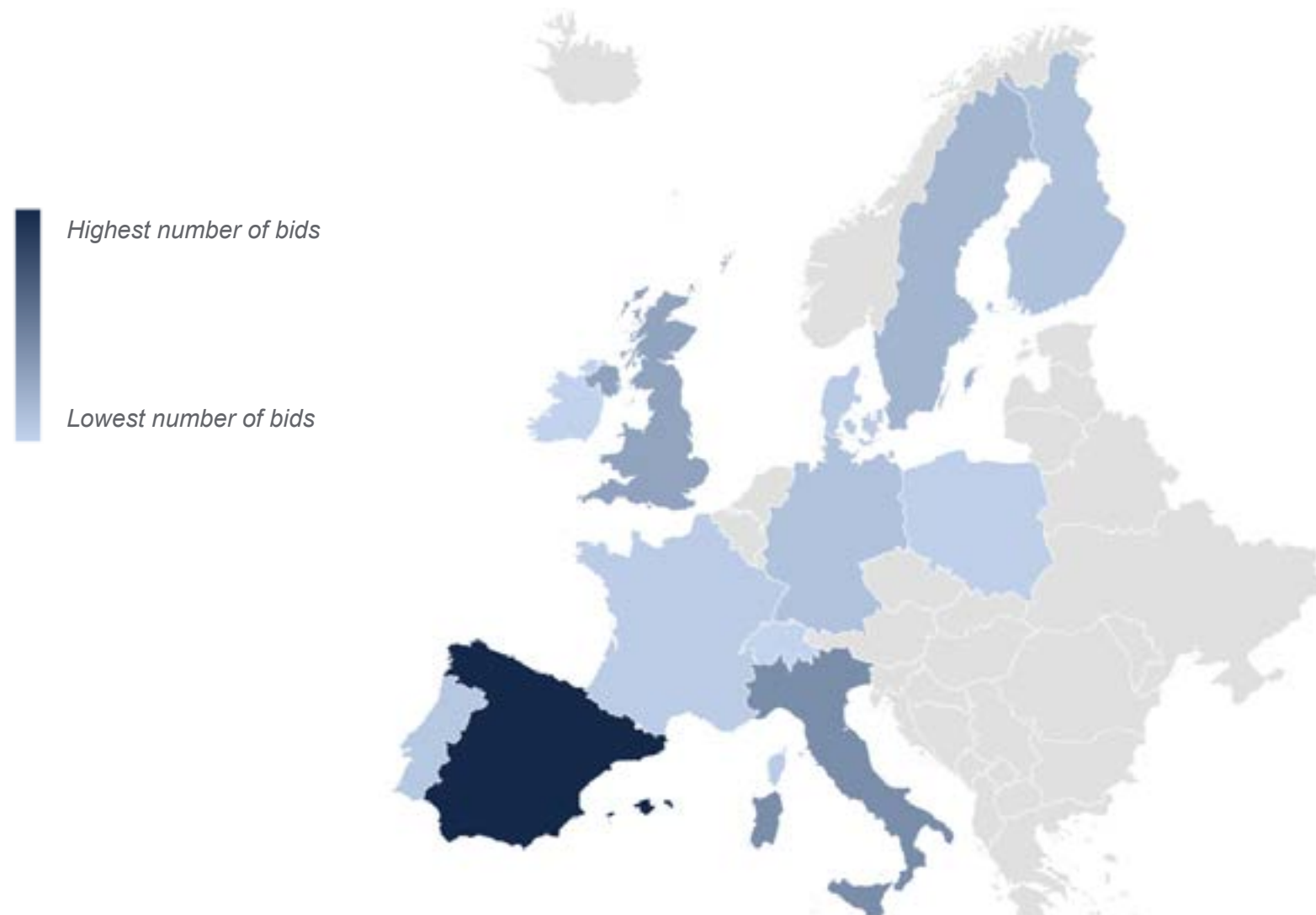


Figure 1: H2 Country Bid Distribution

*Schneider Electric Energy & Sustainability Services (ESS) currently manages over 125 million MT of CO2 on behalf of clients globally.*

*To date, the ESS cleantech team has advised on over 8,000 megawatts (MW) of wind and solar power, making it the leading corporate renewable energy advisor globally.*

*With experts on the ground in all key markets, the ESS cleantech team continues to help companies identify optimal solutions to procure renewable electricity in Europe.*

- 16**
- Targeted European Country Markets
- 28**
- Recent and Current PPA Processes in Europe
- 40+**
- Current Term Sheets in the European Market
- 505**
- MW of Completed PPAs in the European Market
- 6,000,000+**
- MW Hours of Renewable Electricity Managed in Europe

# Market Trends

## Technology

The growth of solar remained strong from July through November, now representing nearly 70% of the surveyed market, up by almost 10% from H1. Although a large number of solar offers came from southern European countries, such as Spain and Italy, solar projects in the H2 data set were submitted from markets all across Europe. The H2 offers also reflect an emerging trend of combining wind and solar projects under the same PPA. This combination of technologies is interesting to some corporate buyers, since it can balance the production profile and mitigate technology and cannibalisation risk.

## Price Structure

The number of PPA price structures outside the traditional fixed-for-floating model that were offered to corporate buyers rose by almost 5% from H1. This upward trend can partially be attributed to developer creativity and increased advisor facilitation of innovative deal structures across geographies. Wider availability of new price structures makes PPAs more accessible to corporate buyers with a unique set of needs or accounting considerations. It also offers enhanced risk management opportunities.

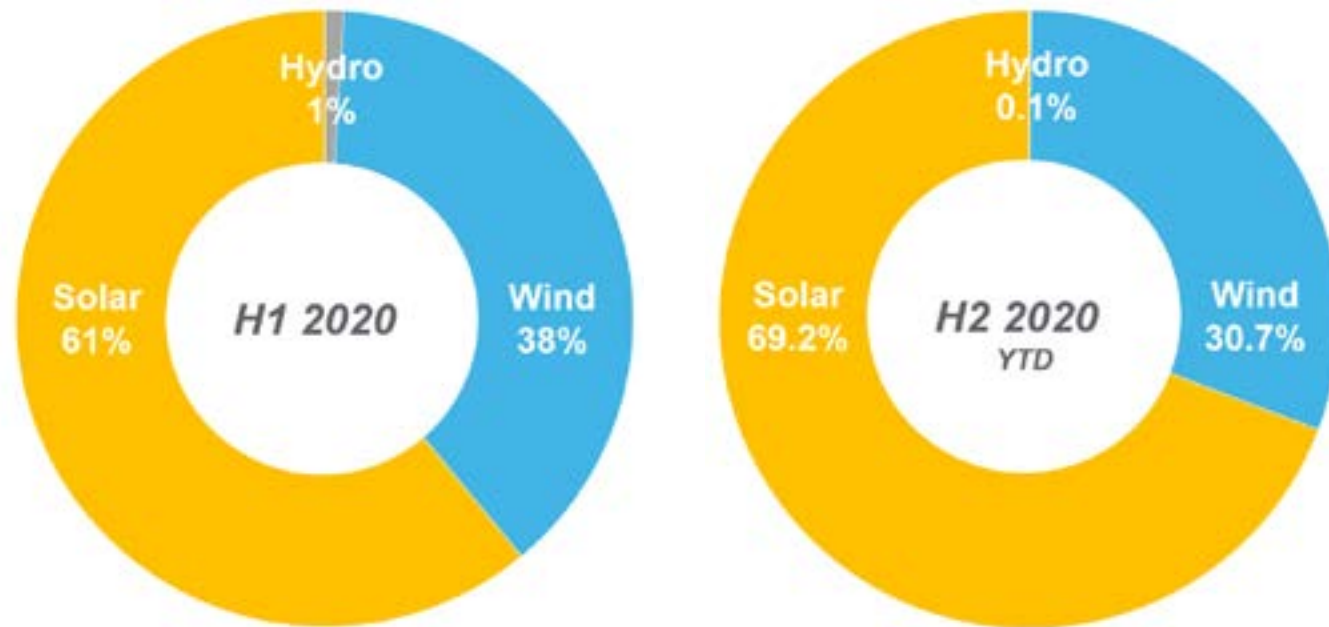


Figure 2: Renewable Energy Technology

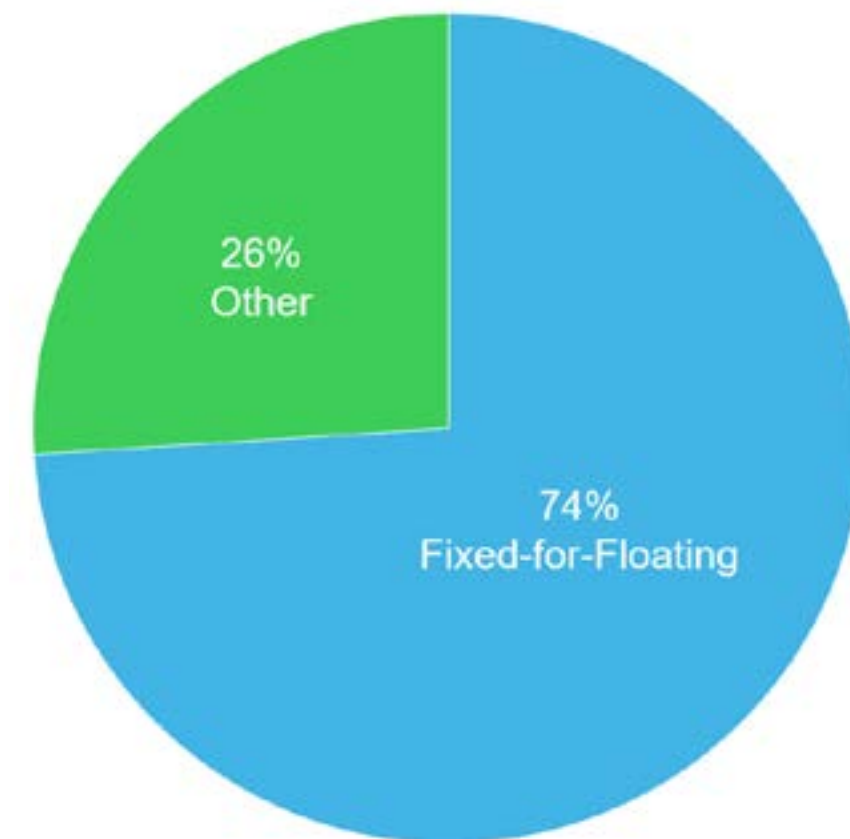


Figure 3: PPA Price Structure

# Market Trends

## Project Size

The rise in corporate sustainability and decarbonisation commitments continues to increase demand for wind and solar projects by corporate buyers outside the traditional tech and manufacturing giants. Project developers are responding in a positive way, offering an increased range of project sizes suitable for a broader set of buyers. Over the past five months, a majority of smaller-sized projects offered were solar projects, with some wind projects available as well.

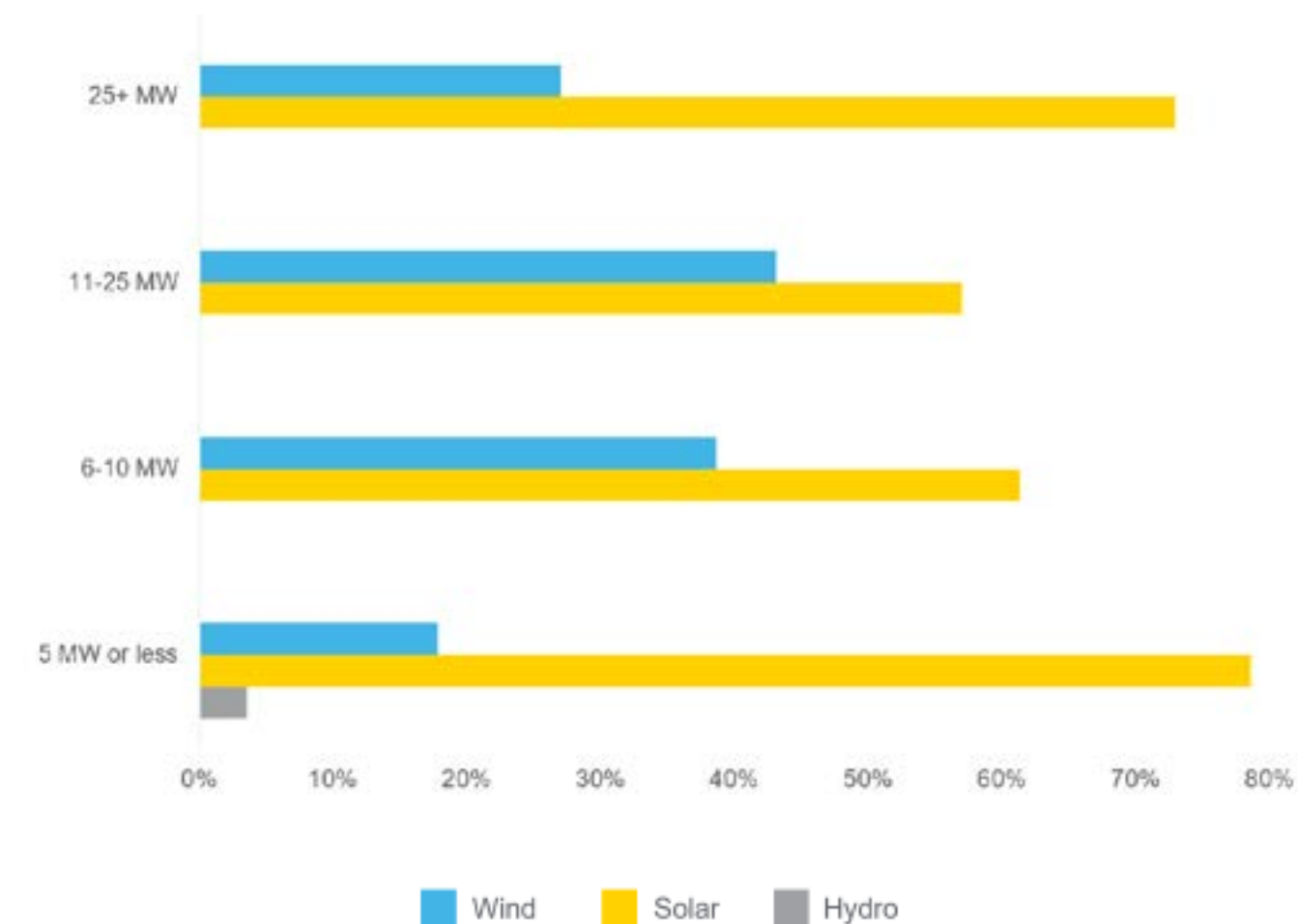


Figure 4: Project Size Offered by Technology

## Guarantees of Origin (GOs)

GO pricing continued to fall through Q3 and the first half of Q4, finding a low not observed since Q4 2015. Low prices are likely the result of strong production and a negative impact on demand due to the COVID-19 pandemic. Serbia became fully connected with the Association of Issuing Bodies (AIB) hub in November, bringing additional volume to the market. The market saw some upward pressure in the middle of November, but it remains to be seen whether that will continue through the end of the year.



*Note: The data displayed in this graph was calculated based on direct quotes received from GO providers in the European market, not from the RFP database.*

Figure 5: Guarantees of Origin Price per MWh

# Regional Market Spotlight: The Nordics

## Renewables in the Nordics

The Nordics is one of the most popular European regions for corporate buyers to explore PPAs. Many experienced developers are active across the Nordic country markets, presenting corporate offtakers with a wide range of increasingly innovative opportunities to procure renewables.

## The Corporate PPA Market is Taking Off

The growth of corporate PPAs has been largely driven by the decreasing levelised cost of wind electricity, and regulatory frameworks continue to support this trend through technology advancements. In addition to direct and virtual structures, the Nordic PPA market is proving increasingly interesting as a source of projects for a pan-European PPA approach. RFPs that we run for clients show strong options in the region.

## Wind Technologies Dominate the Market

Onshore wind dominates the Nordic PPA market, with the current pipeline of projects particularly strong in Sweden and Finland. Solar is not expected to overtake wind, but there is a pipeline of projects in Denmark and the southern part of Sweden for buyers that seek technological portfolio diversification and 24/7 renewable electricity supply.

## Important to Manage Risks

The Nordic electricity markets are divided into several bidding areas, settling at different area prices. In 2020, the demand shocks amidst high renewable output resulted in substantial price variances, putting risk mitigation at the forefront of PPA considerations. There are various tools that corporate buyers can leverage to mitigate risks in the Nordic markets.

It is important to note that participation in these markets can also expose corporates to risk.

Interested in exploring the Nordic PPA market? [Contact our local market experts today.](#)

*Past performance is not indicative of future results. Hypothetical performance results have many inherent limitations. No representation is being made that any program will or is likely to achieve profits or losses similar to those shown. Swaps, futures, and options trading involve significant risk of loss and may not be suitable for everyone. Therefore, carefully consider whether such trading is suitable for you in light of your financial condition.*



*Simon Gerrard is a Director of Renewables & Cleantech at Schneider Electric ESS, focusing primarily on corporate PPA procurement in the Nordics, UK and Ireland. He has over 15 years of experience in the renewable energy sector and is currently working with a range of corporate clients to evaluate PPA opportunities in the Nordic market.*

## Local Market To Watch: Italy

The Italian power sector is currently dominated by gas-fired plants, and clean energy investments are necessary to achieve the national target of 55% share of renewables by 2030. To address this, the government reopened the auction scheme in 2019. Auctions are currently set to end in 2021, but may very well be extended. In the first rounds, the vast majority of capacity was awarded to onshore wind projects across the country. However, favorable conditions for solar have attracted major developers to the Italian market. Many of these developers are looking for alternative routes to the market, such as corporate PPAs.

It is important to note that participation in this market can also expose corporates to risk.

Interested in exploring the Italian PPA market? [Contact our local market experts today.](#)



## Case Study: Ball Corporation



Ball Corporation is a world-leader in the packaging sector, supplying innovative, sustainable aluminum packaging solutions for beverage, personal care and household products customers, as well as aerospace and other technologies and services. On July 21, 2020, the company announced the signing of two virtual PPAs in Europe.

### Purpose

- Further Ball Corporation's long-term commitment to achieve and maintain 100% renewable energy in its European operations.
- Address approximately 63% of the European electricity load utilized in its aluminum beverage packaging plants (excluding Russia) with new renewable energy via PPAs.

### Path

- Adopted a portfolio approach and selected two different projects developed by two different solution providers in two different European countries.
- Executed two virtual PPAs (VPPAs) – one for the Corral Nuevo project with wpd in Spain and one for the Brattmyrliden project with Falck Renewables in Sweden – totaling 93.4 megawatts (MW) of additional wind energy.

### Results

- Ball Corporation's share of the Corral Nuevo and Brattmyrliden wind projects will generate nearly 308,000 megawatt hours (MWh) of renewable electricity in Europe each year.
- This is equivalent to the carbon avoidance that would be provided by removing more than 47,000 passenger vehicles from the road annually.

Access full press release at [Schneider Electric Perspectives Hub](#).

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## Indicative Pricing Overview

### Note:

- Price ranges displayed represent the 25th to 75th percentile of offers across VPPA structures from our H2 2020 YTD data set.
- Both wind and solar technologies are considered.
- Past performance is not suggestive of future results.
- Prices should be considered in context of the local market.
- See next page for some key observations.



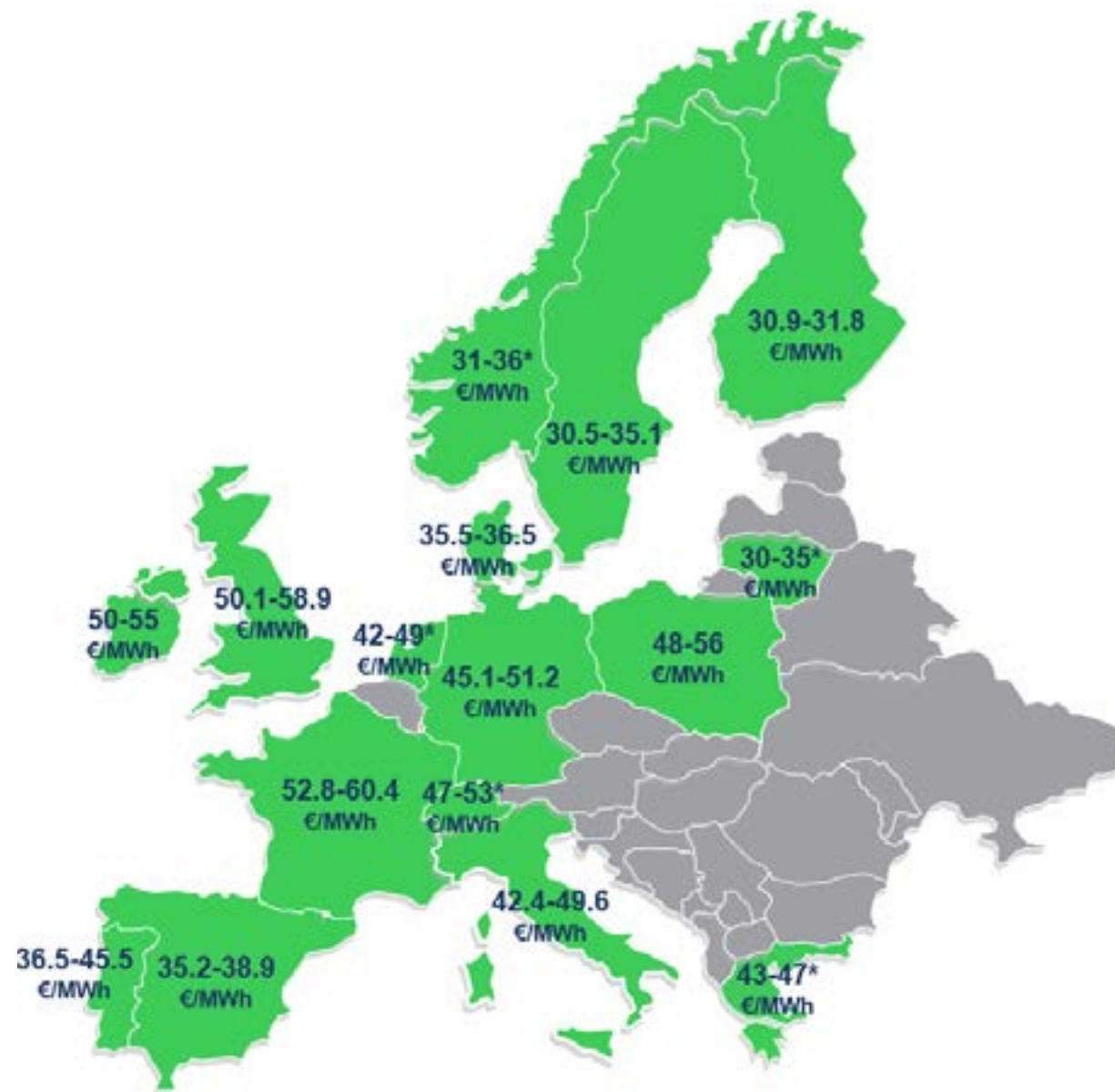
\*Price range observed is from the H1 data set.

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## Indicative Pricing Observations

- Spain, Germany and the UK have all seen a decrease in price per MWh over the past five months. Spain continues to be the most popular market in terms of number of bids submitted from developers.
- The French market continues to pose challenges for corporate PPA procurement, despite the announcements of some PPAs.
- Corporate interest in the Italian renewable energy market continues to increase, with solar offers dominating.
- There are challenges for corporate PPA procurement in the Polish market, both in terms of supply and pricing.
- Although Sweden and Finland have seen a slight increase in price, project net present values (NPVs) are still positive, and regulations continue to favor renewables.



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# NEO Network

## Uncover renewable energy solutions to accelerate company goals

Renewable energy and clean technology are expanding and creating new, economically viable opportunities for corporate buyers. But the market is complex. Energy and sustainability leaders are faced with the challenge of educating themselves and engaging stakeholders, understanding the global market, and finding the right solutions to meet their goals.

**NEO Network Accelerator Membership** gives corporate buyers **free** access to expertise and resources that simplify and accelerate cleantech decision-making.

**Market Education.** By leveraging our NEO Network of leading solutions providers, members are able to access in-depth country reports and explore wind and solar projects across Europe.

**Customized Data.** Distilled data, detailed resources, and analytics of our custom applications accelerate progress on global new energy opportunities.

**Virtual Community.** With over 350 corporate members, NEO Network fosters collaboration amongst like-minded organizations to help accelerate renewable energy opportunities.

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# Schneider Electric ESS

## Global leader in renewable energy procurement

Schneider Electric Energy & Sustainability Services (ESS) is a pioneering global supplier of renewable energy and clean technology products and services for the commercial, industrial, and institutional (C&I) sectors. We have engaged in over 100 PPA procurement exercises and over 8,000 MW of PPA projects around the world.

To date in Europe, Schneider Electric ESS is, and has been, involved with 28 PPA procurement exercises and over 6,000,000 MWh of renewable energy exercises across 16 European countries—including the first cross-border PPA. We continue to advise clients across the continent on a mix of direct and virtual PPAs, guarantees of origin (GOs), and carbon offsets.

## Schneider Electric ESS Global Impact Snapshot (2018 - 2019)

- Emissions savings for clients through PPA solutions: **39M Mt** CO<sub>2</sub>
- Emissions savings for clients through EPC solutions: **1.3M Mt** CO<sub>2</sub>
- Reporting clients with A/B CDP Scores (from 2019 scores): **75%**
- Reporting clients who increased scores from 2018 to 2019: **45%**
- CO<sub>2</sub> Managed: **125M Mt**

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