





The smarter E Europe The smarter E Europe conferences Munich, May 10–13, 2022

THE SMARTER E EUROPE TREND PAPER: POWER PURCHASE AGREEMENTS (PPA) IN GERMANY AND EUROPE

Munich/Pforzheim, February 2022: Thanks to their particularly low electricity production costs, PV Power Plants are the most important drivers of the photovoltaics market. These are increasingly financed with partners in the industrial sector or energy industry through multiple-year power purchase agreements (PPA). This enables companies to hedge against rocketing electricity prices from fossil and nuclear power plants and take practical steps towards reaching their climate targets.

The European market for green PPAs is growing dynamically. According to information from SolarPower Europe (EU Market Outlook for Solar Power), PPAs for large PV installations and hybrid solar and wind parks amounting to more than 1.9 gigawatts (GW) were concluded in 2021. The analysts at BloombergNEF (BNEF) put the volume of corporate PPAs (CPPA) concluded for solar and wind power in Europe and the Middle East in 2021 at around 8.7 GW. This is a rise of some 20 percent year on year. According to BNEF, new CPPAs totaling 31.1 GW were concluded world-wide last year (up 24 percent).

Businesses use Corporate PPAs to buy solar and wind power directly from the producer. In a Utility PPA, on the other hand, the power producers do not conclude a power supply contract bilaterally with a business, but with electricity suppliers or direct marketers who sell the power to a third party. There is also a distinction made between on-site and off-site PPAs, as well as trans-frontier and virtual PPAs. The latter are financial agreements aimed at smoothing out fluctuating market prices. No actual power is supplied.

PPAs on the rise in Europe

Spain is by far the most important market for solar PPAs in Europe. According to the current EU-Market Outlook from SolarPower Europe, PV installations financed by PPAs with a capacity of almost 3 GW joined the grid in 2021 – out of a total added capacity in new photovoltaic installations of 3.8 GW. Solar PPAs are also experiencing a strong upsurge in northern European countries such as Germany, Denmark, Sweden and Poland. Thus, according to the current EU-Market Outlook from SolarPowerEurope, PPAs have since become the third important pillar of PV growth in Germany alongside invitations to tender and self-consumption. For example, this led to Bosch agreeing, in the last two years, a number of solar PPAs with various operators, utility companies and direct marketers in Germany for the long-term supply of solar power. These amount to a total megawatt capacity running to three digits.

Last year in Denmark, PPAs were announced for a number of PV Power Plants, each over 100 MW in capacity, for a large-scale dairy, for example. In Sweden, PPAs are one of the drivers of the big jump in PV deployment in 2021 (0.7 GW, up 42 percent). Last year in Poland, supply contracts were concluded for solar power totaling 141 MW. Most recently, in January 2022, the largest ever PPA contract for a PV project rated at a capacity of 300 MW was signed between a Polish project planner and a Swiss energy company. PPAs are even gathering momentum in countries like Romania: A change in the law there recently has created the legal basis for the establishment of Corporate PPAs.

Germany is taking a leading role in the development of PPAs

Both SolarPower Europe and other analysts anticipate continued strong growth in the PPA market in Europe in the coming years. Germany, being an important industrialized nation with an ambitious strategy for decarbonization and the development of renewables, has a special role to play here. Moreover, the subsidy period under Germany's Renewable Energy Sources Act (EEG) is running out for more and more photovoltaic and other renewable energy installations. According to the calculations of the German Energy Agency (Dena), new marketing options for photovoltaics, wind, biogas and biomass fired plants with a generation capacity of around 51,600 megawatts (MW) will be needed by 2030. PPAs are not only attractive to large corporations in this context, but also represent an interesting solution for a climate-friendly future for SMEs and regional suppliers, such as municipal utilities and local government.

PPAs are also enjoying strong political support. For instance, the European Commission sees supply agreements for renewable power as an important option for businesses to hedge against rising energy prices. It is currently developing guidelines for EU member states to further improve the economic conditions for PPAs.

"To achieve the massive expansion of renewable energies we are striving for, we need a mix of tools: alongside the Renewable Energy Act we will strengthen tools for subsidy-free capacity expansion, such as long-term power purchase agreements (PPA) and the Europe-wide trade in certificates of origin to combat global warming," according to the new German Federal government's coalition agreement.

A boost for PPAs

The "Marktoffensive Erneuerbare Energien" (Campaign for Renewable Energies), an initiative led by Dena, the Association of German Chambers of Commerce and Industry (DIHK) and the German Association of Climate Protection Companies, recently presented proposals for a series of legislative changes to allow PPAs to develop to their full potential in Germany. Reducing the German Renewable Energy Act levy to zero as soon as possible and reforming the tax on electricity to promote the direct use of green electricity and hence also PPAs, for example. Furthermore, the initiative is asking the Federal Government to match the national funding guideline for electricity price compensation to EU rules, so that energy-intensive businesses can also access electricity price compensation if they are buying green electricity through PPAs. Competition law should also clearly permit PPA agreements to be concluded for terms of ten years or more. A further request of the initiative is that, to align with other European countries, virtual PPAs in Germany should not be treated as financial derivatives; relevant exceptions would need to be made for this in the German Banking Act.

PPAs in focus - at Intersolar Europe and its accompanying conference

Learn more about the most recent trends in PPAs, the opportunities and challenges they present and benefit from the chance to make new business contacts at the Intersolar Europe Conference 2022. In the exhibition segment of the world's leading exhibition segment for the solar industry you will also find companies presenting innovative products, projects and services in the field of PPAs. The session PPA for and with the Industrial Sector will take place on May 12. The main focus will be on current and future developments in Germany, such as the role of green hydrogen for PPAs. It will also present experiences in PPA projects, for example in regard to citizen participation schemes. <u>Click here</u> for the conference program.

Exhibitors at The smarter E Europe 2022 PPAs

- BayWa r.e. AG, A4.180, A4.181, A4.190
- BELECTRIC GmbH, A4.270
- German Energy Agency (dena), B5.418

- EnBW Energie Baden-Württemberg AG, A5.280
- Engie Deutschland GmbH, B5.451
- GOLDBECK SOLAR GmbH, A5.480
- INTEC Energy Solutions, A4.140
- juwi AG, A5.470
- Next Kraftwerke GmbH, B5.250
- SolarPower Europe, B3.109
- Stadtwerke München, B5.230
- STEAG Solar Energy Solutions GmbH, A4.280

Industry meeting point – The smarter E Europe 2022

The smarter E Europe 2022 will be held from May 11 to 13 at Messe München under the motto "Creating a new energy world". With its four energy exhibitions – Intersolar Europe, ees Europe, Power2Drive Europe and EM-Power Europe – Europe's largest platform for the energy industry provides the ideal opportunity to gain the latest information about the rapidly growing photovoltaics, energy storage and e-mobility market in Germany and in Europe as well as to make new business contacts.

The smarter E Europe conferences and exhibition forums:

At the specialist conferences and exhibition forums held as part of The smarter E Europe, visitors can learn about all aspects of the new energy world and engage in discussions with leading industry experts. Examples include decentralization, digitalization and sector coupling of the energy supply, technological trends in photovoltaics and energy storage as well as the latest charging technologies for electric vehicles. If you are interested in finding out more about the four specialist conferences, please visit: <u>https://www.thesmartere.de/ein-ticket-vier-konferenzen</u>

The smarter E Europe 2022

Date:May 11–13, 2022Venue:Messe München (Halls A1–A6, B1–B6)Exhibition space:132,000 sqmExhibitors:1,450Visitors:50,000+ (expected)

For further information, please visit: <u>www.thesmartere.de</u> <u>www.intersolar.de</u> <u>www.ees-europe.de</u> <u>www.powertodrive.de</u> <u>www.em-power.eu</u>