Solar Package I

significant envisaged adjustments

Oppenhoff

Status: April 2024

Overview on the Solar Package I

Legislative process since Q3 2023

- first cabinet draft from August 2023
- in December 2023: adoption of few regulations for wind power
- political consent on amended draft on April 15, 2024

Reducing bureaucracy and acceleration

- strengthening the expansion of ground-mounted plants
- simpler processes for PV plants (*photovoltaic plants*) on roofs and buildings
- changes to the EEG (*Renewable Energies Act; the draft is hereinafter referred to as EEG-D*), the EnWG (*Energy Industry Act*) and other German laws, ordinances, etc.

Context

- builds on the expansion targets of the EEG 2023 (80% renewable energies by 2030)
- implementing the sustainability goals of the UN 2030 agenda

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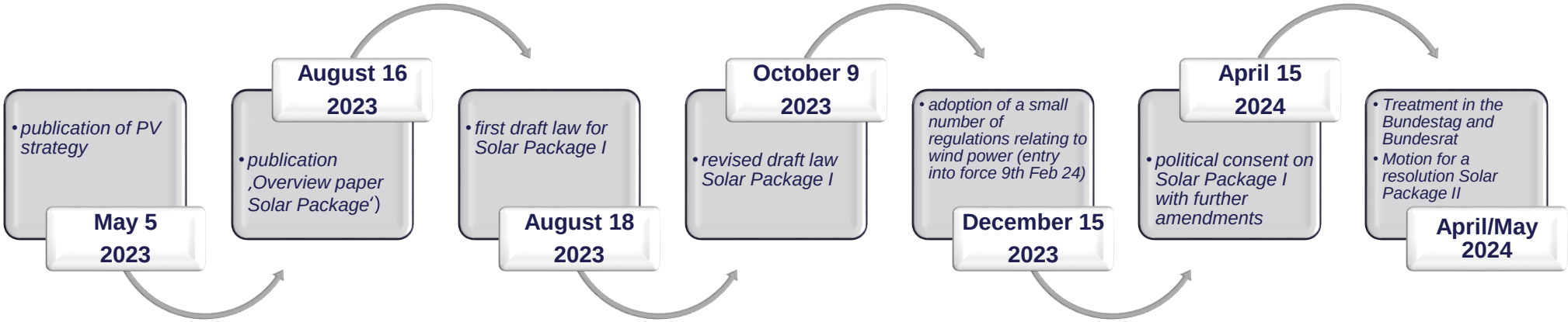
Legislative process – from the PV strategy to entry into force



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Solar Package I – innovations for ground-mounted plants

Minimum nature conservation criteria

- **all** ground-mounted plants, with the exception of special solar plants, must fulfill at least **three of five minimum criteria** to receive funding (sec. 37 para. 1a EEG-D):
  - the modules cover a maximum of 60 % of the area of the overall project;
  - biodiversity-promoting maintenance concept under the plant (mowing only twice a year or special pasturing);
  - passability for animal species is ensured (permeability for small animal species and if at least one side of the plant is at least 500 m long: migration corridors for large animals);
  - 10 % of the plant area: creation of site-adapted types of biotope elements (e.g. native shrubs and hedges or sowing the areas with species-rich regional seeds);
  - soil-conserving operation of the plant (no pesticides or fertilizers and cleaning of the plant only with biodegradable agents if cleaning is not otherwise possible).

Bid value

- the bid volume per bid may not exceed **50 MW** (sec. 37 para. 3 EEG-D)

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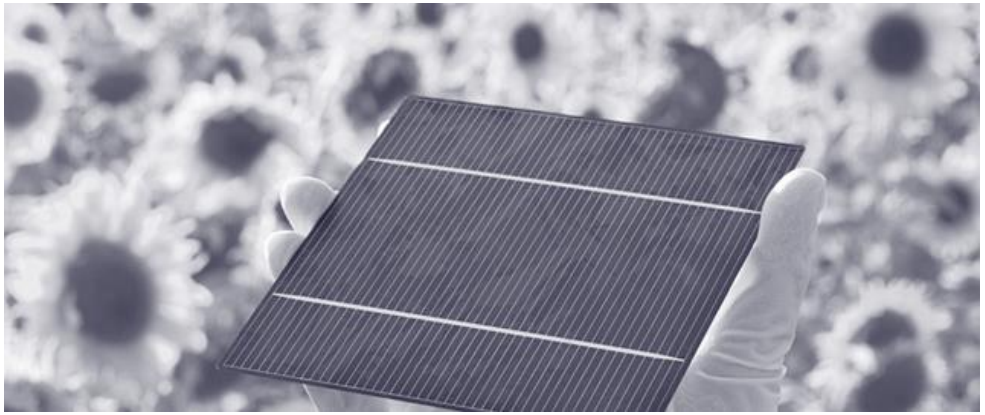
Solar Package I – innovations for ground-mounted plants (2)

New regulations for subsidies for special solar plants (‚*Besondere Solaranlagen*')

- concerns Agri-PV (means dual use agriculture and PV; min. 2.1 m height or 0.8 m if vertical), Floating-PV, Peat-PV and Parking-lot-PV
- introduction of a new sub-segment in the tenders with an **adjusted maximum value** (= maximum bid value) pursuant to sec. 37b para. 2 EEG-D
  - amounts to **9.5 ct/kWh in 2024** (for comparison, the maximum value for ground-mounted plants in 2024: 7.37 ct/kWh)
  - **from 2025** on, it will be calculated from the average of the highest bids with an award from the last three bidding dates and increased by 8% (just as for normal ground-mounted plants), up to a **maximum of 9.5 ct/kWh**
  - the German Federal Network Agency (‚*BNetzA*') can set the maximum value for the next twelve months if the tenders provide indications that the maximum value is too high or too low (sec. 85a EEG(-D), as is already the case for normal ground-mounted plants)
- the ‚***anzulegender Wert***' (relevant for the remuneration) will **increase** by **2.5 ct/kWh** in 2024, and from 2025 by the difference between the maximum bid value and the value in sec. 48 para. 1 EEG 2023 (currently 7 ct/kWh)

Award procedure for special solar plants and EU approval

- initially **300 MW** will be put out to tender in **2024**, then the quantity will be **increased annually** until 2,075 MW are put out to tender in 2029
- the admissible bids without an award will also be taken into account in the normal award procedure for ground-mounted plants
- the new funding regulations requires EU Commission's **approval** according to the **State aid rules** (sec. 101 EEG-D)



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Solar Package I – innovations for ground-mounted plants (3)

Maximum level of PV plants on agricultural land

- regulation applies to all PV plants on agricultural land (Agri-PV, normal PV, etc.)
- it is no longer possible to submit bids for such plants, if the installed capacity of PV plants on agricultural land commissioned since 2023 exceeds 80 GW in Germany (sec. 37 para. 4 EEG-D)
- from 2031 on, this threshold will be increased to 177.5 GW

Adaptation of the regulations for disadvantaged areas

- so far, federal states had to designate disadvantaged areas (‚*Benachteiligte Gebiete*' = areas that are to be used preferentially for PV due to their locational disadvantage or structural weakness) ("**opt-in**") so that subsidies for PV plants on arable land or grassland (without simultaneous cultivation with, for example, Agri-PV) were possible.
- sec. 37c EEG-D changes the system to "**opt-out**"
  - the state governments **can exclude** arable land and grassland that is not to be farmed at the same time from the **tenders**
  - it must be ensured that the area covered by PV plants amounts to more than 1.0% of the country's agricultural land by the end of 2030, and more than 1.5% thereafter

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Solar Package I – acceleration for grid connections

Right to lay cables sec. 11a EEG-D

- owners and authorized users of **public** land and traffic routes must generally tolerate the laying, construction, maintenance, repair, protection and operation of cables
- the operators of these cables may enter and drive on the properties and, with a permit agreement or special use permit, also on public traffic routes for this purpose
- this generally only applies to **the most economically advantageous connection**
- applies accordingly to **electricity storage systems** and systems for the production or storage **of green hydrogen**
- the claim can also be enforced by means of **interim relief** (*‚einstweiliger Rechtsschutz'*); the **need for urgency is rebuttably presumed**
- compensation: **5% of the market value** of the area used when the cable is commissioned; however, claims for damages by the owner or authorized user remain unaffected

Only for wind turbines: Right to pass sec. 11b EEG-D

- owners and authorized users of **public** land and traffic routes (not highways) must tolerate the crossing and overturning of the land for the **erection** and **dismantling** of wind turbines as well as the upgrading of the land for the crossing by the operator of the wind turbines and by third parties commissioned by him
- maintenance is not mentioned

Securing in rem is no longer absolutely necessary due to the legal regulation. However, due to the long periods of use of PV plants and the dynamic changing the legal framework, it may still make sense to secure cable rights in rem. It is still advisable for private owners anyway.

Our practical recommendation

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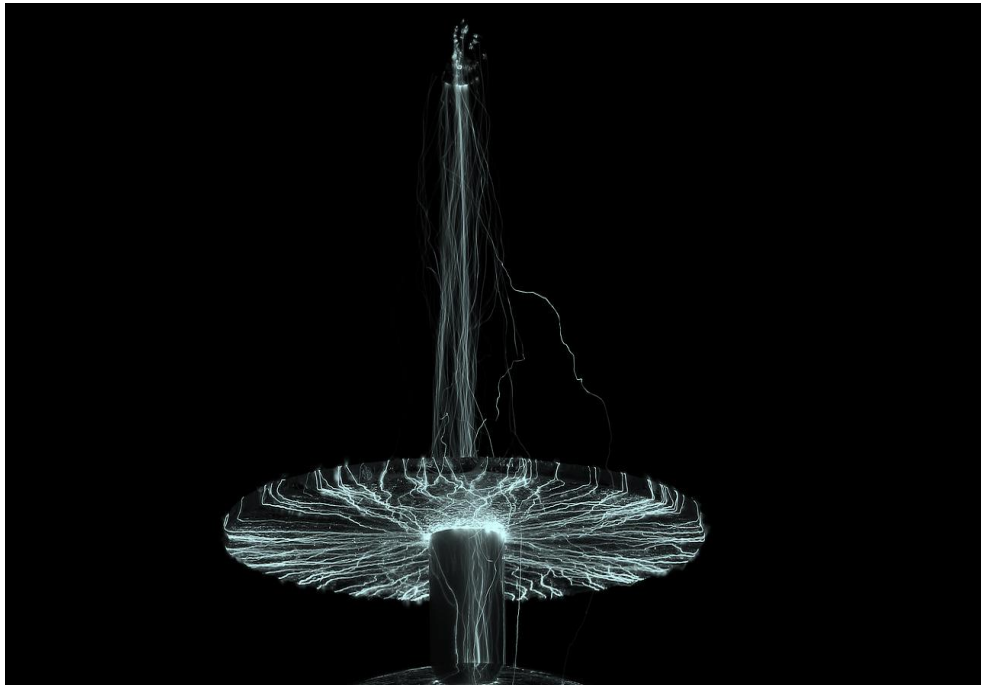
Solar Package I – acceleration for grid connections (2)

Technical terms of connection (TTC) – sec. 19 para. 1a, 1b EnWG-D



- TTCs of grid operators that **contradict** the minimum technical requirements (TRS) of the VDE (Association for Electrical, Electronic & Information Technologies) are **invalid** (sec. 19 para 1a, 4 EnWG-D)
- additions to TTCs are subject to **strict conditions** (necessary for the safety and reliability of the electricity grid) and must be **justified**
- specifics that are expressly provided for under TRS remain permissible
- the structure of the TTC must correspond to that of the TRS, whereby additions and clarifications must be identified separately
- regulations apply from **2025** (sec. 118 para. 53 EnWG-D)

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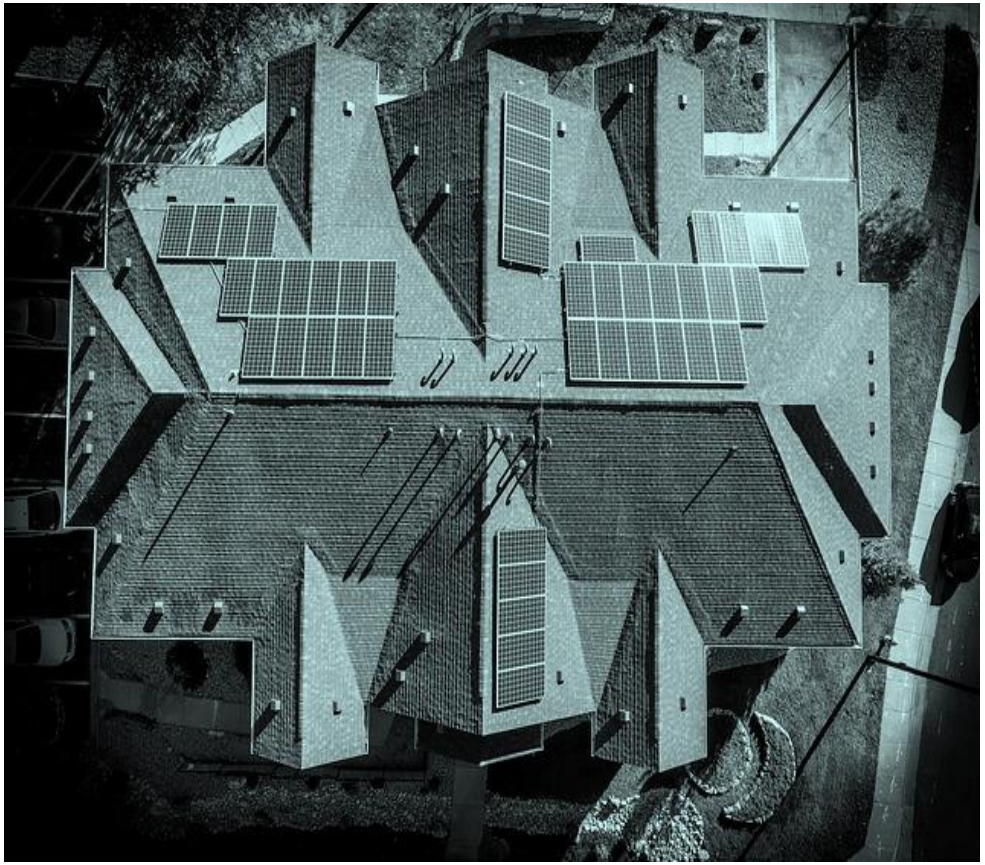
Solar Package I – acceleration for grid connections (3)

Expansion of simplified grid connection procedure

- the adjustment of sec. 8 para. 5 cl. 3 EEG-D extends the simplified grid connection (‚*vereinfachtes Netzanschlussverfahren*') to plants with an installed capacity of **up to 30 kW** that are located on a property with an existing grid connection
- in case grid operators do not provide the exact schedule for processing the grid connection request within one month, plants up to 30 kW can be connected in compliance with the technical regulations by the plant operator
- same applies to plants **up to 100 kW** if the grid operator does not inform within eight weeks of submission of the complete documentation that the existing grid connection is not yet technically suitable (sec. 8 para. 6 cl. 3, para 6a EEG-D)
- for systems up to 100 kW with full feed-in and their own metering equipment, the electricity consumption of the inverters can in future also be billed via the supply contract for the house connection (sec. 10c EEG-D)



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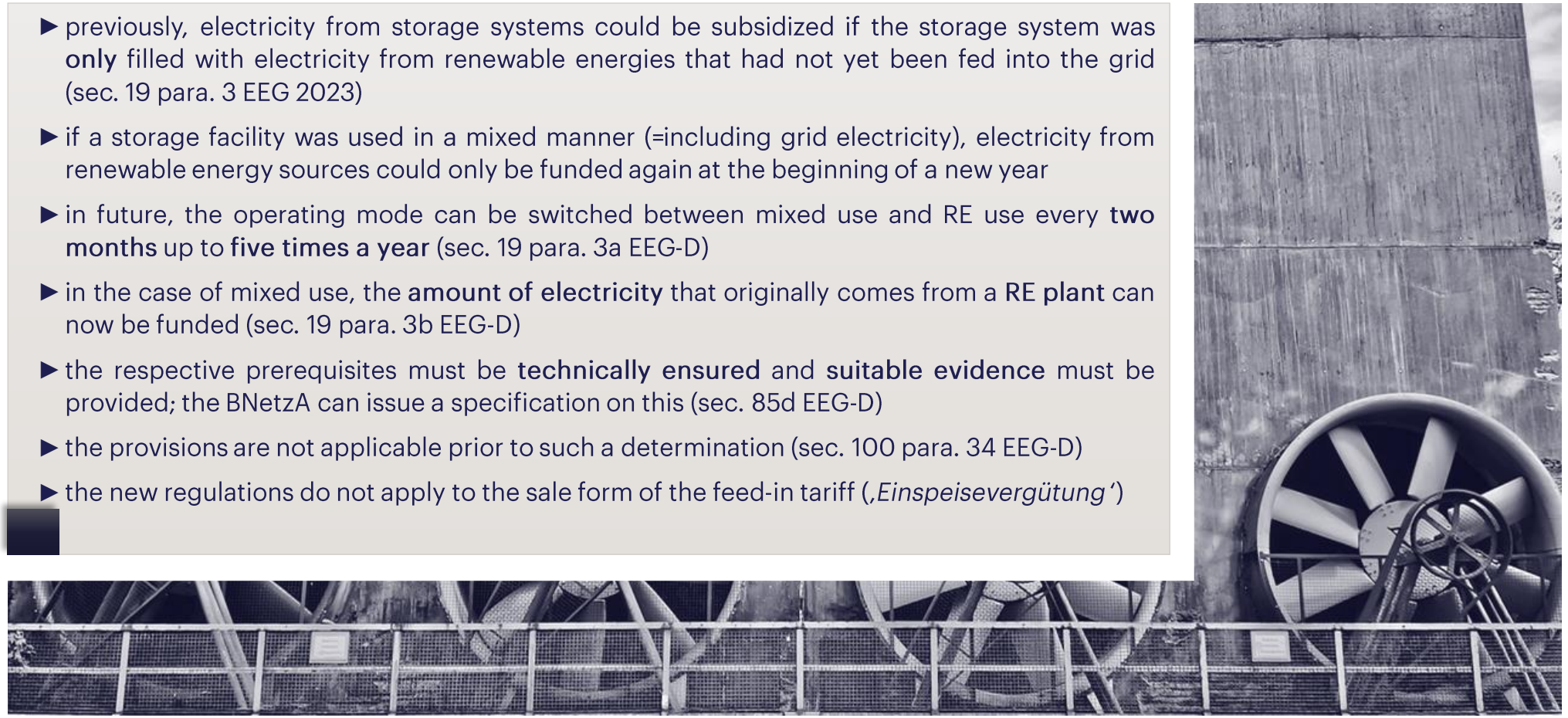
Solar Package I – electricity storage

Conceptual reorganization of funding sec. 19 para. 3a, 3b EEG-D

- previously, electricity from storage systems could be subsidized if the storage system was **only** filled with electricity from renewable energies that had not yet been fed into the grid (sec. 19 para. 3 EEG 2023)
- if a storage facility was used in a mixed manner (=including grid electricity), electricity from renewable energy sources could only be funded again at the beginning of a new year
- in future, the operating mode can be switched between mixed use and RE use every **two months** up to **five times a year** (sec. 19 para. 3a EEG-D)
- in the case of mixed use, the **amount of electricity** that originally comes from a **RE plant** can now be funded (sec. 19 para. 3b EEG-D)
- the respective prerequisites must be **technically ensured** and **suitable evidence** must be provided; the BNetzA can issue a specification on this (sec. 85d EEG-D)
- the provisions are not applicable prior to such a determination (sec. 100 para. 34 EEG-D)
- the new regulations do not apply to the sale form of the feed-in tariff (*‚Einspeisevergütung'*)



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Solar Package I – strengthening consumption close to production

Shared building supply sec. 42b EnWG-D (‚*gemeinschaftliche Gebäudeversorgung*')

- new, independent model alongside tenant electricity, in which only the solar electricity generated on or in the building or an annex is provided and consumed for participating end-consumers (‚*teilnehmende Letztverbraucher*') in the same building (**no full supply** as with tenant electricity and **no subsidy**)
- the prerequisite for this is that

(1) there is **no grid pass-through,**

(2) the reference quantities are measured **every quarter of an hour**, and

(3) a **building electricity usage contract** (‚*Gebäudestromnutzungsvertrag*') is concluded between the operator of the building electricity plant (‚*Gebäudestromanlage*') and the end-consumer

- the building electricity usage contract regulates, among other things, the right to purchase electricity via a **distribution key** for the participating end-consumers, the **price** as well as operation, service and maintenance of the building electricity plant
- the mathematical allocation of the electricity in a quarter of an hour to the participating end-consumers is based on the allocation key (‚*Aufteilungsschlüssel*"; in case of doubt in equal shares) and is **limited** by the **amount of electricity generated on** the one hand and the **consumption of the participating end-consumers on** the other hand
- the participating end-consumers must **procure the remaining electricity needs themselves**

‚If the electrical energy generated by the building electricity plant is not or only partially consumed by the participating end-consumers, the electrical energy not consumed can be fed into the general supply grid in accordance with the applicable regulations, whereby remuneration under the EEG can also be claimed if applicable.'

Explanatory memorandum, BT-Drs. 20/8657, p. 107

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Solar Package I – strengthening consumption close to production (2)

Expansion of the tenant electricity model sec. 21 para. 3 EEG-D

- in future, the tenant electricity model (‚*Mieterstrommodell*') becomes generally applicable to all buildings and their ancillary facilities, **not just to residential buildings**
- according to sec. 100 para. 22 EEG-D, this applies to solar plants that are commissioned after the Solar Package I has entered into force

Supply without subsidy (‚*unentgeltliche Abnahme* ')

- if this new form of remuneration is selected, **the value to be applied is reduced to zero**, sec. 21 para. 1 no. 2 EEG-D; plants with an installed capacity of over 100 kW (which are therefore subject to the direct marketing obligation) and high self-consumption are to benefit from this
- in these cases, the costs of direct marketing (‚*Direktvermarktung* ') may outweigh the profits and supply without subsidy offtake may then make sense
- in case of commissioning until the end of 2025 applicable for an installed capacity up to 400 kW (sec. 100 para. 18 EEG-D), thereafter up to 200 kW

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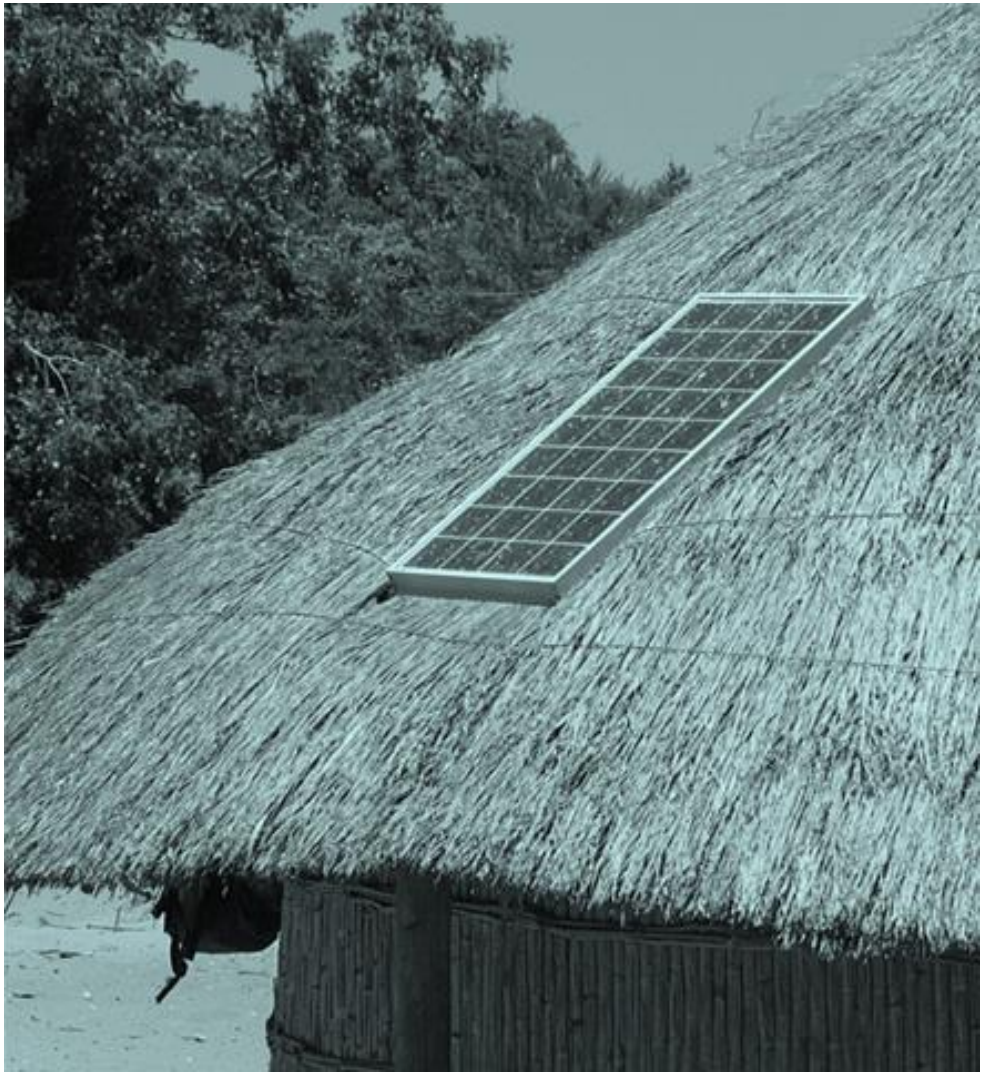
Solar Package I – PV on, at and in the building

Funding for building-PV

- the *‚anzulegender Wert'* (relevant for the remuneration) for plants **above 40 kW** on, at or in a building or noise barrier **increases** by **1.5 ct/kWh** (sec. 48 para. 2 EEG-D)
- the **tendering limit** decreases from 1 MW to **750 kW** (sec. 22 para. 3 cl. 2 no. 1a EEG-D)
- the tendering volumes will be significantly **increased** (e.g. +55 % in 2024, sec. 28b para. 2 EEG-D)

Bundling of Plants sec. 9 para. 3, sec. 24 para. 1 EEG-D

- the bundling of plants (*‚Anlagenzusammenfassung'*) for the determination of the installed capacity does not apply to solar plants that have **separate grid connection points** and that are installed on, at or in a building



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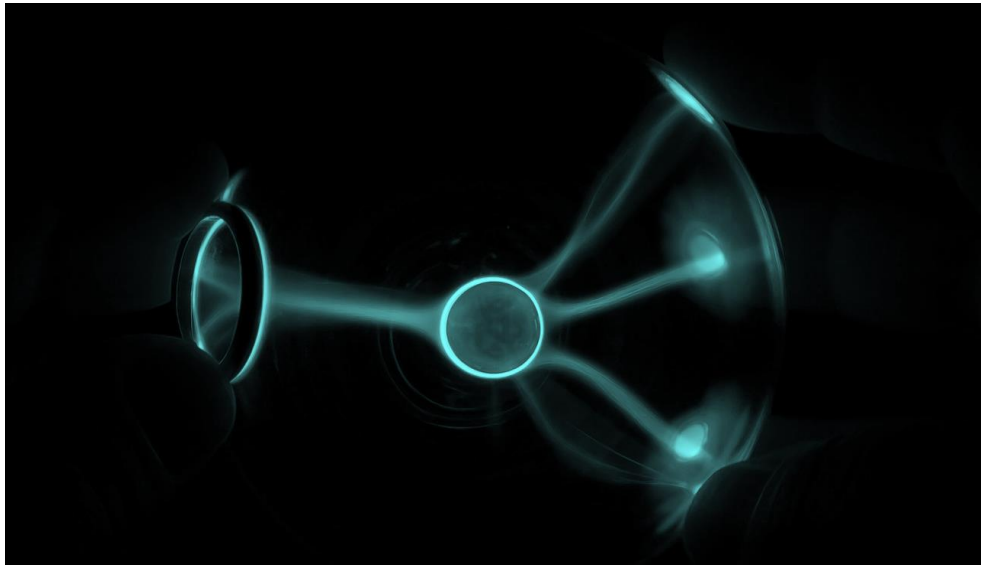
Solar Package I – PV on, at and in the building (2)



Plug-in solar plants (‚*Stecksolargeräte*') sec. 3 no. 43 EEG-D

- are devices consisting of one or more solar plant(s), an inverter, a connecting cable and a plug for connection to the final circuit of an end-consumer
- can be connected and operated with an installed output of up to 2 kW and an inverter output of up to 800 volt-amperes without notification to the grid operator; only a notification in the Market Master Data Register is required (‚*Marktstammdatenregister*')

Repowering building PV sec. 38h cl. 2 EEG-D

- in future, a **new subsidy entitlement** with a subsidy period of 20 years can be established for the **additional installed capacity** provided the regular statutory requirements are met

Simplification of direct marketing up to 25 kW

- the statutory requirements for the technical equipment of plants in direct marketing will only apply to plants above 25 kW in future (sec. 10b para. 1 EEG-D)
- at parties' discretion, they can contractually agree on specific technical equipment, if required

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Solar Package I – adjustments to the regulation of sanctions

Cushioning of undue hardship sec. 52 para. 3 cl. 2 EEG-D

- to date, plant operators must make **payments to the grid operator** in accordance with sec. 52 EEG in case of breach of EEG provisions or the Market Master Data Register Ordinance (**EUR 10 per kW of installed capacity**)
- the change means that the **payment** for the month in which the breach of duty occurs and for the following month would **no longer apply,** if the breach occurs due to a **defect in a technical device**

Sanction for ground mounted plants sec. 52, 53, 54 EEG-D

- **special solar plants:** in accordance with sec. 85c para. 1 cl. 4 EEG-D, the BNetzA will stipulate the requirements for **continuous proof** of simultaneous crop cultivation; if proof is not provided, the *‚anzulegender Wert'* will be **reduced** by **2.5 ct/kWh**
- **other ground-mounted plants:** violations of the new minimum nature conservation criteria will be penalized

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Outlook for the Solar Package II

Motion for a resolution by the SPD, Green Party and FDP

- according to a resolution proposed by the governing parties, a further Solar Package II should also ensure better integration of solar power and less dependence on products from China
- the motion for a resolution is to be passed together with the Solar Package I in the Bundestag

Ground-mounted plants

- review of approval requirements and remuneration structure for Parking-lot-PV
- targeted promotion of small Agri-PVs
- facilitations of the area backdrop for Floating-PV
- easier planning permission procedures; e.g. waiving of the building permit (‚*Baugenehmigung* '), if a development plan (‚*Bebauungsplan* ') is in place

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Outlook for the Solar Package II (2)

Building PV

- structural and technical requirements for PV plants on roofs and plug-in PV are being further optimized (e.g. spacing requirements and use of larger modules)
- interaction with monument protection will be further adapted (PV plants are classified as a priority concern)
- eliminating difficulties regarding direct access to direct marketing

Tenant electricity and shared building supply

- introduction of regulations on electricity from PV roof plants used for heat pumps to enable simple billing as part of the operating cost statement
- investigation into expanding the shared use of PV electricity using the public power grid (‚*energy sharing*')

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