

Renewable Energy 2021

Contributing editor
John Dewar



Publisher

Tom Barnes
tom.barnes@lbresearch.com

Subscriptions

Claire Bagnall
claire.bagnall@lbresearch.com

Senior business development manager

Adam Sargent
adam.sargent@gettingthedealthrough.com

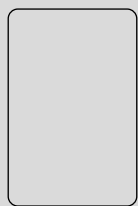
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Contributing editor

John Dewar
Milbank LLP

Lexology Getting The Deal Through is delighted to publish the fourth edition of *Renewable Energy*, which is available in print and online at www.lexology.com/gtdt.

Lexology Getting The Deal Through provides international expert analysis in key areas of law, practice and regulation for corporate counsel, cross-border legal practitioners, and company directors and officers.

Throughout this edition, and following the unique Lexology Getting The Deal Through format, the same key questions are answered by leading practitioners in each of the jurisdictions featured. Our coverage this year includes new chapters on Italy and Poland.

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Every effort has been made to cover all matters of concern to readers. However, specific legal advice should always be sought from experienced local advisers.

Lexology Getting The Deal Through gratefully acknowledges the efforts of all the contributors to this volume, who were chosen for their recognised expertise. We also extend special thanks to the contributing editor, John Dewar of Milbank LLP, for his continued assistance with this volume.



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Germany

Christine Bader and F Maximilian Boemke

Watson Farley & Williams

MARKET FRAMEWORK

Government electricity participants

1 | Who are the principal government participants in the electricity sector? What roles do they perform in relation to renewable energy?

The main regulator for the electricity sector is the Federal Network Agency (BNetzA), an independent higher federal authority based in Bonn. In addition, the federal states each have a local regulator that is competent for a number of tasks relating to smaller distribution networks that do not extend beyond the relevant federal state and to which only a limited number of customers are connected.

The main role of the BNetzA is to ensure non-discriminatory network access and to supervise the grid fees levied by the grid operators. The BNetzA supervises the grid operators with regard to unbundling (of grid and supply activities, as required by law) and with regard to their duties, especially relating to system stability. It also has responsibilities concerning high-voltage grid planning both onshore and offshore.

In relation to renewable energy, the BNetzA is responsible for the implementation of tenders for remuneration under the Renewable Energy Sources Act (EEG) and the Combined Heat and Power Act. It determines the annual rate of EEG surcharge, by which the costs arising from the EEG are rolled to electricity suppliers and end users, and monitors the rolling mechanism. Where the amount of EEG remuneration is subject to the overall growth of installed capacity in a certain period of time, the BNetzA determines and publishes the relevant figures. It has a number of further publication duties regarding renewable energy plants.

The BNetzA does not supervise retail prices; any issues in this regard will be dealt with by the civil law courts or the competition authorities.

A number of other authorities play a role with regard to permitting and planning of grids, as well as generation plants. Permits will be issued by the competent emissions control, construction or mining authorities, depending on the type of project, in the relevant federal state. For offshore wind projects in the German exclusive economic zone, the Federal Maritime and Hydrographic Agency is the permitting authority.

Private electricity participants

2 | Who are the principal private participants in the electricity sector? What roles do they serve in relation to renewable energy?

The principal players can be divided into grid operators on the one hand and electricity producers on the other.

The German transmission system operators are TenneT, 50Hertz, Amprion and TransnetBW. On the level of the distribution grid, there are approximately 900 operators active in Germany. Regarding renewable

energy, the grid operators are responsible for connecting new generation plants to the grid and for transporting the electricity, taking into account that the law provides for priority rights of renewable energy over conventional energy. The grid operators also deal with paying out any remuneration under the EEG; they then pass on these costs under the statutory rolling mechanism. If required for system stability, the grid operators may temporarily limit the production of specific renewable energy plants (but will have to pay compensation under the EEG).

The market for electricity production in Germany is liberalised. A large number of producers are active in Germany, ranging from the 'big four' (ie, RWE, e.on, Vattenfall and EnBW) to small players. In renewable energy, the production landscape is very varied and operators range from large utilities to small players such as local citizen's initiatives or individual owners. Remuneration under the EEG requires for most plants that the energy is sold, and there are numerous offtakers (known as direct marketing companies in line with the terminology used in the EEG) who purchase the energy under relatively standard agreements and then market it at the electricity exchange.

Definition of 'renewable energy'

3 | Is there any legal definition of what constitutes 'renewable energy' or 'clean power' (or their equivalents) in your jurisdiction?

According to the legal definition in section 3, No. 21 of the Renewable Energy Sources Act 2017 (EEG 2017), 'renewable energy' is generated by:

- hydropower, including wave, tidal, salinity gradient and marine current energy;
- wind energy;
- solar radiation energy;
- geothermal energy; and
- energy from biomass including biogas, biomethane, landfill gas and sewage treatment gas, and from the biologically degradable part of waste from households and industry.

Framework

4 | What is the legal and regulatory framework applicable to developing, financing, operating and selling power and 'environmental attributes' from renewable energy projects?

Renewable energy in Germany is supported under the EEG. Initially, statutory feed-in tariffs were paid by the grid operators who took off the electricity. Meanwhile, only small plants still benefit from feed-in tariffs, whereas other installations have to sell the electricity and can receive additional support as a 'market premium' payable by the grid operator, namely the difference between the market price and an 'applicable value' under the EEG.

Under the revised EEG 2017, an auction scheme for renewable energy remuneration was introduced, in line with state aid requirements

by the EU Commission. For new onshore wind, offshore wind, PV and biomass plants exceeding a certain minimum capacity, remuneration under the EEG will only be granted if the operator wins an award in the tender proceedings (by offering a low level of remuneration). The successful bid determines the amount of the applicable value for calculation of the market premium. The auction proceedings are organised by the BNetzA. The dates and available amounts of capacity to be tendered for each type of renewable energy, as well as the requirements for participation, are prescribed by law. EEG remuneration is generally granted for 20 years, starting from the entry of operation of the relevant plant. After the expiry of this period, no further EEG remuneration is available, with one exception: existing biomass plants may participate in the tenders under certain conditions and, if successful, can obtain an additional 10-year remuneration.

The EEG also mentions certain 'environmental attributes', but these play a limited role.

Apart from the prerequisites for EEG remuneration, there are no specific restrictions on constructing and operating renewable energy plants. Permits must be obtained under general rules, and especially environmental law requirements as well as planning law must be respected. One notable exception is offshore wind; after the expiry of a transitional phase, permits will only be granted to operators that were successful in the tender proceedings.

Stripping attributes

5 | Can environmental attributes be stripped and sold separately?

For energy remunerated under the EEG, no certificates are granted. Suppliers or end users who have to pay the EEG surcharge that is levied for the cost of renewable energy support obtain in return the right to label a certain amount of electricity as 'renewable energy, financed by the EEG'. However, such a label is not tradeable. In addition, such energy can be labelled as 'produced regionally'; the register for relevant certificates is administered by the German Federal Environmental Agency.

For electricity from renewable sources but not remunerated under the EEG, renewable energy guarantees of origin (GoO) can be obtained. Such GoO are tradeable, the transfer having to be registered in the national register of GoO. Electricity utilities must obtain the relevant amount of GoO if they want to label the electricity they sell as 'renewable energy'. Given that the vast majority of renewable energy produced in Germany is remunerated under the EEG, the trading of GoO is of limited economic importance.

Government incentives

6 | Does the government offer incentives to promote the development of renewable energy projects? In addition, has the government established policies that also promote renewable energy?

The main governmental incentive for the development of renewable energy projects is the remuneration of renewable energy plants under the EEG. Initially, statutory feed-in tariffs were paid by the grid operators who took off the electricity. Meanwhile, only small plants still benefit from feed-in tariffs, whereas other installations have to sell the electricity and can receive additional support as a 'market premium' payable by the grid operator, namely the difference between the market price and an 'applicable value' under the EEG. For most installations, support requires that the installation was successful in tender proceedings (by offering a low level of remuneration). As renewable plants above a certain size have to sell the electricity and can receive remuneration as a 'market premium', the grid operators are no longer obliged to purchase the electricity from such plants in the 'direct marketing'

regime. However, they are still obliged to connect renewable energy plants to the grid without undue delay and to physically offtake electricity from renewable sources. Under EU Regulation 2019/943 on the internal market for electricity, which is applicable since 1 January 2020, only small renewable plants still benefit from full priority dispatch, but grid operators must still take measures to minimise the downward redispatching of electricity produced from renewable energy sources.

Further legislation aims at promoting renewable energy from the customer side. For example, there is a renewable heat incentive programme that provides subsidies for exchanging old heating systems for heating systems using solar thermal energy, biomass or a heat pump. The Renewable Heat Act sets out rules on the use of these technologies in new buildings. There are also additional stipulations and funding instruments for the use of renewable heat at provincial and municipal levels. In the transport sector, renewable energy is promoted through requirements to reduce the output of greenhouse gases by the use of biofuels and through research programmes for alternative propulsion technologies and fuels. For the production of electricity for self-consumption, the EEG surcharge (which is generally levied on all electricity consumption) will be reduced by 60 per cent if the electricity is produced from renewable energy or in a highly efficient combined power and heat plant.

The German promotional bank KfW offers several financing programmes related to renewable energy. Details are available on the bank's website, www.kfw.de.

7 | Are renewable energy policies and incentives generally established at the national level, or are they established by states or other political subdivisions?

Energy policies and incentives are generally a matter of federal law and established at the national level. This is especially the case for the remuneration of renewable energy generation in the EEG, which is a national law. European law plays an increasingly important role with regard to energy regulation, as well as regarding state aid.

Federal states' policies may be relevant for certain aspects of renewable energy projects. For example, some federal states have more restrictive planning rules regarding the minimum distance between wind energy plants and inhabited space.

Purchasing mechanisms

8 | What mechanisms are available to facilitate the purchase of renewable power by private companies?

Customers are not limited to buying electricity from utility counterparties. Grid owners must not discriminate between customers, so that, in principle, there are no obstacles to direct power purchase agreements. However, direct power purchase contracts with renewable energy producers are not yet commonly seen in the market. In the current market, renewable energy producers usually prefer to sell to direct marketing companies with a view to obtaining the market premium under the EEG. For customers, it is cheaper to buy electricity on the market. However, direct power purchase contracts are starting to become of more interest and this will likely increase in the future, once market prices rise, remuneration under the EEG decreases and the 20-year remuneration period ends for older renewable plants.

Regarding direct power purchase contracts, certain levies will arise. Grid fees will be payable if the public grid is used. And on any supply to final consumers, the EEG surcharge will become payable if no exemption or reduction applies (eg, for energy-intensive companies as defined in the law). This is also the case for on-site production if the operator of the generation plant and the customer are different entities, even within the same group of companies.

In cases of production for self-consumption, the consumer of the energy must be the operator of the energy plant. This does not necessarily entail ownership, but the operator must bear the economic risks of the operation. In that case, the EEG surcharge is reduced by 60 per cent for energy from renewable sources and highly efficient combined heat and power plants. In certain cases, a full exemption applies, for example, if the consumer only uses energy from its own production and does not request EEG remuneration for any amounts of electricity that exceed his or her needs. The law has become more strict, intending to distribute the EEG surcharge (that is, the costs of renewable energy support) more evenly among electricity consumers. Some existing delivery relationships still benefit from grandfathering rules.

Buying renewable energy does not necessarily entail buying directly from producers. A number of utilities as well as energy traders offer green energy products.

Legislative proposals

9 | Describe any notable pending or anticipated legislative proposals regarding renewable energy in your jurisdiction.

The coalition parties expressly declared their support for the Paris climate change agreement in their coalition agreement. However, with the 2020 goals not being met, a federal climate protection act has now been adopted that sets out guidelines for reducing greenhouse gas emissions by at least 55 per cent (compared with the 1990 level) by 2030. Also, a draft law provides for coal exit by 2038, which may be expected to further boost renewable energy.

The latest major reform of renewable energy law, with the EEG 2017 and the Offshore Wind Act, entered into force on 1 January 2017. The reforms introduced tender proceedings for renewable energy remuneration, which was a major system change. For the time being, we do not anticipate further major system changes to renewable energy law. However, certain adjustments have already been made with regard to details of the tender proceedings, and further adjustments, inter alia, regarding the tender proceedings for offshore wind, are currently being discussed and revisions to the EEG may be expected during 2020. We expect that the developments under the new tender system will continue to be monitored and any unwanted results may trigger further adjustments, for example, relating to the capacities available in the tender rounds.

Drivers of change

10 | What are the biggest drivers of change in the renewable energy markets in your jurisdiction?

The nuclear disaster in Japan in 2011 accelerated what is known as 'energy transformation' especially the resolution to exit nuclear energy and also the intention to limit fossil energy production in favour of sustainable electricity, heat and mobility. In the following years, there was a boom in renewable energy projects: in 2019, renewable energy already accounted for approximately 42 per cent of German gross electricity consumption. The EEG prescribes a further growth to 40–45 per cent by 2025, 55–60 per cent by 2035 and at least 80 per cent by 2050.

The increase in decentralised production, however, entails a need to ensure grid stability and grid capacity. An appropriate response is the ongoing expansion of grid capacity both on the level of the transmission grids and the distribution grids. In addition, there are efforts to increase demand-side management and to make feed-in more flexible, including by using energy storage. Smart technological solutions may be expected to form an essential basis of the ongoing energy transformation. A further goal is sector connectivity; that is, using renewable energy to reduce the CO₂ footprint in the heat and mobility sectors.

Disputes framework

11 | Describe the legal framework applicable to disputes between renewable power market participants, related to pricing or otherwise.

Disputes between renewable power market participants are civil law matters. There are no courts specialised in energy matters, so the general civil law district courts have jurisdiction. This includes disputes regarding remuneration under the EEG. As these are paid by the grid operators and not by any authority, such disputes are considered civil law matters.

The EEG provides for a private institution outside the court system known as the EEG clearing house (Clearingstelle), which offers alternative dispute resolution regarding the EEG, the Combined Heat and Power Act and the Metering Point Operation Act. The alternative dispute resolution options include moderated discussions (mediation), assessment of the matters of fact and the legal situation in individual cases ('votes'), and arbitration under the code of civil procedure. The Clearingstelle may further submit opinions to the courts in civil law proceedings, and it may prepare 'indications' or 'recommendations' for the general clarification of questions on the application or interpretation of the law, outside specific court proceedings. In more important proceedings, the Clearingstelle invites comments by industry associations. The alternative dispute resolution offered by the Clearingstelle is regularly used in practice due to its industry experience; in most cases, the outcome is accepted by the parties. The votes, indications or recommendations of the Clearingstelle are not binding on the courts, but provide helpful guidance for private parties as well as the courts.

For disputes regarding decisions of a regulator, the Higher Regional Court has jurisdiction. In the case of the BNetzA, the competent court is the Higher Regional Court of Düsseldorf. Even though the Higher Regional Courts are civil law courts, such disputes are matters of administrative law and in principle follow the rules of administrative court procedure, as specified in the Energy Industry Act.

UTILITY-SCALE RENEWABLE PROJECTS

Project types and sizes

12 | Describe the primary types and sizes of existing and planned utility-scale renewable energy projects in your jurisdiction.

Looking at existing projects in terms of energy output, onshore wind is the largest renewable energy source, followed by biogas/biomethane and photovoltaics.

Sizes of projects vary considerably. The largest projects are offshore wind farms with installed capacities of approximately 288MW to 500MW. However, a number of small onshore wind farms only comprise up to five wind turbines, whereas larger sizes are also common, depending on the availability of suitable space.

Regarding future developments, several offshore wind farms are currently in the planning or construction stage. Also in onshore wind, a considerable number of projects are currently being constructed and with the end of the Renewable Energy Sources Act (EEG) remuneration period approaching for early projects, repowering increasingly becomes of interest. The development of offshore and onshore wind, as well as photovoltaics and biomass at utility-scale, is subject to the development corridors prescribed in the EEG; that is, the installed capacity that is going to be made available in the upcoming tender rounds.

Development issues

13 | What types of issues restrain the development of utility-scale renewable energy projects?

The development of utility-scale renewable energy projects is restrained by the development corridors prescribed by law. Except for offshore wind, capacity could theoretically be built outside the EEG regime. However, in practice, onshore projects in most cases still depend on EEG remuneration and will therefore not be constructed if no award in the tender proceedings is achieved. The limitation of new-build capacity in the EEG is partly because of the costs of the support, and partly because of grid capacity restraints, especially in specific regions. The development corridors currently set out in the EEG are:

- onshore wind: additional capacity of 2,900MW annually from 2020 onwards;
- offshore wind: reaching a total installed capacity of 15,000MW by 2030 (expected to be increased to 20,000MW by 2030 and 40,000MW by 2040);
- photovoltaics: additional capacity of 2,500 annually; and
- biomass: additional capacity of 200MW annually in 2020 to 2022.

Further restrictions result from planning laws in certain regions. The federal states are entitled to enact planning restraints by imposing certain minimum distances between onshore windfarms and inhabited areas. Notably, the federal state of Bavaria has imposed a minimum distance of 10 times the height of the wind turbine, which makes the planning of new wind farms impossible in large parts of Bavaria. Other federal states have also increased the required distances or are considering such measures. Finally, the duration of permitting procedures has recently become an issue with permitting procedures taking about two years at least. Also, court procedures in the case of objections may further delay the permitting process.

HYDROPOWER

Primary types of project

14 | Describe the primary types of hydropower projects that are prevalent.

Hydropower currently does not play a major role in Germany. Most hydropower plants are run-of-the-river plants. There are also a number of pumped storage plants. In 2019, only 8.3 per cent of renewable electricity production resulted from hydropower. From mid-2014 to the end of 2017, the installed hydropower capacity remunerated under the Renewable Energy Sources Act (EEG) increased by only 35MW (less than 1 per cent), mainly because of modernisation and capacity increases of existing plants. In 2018, only an additional 6.8MW was added. There may be a certain potential for increase of capacity, especially by modernisation or reactivation of plants. However, the potential is limited, owing to geographical reasons (conditions being favourable mostly in the south of Germany) and to ecological concerns.

15 | What legal considerations are relevant for hydroelectric generation in your jurisdiction?

Electricity generated by hydropower plants is entitled to remuneration under the EEG without the need to participate in tender proceedings. Smaller plants receive a higher remuneration per MWh than larger plants. New plants will only be entitled to EEG remuneration if they are built in the spatial context of either a dam that already exists in whole or in part, or a new dam that is primarily to be constructed for purposes other than the generation of electricity from hydropower, or if they are built without a complete transversal structure.

Hydroelectric plants require a water law permit. In particular, ecological aspects will be considered in the permitting procedure and may prove to be the most difficult part of the proceedings. Depending on the circumstances, environmental planning may in individual cases exceed the effort needed for technical planning. Other areas of law that may need to be taken into account are spatial planning and construction law and noise protection, which are generally less problematic.

DISTRIBUTED GENERATION

Prevalence

16 | Describe the prevalence of on-site, distributed generation projects.

On-site, distributed generation projects have become increasingly prevalent. This was partly the case because certain ancillary charges could be avoided. However, the law has meanwhile become more restrictive in this regard: if the consumer of the electricity is the operator of the power plant, he or she may benefit from an exemption or at least a reduction of certain ancillary charges such as grid fees and the Renewable Energy Sources Act (EEG) surcharge, depending on the circumstances. In cases of direct selling where the consumer of the electricity is not the owner of the power plant, there are lesser benefits; in particular, the reduction of the EEG surcharge for genuine self-supply will not apply and the full amount of the EEG surcharge will arise. Self-supply cannot be combined with EEG remuneration if the remuneration requires an award in the new auction system; if in such a case a self-supplier has surplus electricity amounts, he or she can sell the electricity, but will not obtain EEG remuneration for feeding such amounts into the grid.

Types

17 | Describe the primary types of distributed generation projects that are common in your jurisdiction.

On-site distributed generation is used by industry and trade as well as by private individuals. The main types of on-site generation projects are combined heat and power plants, especially for industry sites (which may or may not use renewable sources), and photovoltaics. To a lesser degree, other types of renewable energy are also used for self-supply.

For photovoltaic plants of up to 100kW, there is a landlord-tenant privilege: if a landlord operates such plants on residential buildings and sells the electricity to the tenants, he is entitled to extra payments under the EEG for these electricity amounts. In return, the price charged to the tenants must be below the market price. The landlord-tenant privilege so far has only had limited success and discussions on how to improve the regulatory framework are ongoing.

Regulation

18 | Have any legislative or regulatory efforts been undertaken to promote the development of microgrids? What are the most significant legal obstacles to the development of microgrids?

In Germany, the public grid is available throughout the country, and access to the grid is regulated and generally not prohibitively expensive, so electricity microgrids without a connection to the main grid traditionally are not common in Germany. However, 'connected microgrids' are becoming more important owing to the ever-growing number of distributed generation plants. There have been grid design tests where parts of the electricity grid can be isolated from the general grid and operated stand-alone, such as in cases of grid issues or blackouts. Microgrids that are not owned by a grid operator exist at a number of industrial sites, for example.

Certain types of microgrids are not part of the regulated grid. Some types are regulated but exempted from a number of obligations otherwise applicable to grid operators. Other types of microgrids are part of the public grid and fully regulated. The Federal Network Agency (BNetzA) and the regulators of the German federal states have published a joint position paper aimed at clarifying the regulatory position, although difficulties regarding classification and, hence, applicable rules remain in practice.

Other considerations

19 | What additional legal considerations are relevant for distributed generation?

The main obstacle for on-site production is the fact that the definition of genuine self-supply has become more restrictive. The consumer must be the operator of the plant, which must be located in the immediate local vicinity of the place of its use. In both regards, there may be questions of interpretation. BNetzA has published guidelines on self-supply, but a number of questions remain open. If there is a delivery of electricity other than genuine self-supply, additional charges will become due on the electricity, which makes such models less attractive.

ENERGY STORAGE

Framework

20 | What storage technologies are used and what legal framework is generally applicable to them?

While large-scale storage technologies have not been widely used for a long time, this is changing owing to the increased use of intermittent renewable energies. Traditionally, pumped storage was the main technology. Meanwhile, the use of battery storage has increased considerably. Battery storage includes larger projects of several MW, and a growing number of smaller storage batteries are used in combination with photovoltaics, especially for home use. Power-to-gas seems to be promising; a number of pilot projects are already in operation. Compressed air storage is not yet widely used, but research and development works are ongoing. Storage can be used for self-supply and to optimise the value gained from feeding into the grid. New business models for larger storage projects include generating income from providing balancing energy to the grid operators. In the context of sector connectivity, there are considerations to use batteries of parked e-vehicles as storage.

Storage technologies are subject to the general permitting rules. From an energy law perspective, certain special provisions exist; for example, if renewable energy is stored and later fed into the grid, remuneration under the Renewable Energy Sources Act (EEG) is available under the same conditions that would have applied to the relevant energy source without storage (but storage losses are not reimbursed). The rules further aim at avoiding double burdens to storage plants, for example, by providing that the EEG surcharge will not be payable twice (namely on the electricity stored in the storage device and again when the electricity is withdrawn and consumed elsewhere). For certain newly built storage plants, the law provides for exemptions from grid fees.

Development

21 | Are there any significant hurdles to the development of energy storage projects?

There are no significant hurdles to the development of storage projects. However, further legislative measures seem desirable to help with making storage economically viable and to accelerate its development.

FOREIGN INVESTMENT

Ownership restrictions

22 | May foreign investors invest in renewable energy projects? Are there restrictions on foreign ownership relevant to renewable energy projects?

Foreign investors may invest in renewable energy projects and, in fact, regularly do so. Only in the case of the acquisition of very large projects by non-EU nationals or companies, the Federal Ministry for Economic Affairs and Energy (BMWi) is entitled to review whether or not the acquisition of such 'critical infrastructure' should be refused for security reasons. For energy generation, the relevant threshold is 420MW, covering, for example, large offshore wind farms. To obtain legal certainty, an investor may apply to the Ministry for a declaration of no objection.

Equipment restrictions

23 | What restrictions are in place with respect to the import of foreign manufactured equipment?

There are no special restrictions with respect to the import of foreign manufactured equipment to be used for renewable energy projects.

For imports from within the EU, no import duties or tariffs apply. For imports from outside of the EU, the tariff system enacted by the EU will apply. EU anti-dumping measures regarding solar panels expired in September 2018. Importers of electrical equipment such as solar panels have to comply with the obligations under the Electrical and Electronics Equipment Act (ElektroG), such as registration and take-back and recycling obligations.

PROJECTS

General government authorisation

24 | What government authorisations must investors or owners obtain prior to constructing or directly or indirectly transferring or acquiring a renewable energy project?

For the construction and operation of renewable energy projects, the required permits under applicable law must be obtained. These depend on the type of project – for example, construction permits, permits under immission control law, water law permits or mining permits may be required. If an applicant meets the legal requirements for a certain permit, such permit must be granted. As part of the permitting procedure, an environmental impact assessment may be required.

Transferring or acquiring renewable projects is generally possible without authorisation. However, foreign investment control may apply to large projects and transactions may be subject to the general merger control rules.

Offtake arrangements

25 | What type of offtake arrangements are available and typically used for utility-scale renewables projects?

Utility-scale renewables projects will have to participate in 'direct marketing' to receive Renewable Energy Sources Act (EEG) remuneration. The relevant agreements with offtakers are not regulated, but certain market standards have evolved. The sellers of the electricity will usually review the financial standing of the offtaker, and may request payment securities. In most cases, these are bank guarantees; parent company guarantees may also be acceptable. In cases where utility-scale renewables projects sell directly to an end-user, such power purchase agreements are not subject to energy regulation.

If the project receives a feed-in tariff – for example, in case of older projects not subject to the direct marketing obligation – the relevant grid operator is the offtaker. In such cases, no agreement is required. There is no payment security, but given that the grid operator can roll the EEG payments that are paid by end consumers by way of the EEG surcharge, the credit risk seems rather limited.

Procurement of offtaker agreements

26 How are long-term power purchase agreements procured by the offtakers in your jurisdiction? Are they the subject of feed-in tariffs, the subject of multi-project competitive tenders, or are they typically developed through the submission of unsolicited tenders?

Renewable energy projects in most cases do not sell via long-term power purchase agreements. 'Direct marketing' agreements are often not concluded for longer terms. Like other types of power purchase agreements (which are not yet prevalent in Germany but expected to become more important), these are negotiated agreements not subject to energy regulation.

Installations that are not entitled to a feed-in tariff have to sell the electricity and can receive additional support as a 'market premium' payable by the grid operator, namely the difference between the market price and an 'applicable value' under the EEG. Under the revised EEG 2017, an auction scheme for renewable energy remuneration was introduced, in line with state aid requirements by the EU Commission. For new onshore wind, offshore wind, PV and biomass plants exceeding a certain minimum capacity, remuneration under the EEG will only be granted if the operator wins an award in the tender proceedings (by offering a low level of remuneration). The successful bid determines the amount of the applicable value for calculation of the market premium. The auction proceedings are organised by the BNetzA.

Operational authorisation

27 What government authorisations are required to operate a renewable energy project and sell electricity from renewable energy projects?

The construction and operation of renewable energy projects is subject to the general rules. Certain general rules for running a business must be observed, but no specific additional authorisation is required. Electricity suppliers to household customers must submit a notification to the Federal Network Agency (BNetzA).

Decommissioning

28 Are there legal requirements for the decommissioning of renewable energy projects? Must these requirements be funded by a sinking fund or through other credit enhancements during the operational phase of a renewable energy project?

The permit of the project may request that a plant is decommissioned if it is no longer operational or if the permit has expired, and it may request security for the expected decommissioning costs. Such security is usually provided as a bank guarantee.

Operators of plants for the generation or storage of electrical energy with an installed capacity of 10MW or more have to notify an intended closure to the transmission system operator and BNetzA at least 12 months in advance. The transmission system operator can request that the operation continue if the plant is required for the stability of the electricity supply.

TRANSACTION STRUCTURES

Construction financing

29 What are the primary structures for financing the construction of renewable energy projects in your jurisdiction?

Owing to the Renewable Energy Sources Act (EEG) remuneration and the stable cash flows that may be expected, renewable energy plants are well suited to debt financing already in the construction stage. In addition, numerous equity investors are active in the market, ranging from large institutional investors and fund companies of different sizes to local citizens' cooperatives. Equity investors may prefer to acquire only after commissioning of the project, but increasingly investors are also seen to be taking on construction risks or even development risks. The most common model is a combination of equity investment and debt financing.

Operational financing

30 What are the primary structures for financing operating renewable energy projects in your jurisdiction?

In general, the financing structures during the operating phase are similar to those in the construction phase. A mix of long-term debt financing and equity investment is seen in the market. Some equity investors still prefer to invest only in the operating phase, rather than taking construction risks.

UPDATE AND TRENDS

Recent developments

31 Describe any market trends with respect to development, financing or operation in the renewables sector or other pertinent matters.

Although additional capacity is still required to reach the envisaged production thresholds, the market for onshore wind energy in Germany is currently stalled. The auctions regarding onshore wind are regularly under-subscribed. In 2019, the installed capacity only increased by 2.3GW, compared with growth of 4.9GW in 2018. The main reasons for this are restrictions regarding available locations and the permitting procedures which now take about two years on average (excluding any additional court procedures) and are challenged more regularly. It is being said that it will be most important for the German legislator to find ways to speed up the permitting process to overcome the current bottleneck.

In its decision dated 28 March 2019 (C-405/16 P), the European Court of Justice annulled earlier decisions of the European Commission and of the General Court, which ruled that the Renewable Energy Sources Act (EEG) constitutes state aid. The European Court of Justice, however, decided that the EEG was not based on and did not include any state aid. The main argument was that no public resources were involved, but that the state only established the 'rules of the game' under the EEG. It is generally assumed that Germany (and other member states) gained more flexibility in the design of legal frameworks aimed at avoiding the issues connected with a classification of a renewables promotion scheme as state aid. However, this may change because of proposed changes to the financing of the EEG costs, with a view to lowering the EEG surcharge, which is payable by the end-users of electricity.

32 | Describe any notable pending or anticipated legislative proposals.

A draft bill published by the government in May 2020 proposed several changes regarding renewable energy. Most notably, the government intends to remove certain privileges for citizens' onshore wind projects which were misused and have not proven to be effective.

Another draft bill published in June 2020 intends to increase the goal for offshore wind of 15GW by 2030 to 20GW, and a long-term goal of 40GW by 2040 is to be introduced. Following several projects with zero bids in the offshore wind auctions (ie, subsidy-free projects), the draft now proposes changes to the auction design for offshore wind projects that would allow for negative prices. This means that the developer would offer to make payments to the grid operator in order to be successful in the auctions. Relevant industry associations argue that this proposal is flawed and contracts for difference should be introduced instead.

Further changes may be expected, such as deletion of the 52GW cap, which currently limits the EEG remuneration of PV plants. This may likely be included in an Act that otherwise deals with changes to the rules on renewable heat and energy efficiency and is expected to be voted by the parliament in early summer 2020.

Finally, the German government adopted a national hydrogen strategy in June 2020. The implementation of this strategy is also likely to cause amendments to the EEG, since the national hydrogen strategy foresees that electrolyses facilities shall not have to pay the EEG surcharge.

WATSON FARLEY
&
WILLIAMS

Christine Bader
cbader@wfw.com

F Maximilian Boemke
mboemke@wfw.com

Neuer Wall 88
20354 Hamburg
Germany
Tel: +49 40 800 084 0
Fax: +49 40 800 084 410
www.wfw.com

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