Pilot tender for solar PV

www.ens.dk/en/solarPV
Agenda

14.00 – 14.15 Welcome and short introduction  
Morten Bæk, Director General of the Danish Energy Agency

14.15 – 15.00 Presentation of the Danish PV tender  
Ellise Kiersten Jensen, Advisor  
Rasmus Zink Sørensen, Special advisor  
Dijana Dmitruk, Advisor  
the Danish Energy Agency

15.00 – 15.30 Grid connections of PV installations in Denmark  
Jan Rasmussen, Senior Consultant, the Danish Energy Association

15.30 – 15.45 Registrations of installations and payment of price premium  
Louise Rønne Christensen, Head of Department, Energinet.dk

15.45 – 16.00 Closing remarks and supplementing questions  
Jane Glindvad Kristensen, Head of Department, the Danish Energy Agency

16.00 – 16.30 Networking opportunity with the Danish Energy Agency and Energinet.dk
Danish PV tender

1. Timeline
2. Tender vs. existing framework
3. Size and location of bids
4. Award criterion and procedure
5. Price premiums
6. Obligation and penalty
7. Contracts
8. Cooperation with Germany
Timeline
Tendering phases

**Preparation**
- Legal basis
- Tender conditions
- Cooperation agreement
- State aid approval

**Tender**
- Call for bids
- Evaluation
- Contract signing

**Construction**
- 2 years (grid connection)
- Extensions possible
- Guarantee active

**Production**
- Support payments
Preparation phase

- Legal Act on PV pilot tender
- Draft tender conditions (consultation)
- Final tender material
- Call for bids
- Legal Act enter into force
- State aid approval by European Commission
- Cooperation agreement
Tendering phase

Call for bids
- 2nd half of 2016
- Preparation of bids
- Deadline for submission

Evaluation of bids
- Consistency check with tender conditions
- Lowest bids win
- The DEA announce winners

Contract signing
- Provide bank guarantee
- Bid binding for 3 months
- Submission of timetables
Tender vs. existing framework
Tender vs. existing framework

Existing framework:

- Feed in tariff set by law
- Energinet.dk responsible for trading
- Energinet.dk responsible for balancing
- Self consumption possible
- No support for installations above 500 kW
- Only installations in DK

Draft tender conditions:

- Fixed premium based on bids
- Owner responsible for trading
- Owner responsible for balancing
- No self consumption
- No support for installations above 2.4 MW
- Partial opening for installations in DE
Size and location of bids
Size of bids

Allowed

- One installation at 2.4 MW
- A number of installations at a total of 2.4 MW
- One installation smaller than 2.4 MW
- A number of installations at a total of less than 2.4 MW
Size of bids

Not allowed

One installation at more than 2.4 MW

A number of installations at a total of more than 2.4 MW
Location of installations

• No limitations in the current draft tender conditions

• Not clarified if limitations in national German PV tenders will apply to German locations in the Danish tender

• Planning approval is not required at the time of the bid

• Location of each installation must be specified in the bid

• Locations cannot be changed after the bid has been submitted
Award criterion and procedure
Hypothetical bidding curve
Bids from projects outside Denmark

DKK/MWh

20 MW
Effect of the 2.4 MW limit for projects outside Denmark

Including the bid which makes the sum exceed 2.4 MW
Effect of the 2.4 MW limit for projects outside Denmark

Bids from projects outside Denmark which cannot be included in the 2.4 MW

DKK/MWh

20 MW
Effect of the 2.4 MW limit for projects outside Denmark

DKK/MWh

20 MW
Hypothetical bidding curve after removing bids for projects outside Denmark in excess of 2.4 MW.
Winning bids

Including the bid which makes the total sum exceed 20 MW

DKK/MWh

20 MW
Explaining the maximum of 4.799 MW

The sum of a number of cheapest bids is 2.399 MW.

The next bid is for 2.400 MW. This bid is accepted because a part of it is within the limit of 2.4 MW.

The sum of accepted bids is 2.399 MW + 2.400 MW = 4.799 MW
Price premiums
Fixed premium

The draft tender conditions concern a fixed premium.

The premium is a fixed amount for electricity produced when the price of electricity is positive.

No premium is paid for electricity produced when the price of electricity is zero or negative.

Day ahead prices in the price zone where the installation is connected to the grid will apply.

Example: Without premium

![Graph showing value of production vs. electricity price. The graph shows a linear relationship where the value of production increases as the electricity price decreases. The x-axis represents electricity price (DKK/MWh) ranging from -500 to 1500, and the y-axis represents value of production (DKK/MWh) ranging from -500 to 1500. The line begins at -500 on the x-axis and increases linearly to 1500 on the y-axis.]
Fixed premium

The draft tender conditions concern a fixed premium.

The premium is a fixed amount for electricity produced when the price of electricity is positive.

No premium is paid for electricity produced when the price of electricity is zero or negative.

Day ahead prices in the price zone where the installation is connected to the grid will apply.

Example: A fixed premium of 500 DKK/MWh
Pay as bid

The draft tender conditions use the pay as bid principle to determine the premium for each installation.

Each winning project will receive the premium asked for in the bid.

This is likely to result in a number of different premiums to the winners.
Support period

Support for 20 years

But max 23 years from the contract was signed
Obligation and penalty
Obligation to construct

A winning tenderer enters a contract with an obligation to construct and obtain grid connection of the installations included in the bid.

2 year time limit for grid connection with possibility of extensions.

Causes for extending the time limit:

- Circumstances relating to the Danish Energy Agency.
- Circumstances arising for which the successful tenderer is without fault and over which the successful tenderer has no control, for example war, extraordinary natural events, fire, strikes, lockout or malicious damage.
- Public orders or bans which are not caused by circumstances attributable to the successful tenderer.
- Decisions by a board of appeal to stay proceedings on account of an appeal regarding regulations about planning of land use.
Penalty for non compliance

Penalty of **180 DKK per kW** covered by the contract, which is not connected to the grid before the time limit.

Financial guarantee covering the maximum penalty.

Guarantee obligation will lapse when 95 % of the capacity has been connected.
Contracts
Contracts

Contracts to be concluded with the winners in the tender

Rights and obligations for the duration of the support period will follow from the contracts

Non-negotiable
Partial opening
Requirements for the opening  
(the Act on the Pilot Tender for Solar PV)

• EEA member state

• Direct electrical connection to Denmark

• Cooperation agreement
Cooperation with Germany on the mutual opening of solar PV tenders

• Cooperation agreement currently under negotiation

• Statistical transfers


• The final content of the tendering conditions, e.g. the type of price premium and other design elements, will reflect relevant considerations necessary for Denmark to enter into a cooperation agreement with the EEA country in question
Content of a bid
Content of a bid

Price
• DKK/MWh

Description of the tenderer
• Name of the tenderer
• CPR no. (personal registration no.)/CVR no. (central business registration no.)
• Telephone no.
• Email
• Ranking of the bid, if the tenderer submits several bids with the same price premium

Description of the installation(s)
• Address of each installation
• Name of each installation
• Installed capacity of each installation and all the installations together.
• Coordinates of the location(s)

Declarations
• Commitment to construct installations
• No unpaid dept due to public authorities in DK
• Compliance with any requirements to repay illegal or incompatible state aid
• No other state aid for the same installations